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MONEY AND BANKING

By HORACE WHITE

Revised and enlarged by CHARLES S. TIPPETTS, PH. D., Dean of the School of Business Administration, The University of Pittsburgh, *and* LEWIS A. FROMAN, PH. D., Assistant Professor of Economics, School of Business Administration, The University of Buffalo

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NEW EDITION

GINN AND COMPANY

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PREFACE TO THE SIXTH EDITION

When we were requested by the publishers to undertake the revision of Mr. White's famous volume *Money and Banking* we thought that we would merely bring the historical narrative up to date, and we so planned our task. Some of our friends and colleagues in other universities suggested, however, that we should do more than that. They thought that an effort should be made to add enough new material so that it might be used as a textbook. This advice we have followed, and we hope that our efforts have not been unsuccessful.

In many ways it would have been easier, perhaps, to write a completely new volume. Those who know Mr. White's book as it appeared in earlier editions will, we hope, sympathize with the great difficulties presented in reorganizing, revising, and enlarging some of his chapters. Probably one third of the book remains as Mr. White left it in his last revision in 1914. Chapters III, IX–XI, and XVIII–XXI remain practically as he wrote them. Chapters V–VIII, XII–XIV, XXIII–XXX, and XXXII are new.

The names of publishers of those books listed for reference purposes which are still being printed have been supplied. Other books, although out of print, are doubtless to be found in libraries, etc.

As the work of revision progressed, our respect for the industry and scholarship of Mr. White increased steadily. How he managed to keep so closely in touch with what was happening in so many portions of the world was a continual source of amazement to us. We have, therefore, endeavored not to modify his major conclusions in any drastic manner. In some cases, however, it seemed necessary to do so, and we must assume the responsibility and gracefully accept the criticism which may be directed against us.

Mr. White was an advocate of "hard money," an ardent believer in the gold standard, and the soundest of sound-money men. Because we do not feel quite so certain or confident as he regarding the meaning of "sound" money and how to secure it, we hope that were he alive today he would not be too critical of what we have done. Most of us probably feel that we know less about monetary and banking theory today than we thought we did in 1929. We cannot but wonder what Mr. White would think had he lived through the chaos of the past five years.

Yet, all was not quiet, secure, and peaceful in the realm of money and banking during the years of Mr. White's active work. We have reprinted the major part of the prefaces which he wrote for the five editions through which this volume progressed. May we ask you to read these prefaces carefully? They describe in a brief form the monetary and banking perplexities of 1896, 1902, 1908, 1911, and 1914. We believe you will be impressed, as we were, by the clearness with which they reveal that seldom in our history have we been free from vexing problems of a monetary and banking nature. No wonder that upon occasion Mr. White expressed himself in no uncertain terms.

We deem it a rare privilege to have been permitted to undertake this task. It has been a fascinating one and from our point of view eminently worth while. We endeavored to make a revision which we thought would interest our own students. Whether we have been successful is not for us to decide.

C. S. T.
L. A. F.

PREFACES TO THE EARLIER EDITIONS

PREFACE TO THE FIFTH EDITION

The fourth edition of this work was printed in 1911. It was occasioned by the publication of the plan for currency reform proposed by Senator Aldrich, chairman of the National Currency Commission. That plan was not put in the form of a bill for enactment by Congress. Mr. Aldrich himself soon thereafter ceased to be a member of the Senate; the Republican party, in the elections of 1910, lost control of the House of Representatives; and the plan slumbered. The national election of 1912 gave the Democratic party control of both legislative and executive branches of the government. Congress took up the banking and currency question, and framed and passed the Federal Reserve Act of December 23, 1913. The national banks of the country have accepted the plan, and the process of organizing the new system is now on foot. It will doubtless be in practical operation before the end of the present year.

In the movement of public opinion which has led to this action, three significant steps have been taken. In the Aldrich-Vreeland Act of 1908 asset currency was authorized, although none has actually been issued. In the plan of the National Monetary Commission a central bank system was outlined and indorsed, although not distinguished by that name, and provision was made for the eventual abandonment of bond-secured currency altogether. In the Federal Reserve Act a series of central banks has been provided for and made compulsory, and the same abandonment of bond-secured currency has been formulated. Finally, the government has taken supreme control of the Federal reserve system by means of a board at Washington City, appointed by the President of the United States. This does not mean control of the national banks in their separate capacity. Still less does it mean control of the state banks and trust companies, which now constitute about one-half of the banking power of the country.

H. W.

MARCH, 1914

PREFACE TO THE FOURTH EDITION

During the past three years a marked change in public sentiment regarding the money question has forced its way into the national councils. In the act of May 30, 1908, the two houses of Congress, for the first time since the Civil War, agreed that a bond-secured currency was not the only kind of bank paper fit to circulate in the community. Although

no bank notes have been issued under the act, authority exists to issue them on the security of commercial paper owned by the banks and retained by themselves in associations formed for the purpose.

The preconceptions of the past having been shaken, other steps followed. A National Monetary Commission was formed, which has collected and published a mass of facts, of legislation, and of historical and general information on the subject of banking far exceeding in magnitude anything ever brought together heretofore in the world's history. Most, if not all, of this compilation is well worth its cost, for although no person can be expected to read the whole of it, all who are qualified to take part in the discussion, and in the working of framing monetary legislation, can readily find in it what they need.

Another indication of the drift of opinion is found in the act of Congress providing for the issue of bonds for the construction of the Panama canal, which are not available for security for national-bank circulation. These are the first bonds so issued since the national banking law was passed. It implies that the government now looks to the end of a bond-secured currency.

What is to take its place has not yet been decided. The chairman of the National Monetary Commission has outlined a plan for a Reserve Association of America, with a capital of $300,000,000, which shall be the fiscal agent of the government and be owned by the national banks participating in proportion to their capital,— their shares not to be transferable. The American Bankers' Association has given a favorable reception to the plan through its Executive Council. Altogether there is now a fair prospect of legislation in some form which shall give us a flexible currency redeemable at all times in gold, and a loan market for commercial paper of standard grade which shall be available at a rate of discount uniform in all parts of the country where participating banks exist.

H. W.

PREFACE TO THE THIRD EDITION

When the second edition of this work was published in 1902 the question of the standard of value, which had been in dispute for a quarter of a century, had been definitely settled in favor of gold. This was a long step toward stability in the medium of exchange, but some unsettled questions still remain.

There are $346,000,000 of legal-tender notes outstanding. Whatever reasons there might have been for their existence in 1862 have long since passed away. They are a menace to the business interests of the country, an expensive kind of circulating medium, and a stumbling-block to currency reform. At every panic or unusual pinch in the money market we hear demands for fresh issues of legal-tender notes, and every movement in Congress for a more elastic bank-note system is met by similar de-

mands. The greenbacks ought to be put out of existence by redeeming $150,000,000 of them with the gold now held for that purpose, and by canceling the rest as fast as they come into the Treasury, or by funding them in bonds to be sold at not less than par.

The Independent Treasury, established sixty years ago for the purpose of divorcing the government from the money market, has worked contrary to the intentions of its framers, and has resulted in abuses far greater than those which it was expected to correct. Thus we have seen public money, to the amount of hundreds of millions of dollars, deposited in banks without interest and distributed and redistributed among them according to the caprice or favoritism of the Secretary of the Treasury. Abuses more flagrant than any that were charged against the Bank of the United States in President Jackson's time are of common occurrence and pass almost unnoticed. The excuse for these transactions is that the keeping of public money locked up in the Treasury would be artificial contraction of the currency, that it would bring on a panic, and that it would be the greatest abuse of all. This plea is virtually an accusation against the government as a whole for looking at this growing evil supinely and without remedial action for twenty years.

We have a bank-note currency incapable of adjustment to the varying demands of trade. It is lacking in the element of elasticity which is the *raison d'être* of a bank's circulation. Such changes of volume as occur take place in long undulations, so that expansion does not become effective until after the immediate demand for it has ceased, and when the demand has ceased and contraction ought to follow, it is prevented or retarded by law. To retire $100,000,000 of redundant notes requires eleven months' time under the present statute. The alternative is the exportation of gold or the heaping up of a surplus in the central reserve cities, thereby promoting unhealthy stock speculations. Both of these operations are going on at the present time. There is also a gorge of $60,000,000 of bank notes in the Treasury now — notes sent in for redemption and actually redeemed, but which the clerical force of the department, although recently increased for this purpose, is inadequate to handle and to return to the issuing banks. This $60,000,000 represents a call loan due from the banks to the government, a loan involuntary on both sides, and it has been growing for several months, although the government has been struggling like Laocoön to cast off the incumbrance.

This ironbound currency would have come to a timely end by the payment of the national debt had not its adherents devised a scheme for extending, for some thirty years, $600,000,000 of bonds maturing in 1904, 1907, and 1908, thus putting an unnecessary burden of interest on the taxpayers and preventing the government from using its surplus to pay its debts. The existence of a growing surplus without such an outlet is a prolific source of demoralization, leading to ruinous extravagance in public expenditures. This is so grave a menace that one of the greatest

blessings to the country possible at the present time would be a Treasury deficit. This blessing we are likely to find soon.

The panic of 1907 brought the country to a realization of the fact that there is something radically wrong in our banking system. Business conditions in the United States in the period preceding the panic were not unlike those prevailing in the commercial world generally. Our resources were greater than those of any other country, yet ours was the only one afflicted by a general bank suspension. Why was the richest country in the world prostrated by the financial gale, while all others stood upright? Why did we remain prostrate two months, struggling desperately, with illegal shinplasters, to pay the wages of labor and to carry on retail trade? This question needs an answer before the next cycle of speculation comes to an end.

H. W.

NEW YORK, JUNE, 1908

PREFACE TO THE SECOND EDITION

The first edition of this work was published seven years ago. The intervening time has brought changes in our financial legislation, but still greater ones in public opinion.

The Civil War left us a legacy of monetary problems which might have received solution soon after the restoration of specie payments, had not the silver question been precipitated into the field of debate. At bottom this was a question whether gold or silver should be our standard of value, and until it was settled no question of lesser importance could gain the public ear. The election of 1896 settled it in favor of gold, — a fact attested in the gold standard act of March 14, 1900. This act is no longer called in question except by those who think that it falls somewhat short of its declared aims. Opposition to the principle embodied in it is no longer heard.

H. W.

NEW YORK, MARCH, 1902

PREFACE TO THE FIRST EDITION

On the 25th of February, 1862, the Government of the United States made its paper evidences of debt legal tender between individuals. The nation was thus sent upon the wrong road, and has been toiling in a wilderness ever since. In addition to the injustice which it wrought, the legal-tender act filled the public mind with misconceptions and delusions on the subject of money. So it came to pass that although we adopted irredeemable paper with the greatest reluctance, we were willing to flounder in it fourteen years after the supposed necessity for it had passed away. Then, partly by design, partly by chance, we resumed specie payments; but the people had, to a large extent, lost sight of the

fundamental principles of money. The misconceptions and delusions remained, the most dangerous and widely prevalent being the notion that mere quantity is a desirable thing, and that the Government can produce quantity and ought to.

It is the aim of this work to recall attention to first principles. For this purpose it has been deemed best to begin at the beginning of civilized life on this continent and to treat the subject historically. The science of money is much in need of something to enliven it. If anything can make it attractive it must be the story of the struggles of our ancestors with the same problems that vex us. The reader will find an abundance of these in the following pages. Indeed, a complete and correct theory of money might be constructed from events and experiences that have taken place on the American continent, even if we had no other sources of knowledge. This may be said of the science of banking also. All the wisdom and all the folly of the ages, as to these two related subjects, have been exploited on our shores within the space of less than three hundred years.

Very few persons, if any, are satisfied with our present monetary condition. While I write these lines a withdrawal of $2,350,000 gold from the Treasury causes a fresh tremor and confusion of tongues. Everybody assures everybody else, and tries to assure himself, that it is of no consequence. Probably no harm will come of it, but why should it be noticed at all, except by a few dealers in foreign exchange? Because the public Treasury undertakes to maintain the ultimate gold reserve of the country, and because people doubt whether it can do so at all times. Are these doubts unreasonable? The only law on the statute book really effective for the discharge of this obligation was passed in 1862 for a different emergency, had been forgotten a quarter of a century, and was discovered by accident the last day in the afternoon. As regards the act of 1875 (under which gold was twice procured last year for the replenishment of the Treasury) it is a matter of dispute whether it is still in force, or whether it lapsed when specie payments were resumed. A dispute on such a question is itself an incentive to panic. Moreover, everything depends upon the mood and temper of the Administration for the time being whether such powers as the law confers shall be exercised wisely and promptly, or exercised at all.

Now suppose that the Government were out of the banking business altogether, its fiat money retired, and the Treasury restricted to its normal and proper business of collecting and disbursing the public revenue. In that case the duty of redeeming the paper circulation, and maintaining a sufficient gold reserve for the purpose, would devolve on the banks, and would be discharged automatically. The banks would learn by experience how large a reserve is required generally. In emergencies, when, for any reason, more should be required, they would obtain the means from their maturing bills receivable. This would come to them

either in the shape of their own circulating notes, thus lessening the call upon them for gold, or in gold itself, which the mercantile community would be obliged to procure and send in to them. Of course this implies a curtailment of discounts, but curtailment is not avoided under the present system. The curtailment in the panic of 1893 was as severe as it could ever be if the banks were solely responsible for the redemption of the paper circulation. But probably there would have been no panic at all at that time if the Government had been restricted to its proper business, and had not been issuing fiat money in large quantities.

It is thus apparent that the first step toward a rational system is the retirement and cancellation of the legal tender notes and the restriction of the Treasury to the duties for which it was originally and solely designed. When this is done the public mind will be so cleared that other reforms, and especially banking reform, may be hopefully undertaken.

Although banking is here treated historically, this volume must not be taken as a history of banking. I have merely selected such parts as serve to illustrate the principles of the science, to show what should be striven for and what avoided. The work of John Jay Knox, published after his death in Rhodes' *Journal of Banking*, was left in an unfinished state. If his life had been spared to give it the completeness and finish of his lesser work on "United States Notes" there would have been little left to be desired. Under the circumstances there is still room for such a work, which should be a coördination of facts and principles showing the movement of ideas.

My opinion is that the Scotch bank system is the best in the world and that we might borrow from it, as the Canadians have done, to our advantage. There are only ten banks in Scotland, but they have nearly one thousand branches, reaching every hamlet in the nation. Deposits are received and loans are made at each branch, but the branches pay out only the notes of the bank, which are redeemable at the head office. So it is necessary to have real money only in one place instead of perhaps one hundred different places. At the branches the bank's circulating notes answer the purposes of retail trade, while checks drawn against deposits answer all other purposes. Thus the maximum of business is done with the minimum of capital, which is the *raison d'être* of banking. In other words, credit has been systematized in Scotland to the last degree, and is found to answer all purposes so long as the paper sovereign can be converted into the gold sovereign at some convenient commercial center, at the pleasure of the holder.

I have been writing on these subjects in lectures and magazines several years. Thus the greater part of the chapters on the Gold Standard was published in a pamphlet in 1893, but it has been rewritten and important additions made. There may be some other passages that the reader has seen before, but the text is my own except where credit is given to others.

NEW YORK, AUGUST, 1895 H. W.

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MONEY AND BANKING

CHAPTER I

THE NATURE AND EVOLUTION OF MONEY

Definition of Money. Money is anything which is voluntarily and widely accepted in exchange for commodities and services; it is the generally accepted medium of exchange and passes freely from hand to hand without any reference to the character or credit of the person offering it. Many authorities believe that money must always be a commodity which has value for other than monetary uses. This, they argue, is the only kind of *real* money. When they observe the existence of a medium of exchange which has no commodity value, they assert that it is received only because it can be redeemed ultimately in a commodity which is the *real*, or basic, money.[1] When a country is on a gold standard, these authorities contend that the only real money is gold. All other kinds of media of exchange will be accepted by the people only because they know they can, in some manner, redeem them in gold.

Originally Money Was usually a Commodity. It is true that if we study the history of money we find that until comparatively recent times the only generally acceptable medium of exchange

[1] Mr. White believed strongly that real money must always be a commodity, something that was the product of labor. Our paper circulating media and coins were, in his opinion, only *promises* to pay money. Historically this seems to have been true, but the definition given above is more in accord with modern usage. It is interesting to note that in the first edition, published in 1895, Mr. White gave a somewhat broader definition: "Money is anything that serves as a common medium of exchange and measure of value. It need not be a good measure; it is only necessary that it should be the agreed measure of any time, place, or people."

was, in most cases, a commodity of some kind. This commodity had some other use besides serving as money. It is also true that it was usually the product of labor. Some of the earliest forms of money of which we know were salt, silk, furs, dried fish, wheat, rice, olive oil, coconut oil, tea, cloth, tobacco, sea shells, and the teeth of various kinds of animals. Sometimes the use as a commodity was for human consumption, but frequently it was for personal adornment. Generally the commodity came to be used as money only because it was highly desired for other purposes. The monetary use, therefore, grew out of its commodity use. The commodity came to have value because it was relatively scarce and widely desired. Because it had value it would be received in exchange for other commodities and services and hence came to be used as money.

Modern Money not necessarily a Commodity. In our modern economic systems, however, to hold to such a narrow concept of money does not seem to accord with the facts. Custom and tradition play a large part in the monetary habits of peoples. A curious example of this is the fact that certain tribes in Arabia and Africa refused at one time to accept the Maria Theresa dollar, which began to be coined in Vienna in the middle eighteenth century, unless certain dates were on the coin. The same dollars with other dates were unacceptable. The last hundred years are full of examples of cases where people gladly accepted paper money that could not be redeemed in gold. During the World War, and for several years thereafter, this was true. It was also true from 1931 to 1935, when a large number of countries were off the gold standard and operating on a paper-money basis. When the United States suddenly departed from the gold standard early in 1933, Americans did not refuse to take paper money. The fact that Federal reserve notes, national-bank notes, and greenbacks could not be redeemed in gold made little difference in ordinary trade. We had become accustomed to taking paper money, and we kept on doing so. Why? Because we knew others would take it. We knew we could pass it on to someone else. A situation of this kind could continue for years; in fact, it has done just that in many countries in times past.

Paper Money May Be Real Money. We are frequently told, nevertheless, that the only reason people will take paper money when it cannot be redeemed in gold is that they believe it will again be redeemable at some not distant future. It is highly doubtful whether the majority of people reason in this manner. Most people know little or nothing about monetary theories or monetary standards. They understand next to nothing concerning monetary systems. England was off the gold standard from 1914 to 1925, France from 1914 to 1928; some other countries have been on a paper standard for over twenty years; a number have been on paper more years than they have been on gold or silver during the last half-century. Provided nothing happens to impair confidence in paper money, such as the fear that it may become worthless through a large increase in the amount outstanding, it will continue to be an acceptable medium of exchange. As Edie says:

> Although gold has become the preferred standard money of most countries, nevertheless it does not follow that other objects cannot serve the same purpose.... A paper standard is entirely conceivable. Indeed, most countries during the World War abandoned a gold standard and adopted paper standards. Such paper moneys were originally promises to pay gold to the bearer on demand, but when gold convertibility was abandoned, these promises became ineffective. Of course, there was always the hope that some day the paper moneys would again become convertible into gold, but in extreme cases this hope became so dim as to be negligible. From these war-time experiences, it is necessary to admit that it is possible to have a pure paper money without any reference to specie backing. The unit of account would be a paper certificate, perhaps simply stating, "This is a dollar." If custom and habit induced people to accept these paper counters freely in exchange for commodities and if governments declared them to be legal tender, they would serve the purposes of a true money.... It is not being argued that this kind of paper instrument would be a desirable form of money. It is merely being claimed that, whether good or bad, it would at least be real money.... From a purely pragmatic standpoint the money works.[1]

[1] Lionel D. Edie, *Money, Bank Credit and Prices*, pp. 3–4, 60. Harper & Brothers.

We must, therefore, conclude that money need not be a commodity. It need not be the product of labor, and it need not have value in itself. As Edie says, money without these qualities may not be the best money, but it is, nevertheless, *real* money.

Are Checks and Other Credit Instruments Money? In the United States, England, Canada, and certain other parts of the British Empire the great majority of transactions are accomplished by means of checks and other credit instruments, such as notes, drafts, and bills of exchange. A note is a *promise* to pay; a check, draft, or bill of exchange, an *order* to pay. Are these credit instruments to be included under our definition of money? It will be remembered that we stated that money must pass freely from hand to hand without any reference to the character or credit of the person offering it, and be a generally accepted medium of exchange. Therefore it is inadvisable to call these instruments money. They perform a large and important service, without which commerce and trade would be difficult; but since in most cases they do not circulate freely, we cannot call them real money. They are rather *promises* or *orders* to pay money.

Since checks on bank deposits are used to pay for commodities or to meet obligations, they may also be regarded as *substitutes* for money. A number of writers refer to checks as deposit currency, bank money, check currency, or a form of credit money. From the point of view of actual usage there is some justification for this terminology, since in the United States probably 90 per cent of all commodities and services sold are paid for by checks instead of actual money; but, strictly speaking, it is not accurate.

The Importance of Money. Our present economic system is frequently described as a money economy. A large part of our daily activities consist of the making and spending of money incomes. Practically all articles that enter into trade are bought and sold for a price in terms of money. Most business transactions are executed on a monetary basis. Books and accounts of large and small corporations and firms are kept in terms of money. The value of stocks of goods, real estate, human services, debts, mortgages, and all kinds of securities are expressed in money.

During the last hundred years many of our most important economic problems have been monetary problems. During the long depression beginning in 1929 statements were made on every hand that many of its causes were of a monetary nature. In fact, one important group of students of the business cycle claim that if we could manage our monetary systems properly our depressions would be less severe. Insufficiency of buying power, or a lack of money, has been offered as an explanation for the long duration of the present depression.

One of the objects of the NRA (National Recovery Administration) was to increase wages and employment so as to raise the nation's buying power. The AAA (Agricultural Adjustment Administration) endeavored to do the same thing for the farmer by reducing the supply of agricultural products and livestock so that he could secure higher prices. We were told that the farmer was getting too little money for his products or that the manufacturer was getting too much. It was argued that the prices of the things the farmer bought and the prices of the things he sold were out of adjustment and must be brought into equilibrium.

Some people maintain that if the money in circulation kept pace with the production of commodities, we should never have severe depressions. Others claim that if money only circulated faster, more goods could be sold and depression would give way to prosperity. Therefore they advocate a system of "stamped scrip" to speed up the velocity of the circulation of money. They would require those who hold money on a certain date — every Wednesday, for example — to buy a two-cent stamp and place it on the money. As a result, they argue, people would try to spend their money quickly to avoid having to buy these stamps.

Major C. H. Douglas, a British engineer, feels that depressions are caused by a shortage of purchasing power. He has worked out an intricate plan under which the government would issue a form of check on a National Dividend Account to consumers so that they could buy more. His system is called the Douglas Social Credit Plan. Late in 1934 the Townsend Plan for paying every

person over sixty years of age $200 a month, from funds raised by a sales tax, was securing many adherents. We will discuss some of these proposals at greater length in the following pages.

There are economists who claim that money is a comparatively unimportant factor in modern life. But anyone who has lived through the years following the war must labor long and diligently if he endeavors to justify this position. Most of the important countries of the world had painfully returned to some form of the gold standard by 1928. But in September, 1931, many persons were startled to learn that England had abandoned it again, an example promptly followed by many other countries. Early in 1933 the United States joined the list of paper-standard countries, but returned to a much modified form of the gold standard in January, 1934, after reducing the pure-gold content of the dollar from 23.22 to 13.71 grains. This is called devaluing the dollar.

The monetary chaos of "the dismal 30's" lends strength to the statement of the late Alfred Marshall, the distinguished British economist, that money is the nucleus around which economic science clusters.

The Evolution of Money. Aristotle gives the following definition of money and account of its origin:

It is plain that in the first society (that is, in the household) there was no such thing as barter, but that it took place when the community became enlarged: for the former had all things in common, while the latter, being separated, must exchange with each other according to their needs, just as many barbarous tribes now subsist by barter; for these merely exchange one useful thing for another, as, for example, giving and receiving wine for grain and other things in like manner. This kind of trading is not contrary to nature, nor does it resemble a gainful occupation, being merely the complement of one's natural independence. From this, nevertheless, it came about logically that as the machinery for bringing in what was wanted, and of sending out a surplus, was inconvenient, the use of money was devised as a matter of necessity. For not all the necessaries of life are easy of carriage; wherefore, to effect their exchanges, men contrived something to give and take among themselves, which, being valuable in itself, had the advantage of being easily passed from hand to hand for the needs of life — such as iron or silver or something else of that kind, of which they first determined merely the

size and weight, but eventually put a stamp on it in order to save the trouble of weighing, for the stamp was placed there as the sign of its value.[1]

According to Aristotle, then, money came into existence because of the difficulties which arose in carrying on trade by barter. This point of view was formerly common. According to it the development of money was due to a rational choice: men discovered that commodities could not be easily exchanged in a barter economy; therefore they devised a common medium of exchange. Some treatises go at great length into the reasons why barter was an unsatisfactory method of exchanging goods. It should not be necessary to do so; we will merely summarize them.

Under a barter system there is a *lack of double coincidence in exchange.* For example, an individual wishes to trade hatchets for a canoe. The difficulty may not be to find someone with a canoe, but someone who will trade a canoe for hatchets. Again, *it is impossible to express values and prices accurately.* Every article must be quoted in terms of other articles. In certain parts of the world intricate systems have been developed for comparing values. In one such case six buffaloes were equal either to one man slave, six large jars, twelve small jars, or twenty mats. It can easily be seen how hard it is to secure an easy *divisibility* of the various articles exchanged into desirable fractions for exchange purposes. There can be no extensive market for goods.

Barter still Exists. Although in most parts of the world barter has been displaced by the use of some form of money, it still exists among certain native tribes and in certain communities. In some country districts in the United States it is still common, especially in the South. In a number of these cases it is not pure barter, inasmuch as the value of the commodities exchanged is expressed in money. In central Europe for several years following the World War many instances of this kind of barter appeared, frequently between the countries themselves. It has again reappeared in many parts of the world since 1930.

[1] *Politics*, I, 9.

In the United States at the depth of the depression, in 1932, there were established in a number of leading cities barter exchanges where certain commodities could be brought in and others taken away. Among the most interesting of these projects were the following: the Unemployed Citizens' League of Seattle, the Natural Development Association of Utah, the Los Angeles Co-operative Exchange, the Unemployed Citizens' League of Colorado, the Organized Unemployed, Inc., of Minneapolis, the Dayton (Ohio) Productive Units, and the Midwest Exchange, Inc., of Yellow Springs, Ohio. The Emergency Exchange Association, Inc., with a large advisory staff, was organized in New York City to give advice on the formation of barter exchanges. It was estimated that well over three hundred of such barter exchanges were in existence in 1933. Professor Frank D. Graham of Princeton proposed in 1932 a plan for putting the unemployed to work on a national basis on a program which resembled in some aspects a barter system.[1] In 1934 Upton Sinclair proposed his End Poverty in California (EPIC) Plan, also similar to a widespread barter scheme; workmen in one factory were to trade their products for those of workmen in other factories.

The large number of bank failures from 1930 to 1933 left hundreds of towns and villages without any banking facilities whatsoever. As a result barter became fairly common. Farmers traded their products at the stores. There are many stories to the effect that professional men, such as lawyers, doctors, and dentists, received everything from foodstuffs to fuel and clothing for their services. Painters, paper-hangers, carpenters, and others in these communities frequently paid their debts by working for their creditors.[2] It should be emphasized, however, that in most

[1] Frank D. Graham, *The Abolition of Unemployment.* Princeton University Press.

[2] Mr. White gave the following as his opinion in the fifth edition of this work (p. 10): "All trade is barter, or the exchange of property and service for other property and service. This is true when wheat is exchanged for gold, and gold for cloth. Here are two acts of barter to accomplish one result, namely, the procuring of cloth for wheat. The word "barter" is commonly used to signify the exchange of property without the use of money. It must be borne in mind, however, that all trade is barter, even when the precious

of these recent instances products and services were expressed in monetary terms, although no money may actually have been used.

The Origin of Money. We are frequently told that as mankind passed through the hunting and fishing, pastoral, and agricultural stages of development, in each stage a particular kind of commodity was used for money. For example, in the hunting and fishing stage money was believed to have consisted of sea shells, skins, furs, weapons, fishhooks, salt, dried fish, and animals' teeth. At one time, in the Orient, a hundred thousand dead shellfish were the symbol of great wealth. In the pastoral stage cattle, sheep, oxen, and other domesticated animals were supposed to have been used for money. In the agricultural stage olive oil, cocoa beans, eggs, fowl, and wheat and other grains were, according to this explanation, widely used. In Inner Mongolia today tea pressed into the shape of flat bricks is used as money. These bricks are so constructed that they can easily be broken into small pieces for change. Metals — iron, tin, copper, and at last silver and gold — finally began to be used for money in many parts of the world.

All these commodities have been used as money in times past, but the order of development, it is now agreed, was not nearly so logical. No one knows what was first used as money, but it is believed today that men did not introduce money *primarily* because of the inconvenience of barter. The rational explanation is now regarded as inaccurate, just as many historians and anthropologists now reject the theory that mankind has arrived at its present economic status through the various definite stages previously described.

metals are employed as intermediaries — the latter being articles of barter also, and possessing the same value as the things for which they are exchanged. *The whole science of money hinges on this fact.*"

This statement of Mr. White's has been widely commented upon, both with approval and disapproval. The opinion of the authors of this revision is that it must be modified in view of the manner in which commodities are now bought and sold. Mr. White, it will be remembered, maintained that real money must always be a commodity, and hence one commodity was exchanged for another.

In some early societies money was used as a gift before it became a medium of exchange. The payment of indemnities by defeated nations, the hiring of soldiers, offerings to the gods in ancient countries, the collection of taxes, and various other similar circumstances help to explain the origin of money.

One curious development must be mentioned. About two thousand years ago in parts of the Orient there arose the practice of using miniature models of various articles as money, instead of the articles themselves. For example, in China, model or miniature knives made of metal passed current in trade. In a number of museums in the United States will be found examples of this Chinese knife money. Replicas of bundles of cloth were also used. Miniature hoes were at one time generally accepted; the same was true of miniature fishhooks in India and Ceylon. In Africa axes were used as money, then miniature axes; in the New Hebrides mats, then miniature mats.

Just when the metals came into common use is uncertain. There is evidence that gold bullion was used as money in China nearly four thousand years ago. Sparta had its iron money, and ancient Rome its uncoined copper; but in Russia only two hundred years ago leather money was still common. Most of the early metallic money passed only by weight. In fact, many modern monetary units derive their names from a weight, the pound sterling, for example.

In the early Mediterranean countries values were expresssed in terms of oxen, and when metals began to be used their values too were expressed in terms of oxen. Metallic money frequently appeared in the form of bars, rings, or uncoined lumps which were stamped with the weight contained and some inscription of the ruler. In the Mediterranean countries coins appeared first, it is believed, in Lydia about 700 B.C. From there they spread gradually to eastern Europe.

The choice of metals for monetary purposes was, therefore, comparatively recent in the history of the human race. The metals selected were generally those which were prized for other purposes. Gold and silver, because of their attractiveness, relative scarcity, and other qualities, gradually supplanted the other

metals. They were highly desired, contained a large value in a small bulk, and were therefore easily carried or transported. Much of the monetary history of recent times centers around the important part played by gold and silver in monetary systems.

Money in the American Colonies. So many different things have been used as money in historical times that it is difficult to say what has not been used as money at some time or place. Our own history furnishes an abundance of curious examples, the most instructive being the tobacco currency of the colonial period. It may be said that Virginia grew her own money for nearly two centuries, and Maryland for a century and a half.

Tobacco Money in Virginia. The first General Assembly of Virginia met at Jamestown, July 31, 1619, and the first law passed was one fixing the price of tobacco "at three shillings the beste, and the second sorte at 18d. the pounde." Tobacco was already the local currency. In 1642 an act was passed forbidding the making of contracts payable in money, thus virtually making tobacco the sole currency. The act of 1642 was repealed in 1656, but nearly all the trading in the province continued to be done with tobacco as the medium of exchange.

In 1628 the price of tobacco in silver had been 3s. 6d. per pound in Virginia. The cultivation increased so rapidly that in 1631 the price had fallen to 6d. In order to raise the price, steps were taken to restrict the amount grown and to improve the quality. The right to cultivate tobacco was restricted to 1500 plants per poll. Carpenters and other mechanics were not allowed to plant tobacco "or do any other work in the ground." These measures were ineffective. The price continued to fall. In 1639 it was only 3d. It was now enacted that half of the good and all of the bad should be destroyed, and that thereafter all creditors should accept 40 pounds for 100; that the crop of 1640 should not be sold for less than 12d., nor that of 1641 for less than 2s. per pound, under penalty of forfeiture of the whole crop. This law was ineffectual, as the previous ones had been, but it caused much injustice between debtors and creditors by impairing the obligation of existing contracts. In 1645 tobacco was worth only 1½d. and in 1665 only 1d. per pound.

These events teach us that a commodity which is liable to great and sudden changes of supply is not a desirable one to be used as money.

In the year 1666 a treaty was negotiated and ratified between the colonies of Maryland, Virginia, and Carolina, to stop planting tobacco for one year in order to raise the price. This temporary suspension of planting made necessary some other mode of paying debts. It was accordingly enacted that both public dues and private debts falling due "in the vacant year from planting" might be paid in country produce at specified rates.

Tobacco Riots in 1683. In 1683 an extraordinary series of occurrences grew out of the low price of tobacco. Many people signed petitions for a cessation of planting for one year for the purpose of increasing the price. As the request was not granted, they banded themselves together and went through the country destroying tobacco plants wherever found. The evil reached such proportions that in April, 1684, the Assembly passed a law declaring that these malefactors had passed beyond the bounds of riot, and that their aim was the subversion of the government. It was enacted that if eight or more persons should go about destroying tobacco plants, they should be adjudged traitors and suffer death.

Tobacco Paper Currency. In 1727 tobacco notes were legalized. These were in the nature of certificates of deposit in government warehouses issued by official inspectors. They were declared by law current and payable for all tobacco debts within the warehouse district where they were issued. The tobacco notes were orders payable to bearer for the delivery of this money. They were redeemable in tobacco of a particular grade, but not in any specified lots. Counterfeiting the notes was made a felony. In 1734 another variety of currency, called crop notes, was introduced. These were issued for particular casks of tobacco, each cask being branded and the marks specified on the notes.

Early Massachusetts Currency. The circulating medium of the New England colonies was quite as fantastic as that of Virginia.

The first settlers of New England found wampumpeag, sometimes called wampum and sometimes peag, in use among the aborigines as an article of adornment and a medium of exchange.

It consisted of beads made from certain shells found in sea water. The beads were polished and strung together in belts or sashes. They were of two colors, black and white, the black being double the value of the white. The early settlers of New England, finding that the fur trade with the Indians could be carried on with wampum, easily fell into the habit of using it as money. It was practically redeemable in beaver skins, which were in constant demand in Europe. The unit of wampum money was the fathom, consisting of 360 white beads worth 60d. the fathom. In 1648 Connecticut decreed that wampum should be "strung suitably and not small and great vncomely and disorderly mixt as formerly it hath been." Four white beads passed as the equivalent of a penny in Connecticut, although six were usually required in Massachusetts and sometimes eight. In the latter colony wampum was at first made legally receivable for debts to the amount of 12d. only. In 1641 the limit was raised to £10, but only for two years. It was then reduced to 40s. It was not receivable for taxes in Massachusetts. The use of wampum money extended southward as far as Virginia.

The decline of the beaver trade brought wampum money into disrepute. When it ceased to be exchangeable in large sums for an article of international trade, the basis of its value was gone. Moreover, it was extensively counterfeited, and the white beads were turned into the more valuable black ones by dyeing. Nevertheless it lingered in the currency of the colonies as small change till the early years of the eighteenth century. While it was in use it fluctuated greatly in value.

Merchantable beaver was legally receivable for debts at 10s. per pound. In 1631 the General Court of Massachusetts ordered that corn should pass for payment of all debts at the price it was usually sold for, unless money or beaver skins were expressly stipulated. In other words, a debt payable in pounds, shillings, and pence might be paid at the debtor's option in any one of three ways: in corn at the market price, in beaver at 10s. per pound, or in the metallic money of England. For more than half a century this order continued in force and operation, other things being added to the list from time to time.

In 1635 musket balls were made receivable to the extent of 12d. in one payment. In 1640 Indian corn was made current at 4s. per bushel, wheat at 6s., rye and barley at 5s., and peas at 6s. Dried fish was added to the list. Taxes might be paid in these articles and also in cattle, the latter to be appraised.

The need of metallic currency was severely felt. In 1654 it was ordered that no coin should be exported, except 20s. per person for traveling expenses, on penalty of forfeiture of the offender's whole estate.

The cost of carrying the country produce taken for taxes amounted to 10 per cent of the collections. A constable once collected 130 bushels of peas as taxes in Springfield. He found that he could transport this portion of the public revenue most cheaply by boat. Launching it on the Connecticut River, he shipped so much water on board at the falls that the peas were all spoiled. Thus we learn that money ought to be easy of carriage and not liable to injury by exposure to the elements.

In 1670 it was ordered for the first time that contracts made in silver should be paid in silver. In 1675, during King Philip's War, the need of metallic money for public use was so great that a deduction of 50 per cent was offered on all taxes so paid.

Early New York Money. The first local currency of New Netherland was wampum, but it was subordinate to the silver coinage of the mother country; that is, it was reckoned in terms of that coinage as fixed by the Dutch West India Company from time to time. It was first fixed at six white beads for a stiver. Wampum was not made in the province, but was imported from the east end of Long Island, the principal seat of production. It is mentioned in a letter from the patroons of New Netherland to the States-General in June, 1634, as "being in a manner the currency of the country with which the produce of the country is paid for," the produce of the country being furs.

Beaver soon became current here, as in New England, and for the same reason, its currency value being fixed by the company at 8 florins per skin. As 6 wampum beads were equal to 1 stiver and 20 stivers to 1 florin, and 8 florins to 1 skin, the ratio of wampum to beaver was 960 to 1. The market ratio did not coin-

cide with the legal ratio very long. Nor was the legal ratio of either wampum or beaver to silver maintained; for, in 1656, Director Stuyvesant wrote to the company urging that beaver be rated at 6 florins instead of 8, and wampum at 8 for a stiver instead of 6, as these rates were nearer the commercial values.

Rice Currency. In 1719 the Assembly of South Carolina made rice receivable for taxes, "to be delivered in good barrels upon the bay in Charlestown." In the following year a tax of 1,200,000 pounds of rice was levied, and commissioners were appointed to issue rice orders to public creditors, in anticipation of collection, at the rate of 30s. per 100 pounds, in the following form:

> This order entitles the bearer to one hundred weight of well-cleaned merchantable rice to be paid to the commissioners that receive the tax on the second Tuesday in March, 1723.

Rice orders were made receivable for all purposes, and counterfeiting was made felony without benefit of clergy.

In eastern Tennessee and Kentucky, early in the nineteenth century, deer skins and raccoon skins were receivable for taxes and served the purposes of currency.

The Spanish Dollar. Fraudulent abrasion and clipping of coins were a great pest in the seventeenth century. The silver coins circulating in the colonies were chiefly Spanish dollars — sometimes called pieces of eight, being of the value of eight reals — and their fractions. They were brought in by trade with the West Indies. Some were coined in Spain and others in the Spanish-American colonies. At their best estate they were not uniform in either weight or fineness, and they had been much tampered with by sweating and clipping. The heavier ones were constantly culled out to make remittances abroad, since they were received in England by weight only. Those which remained in the colonies grew lighter and lighter, until, in 1652, the pieces in circulation had lost about one fourth of their original weight.

Gresham's Law. When two kinds of money, differing in value, are equally current, the worse drives the better out of circulation.

The reason is that brokers, bullion dealers, jewelers, and others who habitually make a profit from the use and handling of the precious metals select the full-weight coins for melting or exportation and pass the light ones into circulation. The same rule applies in a case where money of two metals, like silver and gold, is coined without limit at the mint, and both kinds are equally legal tender. If there is a slight difference in the metallic value of the different kinds of dollars, the more valuable ones will be exported by bullion dealers and the less valuable retained for domestic use. This is called Gresham's law from Sir Thomas Gresham, who explained it to Queen Elizabeth about the year 1559. The principles of this law were known to students of money much earlier than the time of Queen Elizabeth, however.

The Pine-Tree Shilling. In order to correct the defects of a constantly depreciating currency and to fix a standard of money, the colony of Massachusetts, in 1652, decided to establish a mint for the coinage of shillings, sixpenny, and threepenny pieces. Conforming to the depreciation that already existed, she gave to the shilling the weight of 72 grains, which was $22\frac{1}{2}$ per cent less than that of the English shilling. The English standard of fineness was preserved. The colony did not itself operate the mint, but made a contract with one John Hull to do the work, requiring him to receive and coin all the silver offered to him and authorizing him to retain as his pay one shilling out of every twenty which he produced. The mint was closed by order of the home government in 1686.

These early Massachusetts coins had two different devices. The first issues of the mint were plain circular disks bearing on one face the letters "N E" (New England) and on the other face "XII" for the shillings, "VI" for the sixpences, and "III" for the threepenny pieces. These pieces, by reason of their plainness, offered every facility to coin-clippers, by whom they were speedily reduced in size and weight. In order to prevent such fraud a change of design was adopted by which the figure of a tree was stamped on one face and a row of dots and lettering was placed around the margin of the other. This became known as the pine-tree coinage.

The Proclamation of Anne. The disorders of the currency due to the clipping and sweating of coin led to different valuations of the Spanish pieces of eight at different places. On June 18, 1704, a proclamation was issued by Queen Anne on this subject. It first stated the actual value of foreign coin circulating in America, in terms of sterling money, according to the assays of the mint. "Sevil pieces-of-eight old plate,[1] 17 pennyweight 12 grains," were equal to 4s. 6d. The proclamation then says that "from and after the first day of January next no Sevil, pillar, or Mexico pieces-of-eight shall be accounted, received, taken, or paid within any of our colonies or plantations at above the rate of six shillings per piece, current money, for the discharge of any contracts or bargains to be made after the said first day of January next." Six shillings was considered by the home government a fair average of the various colonial valuations of the Spanish dollar. This valuation came to be known everywhere by the term "proclamation money" or "proc. money." One hundred pounds sterling was the equivalent of £133⅓ proclamation money.

The proclamation was generally disregarded, because it interfered with the habits of the people. Seeing that the proclamation was not regarded, Parliament, in 1707, embodied it in a law and decreed a penalty of six months' imprisonment and a fine of £10 for each violation of it. This act was disregarded as completely as the previous proclamation had been. Each colony continued to keep its accounts in its customary pounds, shillings, and pence, which were different from those of England and which differed among themselves. Thus, in New York, the Spanish dollar was rated at 8s. and in Pennsylvania at 7s. 6d.

Money of Account. The phrase "money of account" means the money in which people keep their accounts and in which they think. The money of account of all the American colonies was pounds, shillings, and pence, but there were no such things in circulation except a limited amount of the pine-tree coinage. The money in actual use was the Spanish dollar and its fractions, more or less clipped and abraded. The division of the dollar into

[1] The word "plate" (Spanish *plata*, "silver") is here used to signify Spanish silver money, not bullion. Old plate meant old coinage.

one hundred parts was not made till 1792. By a law of that year Congress enacted that the money of account of the United States should be dollars, dimes, etc., but it did not become so in practice until after the Civil War. Before that era the price of merchandise was quoted in dollars, shillings, and sixpences.

Early California Devices. When California was first invaded by gold-seekers there were a few Mexican coins in circulation there, but not nearly sufficient to answer the needs of the growing community. The immigrants brought more or less metallic money with them. The smaller coins were those of many different countries, chiefly of Spain. For want of sufficient coins the first trading was done largely with gold dust, sometimes by weighing it in scales, sometimes by guesswork. A pinch of gold dust about as large as a pinch of snuff had a current value and was a common measure in places where there were no means of weighing. At a public meeting in San Francisco, September 9, 1848, it was resolved by unanimous vote that $16 per ounce was a fair price for placer gold. This rate was at once adopted in all business transactions. By and by private coiners of gold came into the field. The legislature was at first alarmed by the appearance of these unaccustomed pieces, and passed a law to prohibit their circulation and to close the shops where they were made. It was soon found, however, that they were a great convenience. Then the law was repealed. Several establishments immediately went to work assaying and coining gold. One of these was at Salt Lake City, whose productions were known as Mormon coins. Only one of these establishments, that of Moffat & Co., of San Francisco, conformed exactly to the government standard of weight and fineness. All the others, however, including the Mormon ones, circulated freely, and were received on deposit by the banking houses until the government set up an assay office and began to stamp octagonal pieces of $50, called slugs, and afterward pieces of $20. This was done in 1851; the San Francisco mint was not ready till 1854. The Moffat coins continued to circulate after the mint had gone into operation, since everybody had confidence in their goodness. It is estimated that $50,000,000 of private coins were struck.

We have now seen that after centuries of experience with various commodities men finally came to the conclusion that gold or silver contained the most desirable qualities for monetary use. The history of the gold and the silver standard, and of the double standard (bimetallism) will be treated in greater detail in portions of the rest of this volume. When the colonists came to this country, the silver standard and bimetallism were the common monetary standards in the old countries. The gold standard had not yet been adopted.[1]

Colonial Paper Money. No reference has yet been made to paper money in early American history. In Chapter III we discuss the prevalence and extensive use of paper money in the American colonies, and the unfortunate consequences thereof. The first of these issues occurred in 1690 in Massachusetts, when

[1] Mr. White's views on the importance of metallic money are reprinted herewith: "Money is a product of evolution, a result of the ages. The better has gradually crowded the worse out of existence. Our own history forms no exception to this rule, for although our colonial ancestors for a time went back to a system almost as rude as that of the Homeric period, they eventually abandoned it and resumed metallic money, which always served as a mental standard even when it was not a legal one. It is a fact of prime importance — we meet it everywhere in colonial history — that in all trading, whether the medium of exchange was wampum, beaver, tobacco, or what not, there was a mental reference to metallic money, most commonly silver. In other words, silver, although a latent standard, was the real standard at all times and places.

"The question may be asked, Why did our ancestors endure the burden of an inferior kind of money so long, when they knew that it was inferior? The answer is that a metallic money is an expensive tool acquired by a community at a considerable cost and sacrifice. The early settlers had very little capital, and preferred to put as little of it as possible into the shape of money, and as much as possible into food, clothing, and implements. They could not have *both* a metallic currency and an ax. They chose the ax as being more important to them, and got along without the coin. Hence the prevalence of paper money. Moreover, the one form of ready capital which was acceptable to all, and therefore could be used as a medium of exchange, was a ready article of export — for example, in New York, beaver skins; in Virginia, tobacco; in South Carolina, rice; etc. These were the natural money in those sections. Silver could not be kept in circulation, as it was inevitably exported to be exchanged for more valuable kinds of capital (ax, food, clothing). The faster it was coined or imported from the West Indies, the faster it left to buy goods abroad."

that colony paid soldiers returning from an expedition to Canada in "bills of credit." The practice spread rapidly to other colonies. This money was made legal tender for the payment of public debts, taxes, and private debts by the various colonial assemblies.

These episodes were only the beginning of a number of tragic experiences with both government paper money and bank notes in the United States. As we unfold the monetary and banking history of this country, we shall see that the issuance of unsecured, or inconvertible, paper money by the government has been repeatedly advocated from time to time by certain groups as a remedy for the troubles besetting the nation at those times. Such paper money was proposed and used two hundred and fifty years ago; it has been vigorously advocated again since 1932. Whether the United States could avoid a period of bad inflation from the issue of inconvertible paper was one of the most serious economic problems confronting the nation in 1934–1935. Canada also has been faced with the same problem, the inflationary groups becoming highly vocal in the western portion of the Dominion.

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CHAPTER II

THE FUNCTIONS AND CHARACTERISTICS OF MONEY

Functions of Money. Money performs a number of most important functions in modern economic life, serving as

1. A common medium of exchange.
2. A standard or measure of value.
3. A standard of deferred (debt) payments.
4. A store of value.
5. Bank reserves.

To serve as a common medium of exchange is money's primary function. All the others are secondary and are, in fact, derived from the first. Some economists argue that money served as a standard or measure of value before it became a common medium of exchange. They point to ancient practices in which it seems that values were expressed in certain commodities before these commodities actually became money. But it would appear that no commodity could really become a *common* measure of value until it was widely accepted in exchange. The fact that it was generally received in exchange led to its use as a measure or common denominator of value.

Debts are expressed in terms of money; money serves as the standard by which deferred payments, or debts, can be determined or calculated. Money performs this function because it is a common medium of exchange. Both creditors and debtors wish an obligation to be in definite, certain terms, since they wish to know exactly how much is to be received and how much is to be paid. Contracts could be and have been so drawn that payment is made in specific commodities or services. But, generally speaking, the thing which serves as the medium of exchange is the thing which people wish to serve as the standard of deferred payments.

Money serves as a store, or storehouse, of value because it is a common medium of exchange. Hoarding is an example of the use of money as a store of value. In ordinary times, except in countries like India and China, where gold and silver are hoarded in large amounts, this function is comparatively unimportant. In ancient times money was a widely used store of value because most transactions were accomplished by the payment of bullion or coins, and there existed large stocks of precious metals in the treasuries of the various rulers. Pocket money is temporarily serving as a store of value. In times of crisis or financial panic, such as the year 1932 and early in 1933, when people were drawing money from the banks in large amounts, this function becomes of great significance. It was the sudden desire for money to hoard, because of distrust of the banks, that was largely responsible for the "bank holiday" of March, 1933.

Sometimes a fifth function is added because of the structure of the modern banking system. This function of money is to serve as a bank reserve. With the growth of huge banking systems, especially of central banks which act as the guardians of the ultimate reserves behind bank notes and bank deposits, this may rightly be classed as important.

It should be noted at this point that money on deposit in a bank is not, strictly speaking, hoarded. As soon as the money is deposited, title to it passes to the bank, and a debtor-creditor relationship is established between the bank and the depositor. What the depositor has is a legal claim to payment of so much money from the bank, which takes the money so received and invests it.

Classification of Money. In every modern monetary system there exists a monetary unit, such as the dollar, the pound, the mark, the franc, the lira, etc. When countries are on the gold standard, the actual unit is a weight of gold, a dollar's worth of gold, for example. What a dollar is worth in gold is determined by fixing a definite price for an ounce of gold. It can then easily be determined how many grains of gold constitute a dollar. From 1837 to 1933 the United States government fixed the price of gold at $20.67 a troy ounce. A dollar was, consequently,

23.22 grains of pure gold. In January, 1934, the price was raised to $35 an ounce; the dollar thereupon became 13.71 grains of pure gold.

Money may be classified in the following manner:

1. Standard money.
   a. Commodity standard money.
   b. Fiduciary (credit) standard money.
2. Nonstandard money.
   a. Fiduciary coins and token money.
   b. Fiduciary paper money.
      (1) Representative money.
      (2) Government paper money.
      (3) Bank notes.

Standard Money. The kind of money which independently embodies the unit and to which the values of other kinds of money are assimilated or adjusted is called the standard money. All other kinds of money are nonstandard and their value is determined in part by the fact that they are convertible into standard money on demand. Standard money may be either commodity money or fiduciary money.

Commodity Standard Money. This is money whose value as a commodity is practically the same as its value as money. The twenty-dollar gold piece is an example, containing twenty dollars' worth of gold. When the United States was on bimetallism from 1792 to 1873 both the gold and silver dollars contained about a dollar's worth of metal. If we were on the silver standard, a silver dollar would contain approximately a dollar's worth of silver. Some authorities describe standard commodity money as *full-bodied* money, a truly descriptive term.

Fiduciary Standard Money. Fiduciary money has a money value which is greater than the value of the commodity or material of which it is made, by more than enough reasonably to cover the cost of making it. It is frequently contended that a standard money can never be fiduciary, that standard money must always be full-bodied. There seems, however, to be no other way of describing certain monetary standards used in the past. When India closed her mints to the free coinage of silver

in 1893, for the next five years she was on a fiduciary silver-coin standard. The Philippines were on a fiduciary silver-peso standard from 1873 to 1898. The Philippine peso was worth more as money than it was worth as silver, but it was the standard. In Mexico and in Central American and South American countries the same situation was true at various times in the past.

The standard need not be a fiduciary silver coin; it may be a fiduciary paper unit. Examples of this occurred in England during the Napoleonic Wars, in the United States during the Civil War and until 1879 (the greenback period), in most of the major nations during the World War, and in many countries from 1931 on for a number of years.

This fiduciary (or credit) standard money may have prospective convertibility into standard commodity money. During the greenback period in the United States this prospect existed; frequent examples of a similar character can be drawn from recent European experience. But there have been cases where the standard has been a fiduciary one without prospective convertibility. Professor Edwin W. Kemmerer of Princeton states that this was true in Puerto Rico in 1898, in the Philippines prior to the American occupation, and in India from 1893 to 1898.

Nonstandard Money. All other money except the standard type comes under this heading.

Fiduciary Coins and Token Money. These are nonstandard coins with a metallic content smaller in value than the money value. Most coins of this type are called *subsidiary* money. Frequently, the small ones are described as *token* money. All American silver coins come under this classification. The value of the silver in them depends upon the price of silver in the market. For a few months late in 1919 and early in 1920 the price of silver rose so high that the silver in the silver dollar was worth more than a dollar. This was exceptional, and, with the fall in the price of silver in the decade of the nineteen-twenties, by 1932 there was less than twenty cents' worth of silver in the silver dollar. Since the Silver Purchase Act of 1934 the price of silver has again risen, to nearly 80 cents an ounce. In practically all modern nations the silver coins are fiduciary.

Fiduciary Paper Money. There are different kinds of fiduciary paper money:

1. *Representative money.* There may be some doubt as to whether this is the proper place to classify such money. Examples of representative money in the United States are our gold and silver certificates. These certificates are really warehouse receipts for gold and silver money deposited in the United States Treasury at Washington; hence the term "representative," because they represent an actual deposit of money in the Treasury. The silver certificates, which constitute practically all our one-dollar bills today, state that for every bill there has been deposited in the Treasury an equivalent amount of silver dollars which will be paid to the bearer on demand. It should be noted that this is an obligation to pay not a dollar's worth of silver but a silver dollar. In the case of gold certificates no such distinction is necessary. The *new* silver certificates issued under the Silver Purchase Act of 1934 do, however, promise to pay a dollar in silver.

The inscription on gold certificates is similar, but gold certificates were called in from circulation shortly after the bank holiday in March, 1933, although some are still hoarded. Gold will not now be paid out for them, since all gold has been withdrawn from circulation. The Gold Reserve Act of 1934 created a new kind of gold certificates to be held only by Federal reserve banks in place of gold, which was turned in to the United States Treasury.

2. *Government paper money.* Governments have sometimes resorted to the issue of paper money to meet their debts and other obligations. This money takes the form of a promise to pay; it is really a promissory note issued by the government for use as money. In certain instances these notes have carried interest; in most cases, however, they have been non-interest-bearing. Frequently they are made full legal tender, but occasionally their legal-tender powers have been limited. Many such issues have not been redeemable in specie, but others have been so redeemable. Sometimes this type of money, when not redeemable, is called *fiat money.* Since separate chapters in this volume treat various types of government issues rather fully, — Continental currency and greenbacks, for example, — we will not discuss them further here.

3. *Bank notes.* A bank note is a bank's promise to pay money, but is usually regarded as money. In the early history of this country, when banks were chartered by the various states, with few restrictions, bank notes were issued in large quantities and furnished a considerable part of

the media of exchange. Most of these early issues were secured by little or no specie and frequently depreciated or passed only at a discount. They were widely counterfeited, and if the bank failed they were worthless.

Before 1865, when Congress passed a law taxing notes issued by state banks 10 per cent, many attempts had been made to render bank notes safe. When the national banking system was created in 1863, during the Civil War, national banks were permitted to issue notes secured by government bonds and a 5 per cent gold-redemption fund. At last bank notes had been made safe. In addition to national-bank notes we now have two other kinds of bank notes in the United States: Federal reserve notes and Federal reserve bank notes. Banks chartered by the various states still have the right to issue notes, but the 10 per cent Federal tax makes it unprofitable to do so. In most foreign countries the central banks have been granted a monopoly of bank-note issue. A specified amount of gold is now commonly required in many countries to be held as a reserve against bank notes for safety and to prevent overexpansion.

Characteristics of Good Money. The essential qualities, or characteristics, of a desirable type of money are as follows:

1. *General acceptability.* Unless people are willing to accept a specified money in exchange for goods and services, it cannot be regarded as desirable. Certain authorities regard this as the most important attribute of money.

2. *Stability of value.* A rise or fall in the average prices of commodities means that the value of money is changing. If prices rise, the value of money (its purchasing power over commodities) is falling; if prices fall, the opposite is true. Prices have seldom been stable over a long period of time. When they rise rapidly, as they did in the United States during the War of 1812, the Civil War, and the World War, the cost of living increases, which causes great suffering among those whose incomes do not increase correspondingly. Rapidly changing prices create havoc in the relationship between debtors and creditors. Rapidly falling prices destroy profit-making opportunities, result in unemployment, and make it difficult for debtors to meet their obligations.

Examples of such troubles are to be found in the rapid fall of prices following each of the wars mentioned above. Another

catastrophic decline in prices began in 1929. The results are still obvious to all; if money is to be good money, its value or purchasing power should not be subject to sudden fluctuations. Consequently many proposals for stabilizing the purchasing power of money have been brought forward during the past twenty years. Even gold is not stable in value; its purchasing power over commodities has varied greatly from time to time. During certain periods, surprising though it may seem, the purchasing power of silver has been more constant than gold. How to prevent or control these sudden fluctuations in the value of money is one of the greatest economic problems of modern times. We are still far from solving it, but many economists are searching for a solution.

3. *Portability.* Good money must be easily transported from place to place. This has been one of the great difficulties with many types of commodities used as money in the past. Money which is convenient to use should have a large value in a small bulk. This is one of the reasons why, in many parts of the world, gold and silver were finally selected as the best type of money. The development of various forms of paper money has simplified the situation, for even gold and silver payments of large sums are difficult and costly to transport.

4. *Uniformity.* One of the great problems arising from the use of tobacco money in Virginia and Maryland was that there were different grades of tobacco varying greatly in value. Lack of homogeneity, or uniformity, is a serious drawback for any medium of exchange. No substance can be satisfactory for money unless equal parts of it are worth the same amount.

5. *Durability.* Many things which have been used as money have been of a perishable nature; for example, cubes of salt in Egypt, cubes of tea in the Orient, and tobacco in Virginia. This is one of the reasons why the metals became popular.

6. *Divisibility.* Any satisfactory means of exchange must be capable of being divided into units small enough to make even the smallest purchase possible. Skins and furs cannot be divided, but gold and silver can be.

7. *Cognizability.* Different denominations of money must be quickly and easily recognizable as such.

8. *Sufficiency of supply.* There must be enough money to meet the requirements of trade. Sometimes this quality is described as elasticity, which means that money should expand and contract with the needs of business.

Defects of Colonial Money. Objections to tobacco money in Virginia and to the variegated colonial currency of New England are obvious. They were inconvenient in every way. In the first place they were not easily portable. It cost £3 6s. in 1662 for cartage of the proceeds of the tax levy of the town of Ipswich, amounting to £70 6s. 8d. In Virginia there was a difference in the value of tobacco notes according to the location of the warehouse where the tobacco was situated. This amounted in some cases to 10s. per hundredweight.

Another objection is found in the fluctuations in value of these currencies. The range of tobacco prices in Virginia from 1619 to 1775 was from 3s. 6d. down to 1d. per pound. We have seen what strenuous efforts were made by the tobacco-planting colonies to restrict the production and what distress and disorder were caused by their inability to do so.

Another inconvenience attending these media of exchange was the difference in value between different lots of the same article at the same place. Tobacco, even when up to standard, was of four different kinds, described in the laws as sweet-scented, oronoco, leaf, and stemmed. Then there were differences in the inspection, some inspectors being more skillful and more strict than others, whereby their receipts or notes came to have a higher price than others. There were differences also arising from different seasons and different cultivators. A large part of the legislation of both Virginia and Maryland was directed to the suppression of "trash." No substance can be considered suitable for the purposes of money if different parcels of it are of different degrees of goodness.

Want of durability was another objection to all these things. There was so much shrinkage and deterioration in tobacco that the notes issued against it could not be safely kept more than one year.

Some of the articles used as money in the colonial period

could be divided and subdivided without losing any part of their value, while others could not. Grain and tobacco could be so divided. Beaver skins could not. For the purposes of exactitude divisibility is necessary. No article which does not possess this quality can be considered a good medium of exchange.

It is not absolutely necessary that the substance used as money should be coined. Gold and silver were used as money before they were coined, and passed by weight. All that coining does is to save the trouble of frequent weighing and assaying. Accordingly it is desirable that the substance of which money is composed should be one which can receive and retain a stamp. None of the substances which the early American colonies used in lieu of the precious metals answered this requirement. The putting of wampum shells together in parcels equal to one penny and higher denominations, easily recognized, was something akin to coinage. So also was the marking of a hogshead of tobacco by an inspector. When so marked it would pass without reweighing or re-examination. The stamp had here become the sign of value, but the tobacco itself could not be stamped because the substance was not suitable for receiving and retaining an impression.[1]

[1] With regard to these requisites Mr. White wrote: "Long experience has taught mankind that these qualities are best embodied in the metal gold.

"It must not be assumed that gold is absolutely stable in value. When we speak of the value of one thing which measures all values, we mean its purchasing power in terms of those commodities whose supply is unlimited or not controlled by monopoly. The value of gold thus measured is subject to variations, but it is impossible to measure them with accuracy, even when we compare prices during long intervals of time. We are concerned at present only with the comparative steadiness of value of different things, as, for example, gold and tobacco. If gold is subject to fewer changes of purchasing power than tobacco, it is better fitted to serve the purposes of money and will sooner or later supplant it in that function. If it is subject to fewer changes than any other known substance, it will supersede all others. The fact that it is not wholly free from variation itself will not prevent it from becoming the sole and universal money of civilized mankind.

"The durability of gold is one of the most potent factors contributing to its stability of value. Gold does not deteriorate with age, and its loss by abrasion is slight. The production of each year is added to the accumulations of the past. Hence the mass in existence at any time is so great that its value is not perceptibly affected by any change in the output of a single year or short series of years. This mass may be likened to the ballast which gives

Coinage. Coinage is the process of identifying, by stamping, a piece of metal intended to be used as money. Coins are of two kinds:

1. Those made by the government for private persons, from metal deposited by them, without limit as to quantity, and full legal tender.

2. Subsidiary coins made by the government for itself, such coins being restricted in quantity, sold to private persons at more than cost, and being usually limited legal tender.

As regards coins of the first class the government's stamp is merely a certification of the weight and fineness of the metal composing them. The prime requisites of such a coinage are

1. That the coins shall contain exactly the amount of fine metal that the law prescribes.

2. That they shall be easily recognized.

3. That they shall not be easily counterfeited or altered.

4. That they shall not be easily abraded by ordinary use.

Subsidiary and Token Coins. The word "subsidiary" is usually applied to coins which constitute the small change of a country and which are legal tender only for limited amounts. In the United States the silver dollar must be classed as subsidiary also; for, although it is full legal tender, the government does not coin it for private individuals. It is subsidiary, or subordinate, to gold. It passes for much more than the value of the metal contained in it. Professor Taussig has fitly applied the term "large change" to the silver dollar. Coins made of copper or other base metal are called "token" coins. They are subsidiary coins for the smallest transactions.

Subsidiary coins, however much their metallic value may fall below their nominal value, may be kept at par either by restricting their quantity or by redeeming them on demand. If the quantity

steadiness to a ship. Gold thus becomes a good *standard of deferred payments.* The desideratum here is that the value of the future payment shall be as nearly as possible equal to that of a present payment, although absolute equality cannot be expected.

"The durability of gold makes it also a convenient *store of value.* Gold coins or ornaments that have been buried thousands of years are of no less value than gold fresh from the mine."

is restricted to the actual needs of the country for small change, they will be at par because they are among the necessities of life.

Why Made of Metal. If subsidiary silver coins circulate at a value which is largely imaginary, the question may be asked, Why not make them of some other metal or even of paper? There are no reasons except custom and convenience. A coin not heavier than a half-dollar is more convenient than a piece of paper; it is cleaner, and in the long run is probably cheaper, as it does not require frequent renewal. A cheaper coin might be made out of some other metal, but it is generally best to conform to the habits of the people. Since we have always been accustomed to a silver subsidiary coinage, no good reason is apparent why we should depart from it.

The shape of coins is usually circular, but some are square, others oblong, others cubical. Many ancient coins were dish-shaped; others were in the form of rings. The first coins struck by the government in California were octagonal. The copper coins of China, called cash, have square holes in the center by which they are strung on a wire and hung round the owner's neck. The objects to be aimed at in determining the shape of a coin are freedom from abrasion, exemption from alteration, and convenience in handling. Modern commerce tends to minimize the use of gold except to settle international balances. For this purpose fine gold bars are best, as they are subject to hardly any abrasion and are much more convenient to bankers than ordinary coins.

Coins have been made, at different times and places, of iron, lead, tin, brass, copper, nickel, platinum, silver, and gold. There were coins of electrum in the ancient world. This was a mixture of silver and gold found in a natural state in the Boz Dagh, a range of mountains in Asia Minor, and elsewhere. Specimens found in this range in modern times have yielded 73 per cent gold and 27 per cent silver. Electrum was also produced artificially, with a larger proportion of silver, in order to debase the currency.

Weight Coins. In early Rome small payments were made by tale (that is, by counting) and large ones by weight. The Latin word *pendo*, from which our words "compensation," "expendi-

ture," and "stipend" are derived, means "weigh." The shekel, the talent, the drachma, the pound, the penny, the peso, the livre, the franc, and the mark were originally the names of weights. They are instances of the transference of the name of a weight to a coin.

Seigniorage. Under a system of free coinage the government receives all the gold deposited at the mint by private individuals and converts it into coin or bars free of charge. All silver, nickel, and copper coins are made by the government from its own metal and are sold to the public. The profit which the government makes on such sales is called seigniorage. It is the difference between the cost of the bullion and the price received for the coins. The same term is applied to any charge which a government makes for coining a metal for private persons. Formerly the seigniorage on silver subsidiary coins was only 5 to 7 per cent. When the great decline in the price of silver took place, it became more than 100 per cent.

Deposits of Gold Bullion. Although the law contemplates the deposit of gold bullion at the mint or assay offices of the United States, practically the Treasury buys the bullion and pays for it. The practice of the assay office in paying for gold varies according to the kind of bullion in the deposit. A depositor of bars from known assayers or smelters, or of foreign coin of which the fineness can be readily approximated, is allowed at once 90 per cent of the value ascertained by weight and calculation of the fineness. The balance is paid after melting and assaying. When the deposit is small, or when bullion is tendered without well-known "earmarks," no advance payment is made, but the full payment is made after assaying. A certain portion is always converted into "fine bars" for commercial use, the remainder into mint bars ($\frac{9}{10}$ fine) suitable for coinage.

The successive steps in the making of coins are (1) assaying, (2) refining, (3) alloying, (4) coining. The bullion is first melted in a crucible. While in the molten state it is stirred until thoroughly mixed. It is then allowed to cool in the form of a brick. Small pieces are clipped from two corners of the brick most distant from each other and given to two different assayers to test

the fineness of the metal. If their tests do not agree within a certain fraction, the brick is returned to the melting pot and the process repeated. When the test is satisfactory and the amount of foreign substance is known, the whole of the impurity is removed by chemical means. Then the requisite amount of alloy is added, by remelting and mixing, to harden the mass. Thus to nine pounds of pure gold one pound of copper is added, so that the coins shall be nine-tenths fine.

Coining. The bullion is rolled into strips or ribbons a little wider than the coin to be struck. It is then "drawn" in a machine which reduces it to the thickness of the coin. The strips are then passed through another machine, which cuts out of them circular pieces, of the proper size, called blanks. Each blank is examined by an expert both by weighing and by sounding. If one is found too light, or if it does not "ring true," it is returned to the melting pot. If it is too heavy, the excess of metal is removed by filing.

The blanks are sent to a machine by which a slight rim is raised around the edge of the piece on both sides, so that its weight shall rest on the rim and not on the whole surface of the coin, in order to minimize abrasion. This process is called milling. The blanks are then put in a cylindrical case and sent to the coining machine. At each revolution of the machine one blank drops from the bottom of the cylinder, is seized, and conveyed to a sunken steel bed which contains a die that prints one surface of the coin. This bed has a serrated edge, or "collar." Directly above this sunken die is a steel stamp containing a die which prints the other surface of the coin. This stamp descends on the blank underneath with sufficient force to impress upon it the letters and figures of both surfaces of the coin. The pressure also squeezes the coin against the serrated collar, producing an indentation on the edge of the coin, the object of which is to prevent any clandestine removal of metal. If a piece were clipped from the edge, or if any portion were removed by filing, the fraud would be detected by the absence or irregularity of the indentations.

Private Coining Inadmissible. Experience has shown that the work of coining cannot be safely entrusted to private enterprise.

Between the years 1830 and 1860 there were numerous private manufactories of gold coins in the United States. They were situated in Georgia, North Carolina, California, Oregon, Utah, and Colorado. They turned out coins of varying goodness, all purporting, however, to be of the weight and fineness of the government's coins. They were not counterfeits. They did not imitate the designs on the coins of the United States. Many of them bore the names and places of business of the manufacturers. They were ingots purporting to be worth the number of dollars stamped on them. The value of these five-dollar pieces ranged from $4.36 to $5. The people who took them in trade could not distinguish between them and were therefore liable to be cheated. The government did not forbid the private coining of gold until June 8, 1864.

The Mint Price of Gold. Until the United States stopped the coinage of gold in 1934, the weight of a new gold eagle or double eagle was not permitted to vary more than half a grain from the standard weight fixed by law. That of the smaller gold coins was not permitted to vary more than a quarter of a grain. This allowable variation is called "the tolerance of the mint." The mint price of gold is the amount of money which a given weight of standard gold will produce. Before 1934 an ounce of gold nine-tenths fine would produce approximately $18.604. The fine ounce was worth $20.671. Since the gold dollar contained 23.22 grains, the twenty-dollar piece contained 464.4 grains. The troy ounce contained 480 grains, or 15.6 grains more than $20. In 1934 the price of an ounce of fine gold in the United States was raised to $35. Before 1934, coinage in the United States was free; that is, without expense to the depositor of gold bullion, but he was required to deposit also the alloy used in making the coins or to pay the cost of it.

The mint price of gold in England was £3 17s. 10½d. per ounce when that country was on the gold standard. This was the exact amount of money which an ounce of gold of the English standard, eleven-twelfths fine, would produce. In order that the holders of gold should not lose time waiting to have it coined, the law required the Bank of England to buy all the gold offered to it at

the price of £3 17s. 9d. per ounce. The difference between this price and the mint price (1½d.) was compensation to the bank for interest and for the labor of weighing, assaying, etc. England stopped the coinage of gold in 1925, and the United States in 1934. If England, which abandoned the gold standard in 1931, returns to it again, it will probably be at a new price for gold, since it is generally expected that England will devalue the pound.

Legal Tender. Anything which can be lawfully used in payment of a debt expressed in terms of money, and which creditors are required to accept, is called legal-tender currency or simply legal tender.

The principle of legal tender did not have its origin in an act of conscious legislation. The government begins, at a time when metal is circulating by weight, to certify the weight and fineness. It stamps small ingots in order to avoid the necessity of frequent weighing. This is coinage. Then people make contracts in terms of the government coinage, and the government enforces the contracts. Under Roman law the creditor was obliged to take in payment whatever the government was coining.

Origin of the Modern Law of Tender. The origin of legal tender in the modern world is connected with the re-establishment of the double standard of gold and silver in western Europe in the thirteenth century, in place of the single silver standard which previously prevailed. The double, or bimetallic, standard means that debts may be paid at the debtor's option with either one of two metals coined into money according to a ratio fixed by public authority — providing, for example, that one pound weight of gold shall be the equivalent in law of fifteen pounds of silver, the mints coining both metals without limit for private persons. The establishing of such a ratio was considered, from very early times, an attribute of sovereignty, and in monarchical countries a prerogative of the crown. Each proclamation of the ratio was virtually a legal-tender act. Debts had to be paid in one or the other of two metals. Consequently any man or body of men who could fix the ratio could decide how much of either should be paid.

From the analytical point of view a legal-tender act is nothing but an act of legal force, establishing a *new definition* of an old term — for instance, "dollar" — which has been customarily used in making contracts. It is essentially *ex post facto* legislation, binding the courts to a new interpretation of existing contracts, and incidentally inflicting various degrees of injury on those whose position is such that they cannot take advantage of circumstances to modify existing contracts — as for wages. Extreme cases may be imagined where such action might be needful in the interest of the general welfare, but with very few exceptions the passage of such an act is a subterfuge of a government for giving to itself or to some favored class immediate advantage over part of the community concerned.

Our First Coinage Act. Gold and silver were made full legal tender by the Congress of the United States at the ratio of 1 to 15 in 1792. The coinage act was based upon a report of Alexander Hamilton, Secretary of the Treasury. Hamilton examined the question of the standard with great care, and although the conclusion he reached was erroneous, it is interesting to observe how near he came to the truth. He thought that gold was better fitted to be the standard than silver because it was less liable to fluctuations of value and also because it was the standard *de facto.* He observed that the silver dollar of Spain in actual circulation had no standard value by weight and fineness, but circulated by tale, "very much as a mere money of convenience," whereas gold money had a fixed weight by the custom of merchants. This fixed weight was $24\frac{3}{4}$ grains of fine metal per dollar.[1] While this con-

[1] Hamilton here perceived the fact that a standard of value may exist, and have controlling force in mercantile circles, without any statute law and without any conscious action on the part of merchants themselves. The gold standard was in practical operation in his time, just as the silver standard was in operation in the colonies when tobacco and other forms of barter currency were used. The mind of the trader was fixed upon and governed by a standard different from the one that most commonly passed from hand to hand. In a book of merit and originality, entitled *The Evolution of Modern Money* (The Macmillan Company), Mr. W. W. Carlile has traced the existence of what we may call the "latent gold standard" in Europe for a long period before gold became the avowed standard.

sideration favored the adoption of the single gold standard, Hamilton says that "to annul the use of either of the metals as money [of full legal tender] is to abridge the quantity of circulating medium, and is liable to all the objections which arise from a comparison of the benefits of a full with the evils of a scanty circulation." He thought also that a country could draw to itself a greater quantity of the precious metals in international trade by means of the double than of the single standard. This conception was erroneous, but it was the common belief of the time.

Hamilton accordingly recommended the double standard at the ratio of 15 to 1. He had not failed to note that the Spanish silver dollars in circulation were of two different coinages, varying slightly in weight. He decided to take neither of them as the exact basis of our coinage, but to take instead the average of the dollars in actual circulation. By reason of abrasion they were somewhat lighter than the new coins then issuing from the Spanish mints. With these facts before him and having regard also to the market ratio of the two metals in Europe, he decided that the ratio of 15 to 1 would be not far from the true metallic equivalent. Taking the gold valuation of the dollar ($24\frac{3}{4}$ grains of pure metal) as the starting point, and multiplying by 15, the product, $371\frac{1}{4}$ grains of pure metal, was adopted for the silver dollar. The smaller coins were to be of proportionate weight and full legal tender. Congress followed these recommendations in the coinage act of 1792.

The mint began to coin silver in 1794 and gold in 1795. It was supposed that there would soon be a plentiful supply of coins of both metals; but, in order to provide for the interval while the mint was in course of erection and equipment, Congress passed a law making certain foreign coins, of both gold and silver, legal tender in the United States according to their weights respectively. This act was to remain in force three years after the starting of our mint and no longer, but by reason of the difficulty experienced in retaining our own coins in circulation the legal tender of foreign coins was kept in force by repeated re-enactments for more than sixty years. We did not have any

settled money of our own until after the passage of the act of 1853, providing for a subsidiary coinage.

Its Failure. The first silver dollars turned out by our mint were a little lighter than new Spanish dollars, but they passed in trade for the same value, both here and in the West Indies. Brokers began to collect and export them to the Spanish colonies, where they were exchanged for Spanish dollars, and the latter were brought back for recoinage at our mint. There was a profit of 1 per cent in the operation. As coinage was free, the government was working for bullion brokers without pay, and was not accomplishing the end aimed at. It was not supplying the American people with American money. Accordingly President Jefferson, in 1806, gave an order to the mint to stop the coinage of silver dollars altogether. This order remained in force for thirty years.

The legal ratio of 15 to 1, although pretty close to the market ratio at the time when the coinage act of 1792 was passed, did not long remain so. In 1797 the market ratio in Hamburg was 15.47. Gresham's law asserted itself. American gold coins began to grow scarce. They were melted or exported because they were worth more for that purpose than for debt-paying at home. As early as 1817 they had entirely disappeared from circulation, although the coinage of them continued at the usual rate.

Our Second Coinage Act. In 1834 the market ratio in Hamburg was 15.73, and gold bore a premium in brokers' offices in the United States of 4½ per cent over silver. Congress had had the subject of a change of the legal ratio under consideration since 1818. In 1834 it passed the Gold Bill, so called because it was intended to bring gold again into circulation. The ratio adopted was approximately 16 to 1. The amount of pure metal in the silver dollar remained unchanged. That of the gold dollar was reduced from 24.75 grains to 23.2 grains, but was increased in 1837 to 23.22 grains, at which weight it stood until early in 1934. This made the gold dollar 2 per cent less valuable than the silver one at that time. It was a debasement of the currency to that extent. There was strong opposition to the bill, on the ground that it would drive our silver coins out of circulation. Nevertheless

the majority in favor of the bill was very large in both branches of Congress, about four to one in the House and five to one in the Senate.

When the law of 1834 was passed, the premium on gold in the market was 4½ per cent. Anybody having $100 gold could buy $104.50 silver to pay his debts with. The government had never promised to hold the market ratio of the metals steady at 1 : 15. This had come in the course of time to be 1 : 15.625. Under the new law anybody having $100 silver could buy $102 gold to pay his debts with. In other words, the standard was debased 2 per cent. The law of 1834 ought to have provided that pre-existing contracts should be settled on the pre-existing basis.[1]

Silver Coins in the United States before 1853. There were no silver dollars in circulation, since the coinage of them had been discontinued by order of President Jefferson, as already stated. As our smaller silver coins were of full weight, they were melted and exported, and their place in the circulation was taken by light-weight foreign coins, principally Spanish and Mexican. Two halves or four quarters, if new and full weight, were worth about two cents more than a gold dollar. Consequently they were collected by brokers and exported. But two halves or four quarters that had lost two cents' worth of silver by abrasion would circulate, because there would be no motive to melt or export them. From 1834 to 1856 the silver money of this country consisted, to a large extent, of foreign coins, more or less worn, chiefly Spanish and Mexican, but with a considerable sprinkling of

[1] This statement of Mr. White's is of great interest in view of the recent debate over the abrogation of the "gold clause" in existing contracts and bonds by Congress in 1933. Apparently Mr. White would have thought such an abrogation indefensible. The gold clause required payment in gold of the present weight and fineness *or its equivalent.* Suits were brought to test the constitutionality of this measure, the plaintiffs claiming that, since the dollar was devalued, they were entitled to receive $169 for every $100 in such contracts. In February, 1935, by a five-to-four decision, the United States Supreme Court upheld the act of Congress abrogating the gold clause in "private" contracts, because under the Constitution Congress had full power so to act. It said the government had no power to do this with regard to its own bonds, but a plaintiff must prove actual damages in order to recover. In the case at issue no such damage was shown.

English, French, German, and Scandinavian pieces. Every merchant kept a coin-chart manual for handy reference to determine the value of these pieces as they were offered in trade.

Our Third Coinage Act. In the act of 1853 we adopted the principle of the British act of 1816. The debates in Congress on this bill show that it was the fixed intention of its promoters to establish the single gold standard, and that there was scarcely any opposition to the project. They failed to carry out this intention, however, since they left the silver dollar in the list of coins to be struck at the mint if anybody should choose to deposit silver bullion for that purpose. Our silver dollar was still a favorite coin in China, where it passed by weight. This was probably the reason why it was not treated like our other silver coins in the act of 1853. The silver dollar was worth four cents more than the gold dollar in the bullion market. Consequently none were to be found in circulation, although upwards of $5,600,000 were coined between 1853 and 1873. All these must have gone to China except a few which were retained in coin collections and as curiosities. The act of 1853, however, accomplished its main object. It gave the country an abundance of new and bright half-dollars, quarters, dimes, and half-dimes that would stay at home and serve the purpose of small change. The weight of the half-dollar was reduced about 7 per cent, that is, to 192 grains, and that of the smaller coins in the same proportion. Consequently there was no longer any motive to export them. In 1857 the legal-tender faculty was taken away from all foreign coins, both gold and silver, and they very rapidly passed out of circulation.

The act of 1853 is famous for having given us our first subsidiary coinage. Formerly all silver coins had been freely coined, but after that date the only silver coin freely coined was the silver dollar.

In 1873, when the next change took place in our coinage system, the country was under the regime of irredeemable paper. Neither gold nor silver was in circulation. Practically the silver dollar had never been in circulation. To Americans it was an unknown coin. From 1797 to 1806 it had been sent out of the country by

speculators to be exchanged for Spanish dollars. From 1806 to 1836 the mint had ceased to coin it altogether. After 1836 its circulation was rendered impossible by reason of its premium over gold in the bullion market.

Our Fourth Coinage Act. In 1869 the Treasury Department undertook a revision of the coinage laws. Mr. Boutwell, the Secretary, placed the work in the hands of Mr. John J. Knox, who prepared a bill which made the silver coins of the United States legal tender for only $5 in one payment. This included a silver dollar of 384 grains, but it was omitted by Congress, and the "trade dollar," of 420 grains, intended for circulation in China, was substituted. The bill provided that no silver coins except those enumerated should be struck at the mint and that none except trade dollars should be coined for private individuals. The silver dollar at that time was worth about two cents more than the gold dollar. The bill made the gold dollar the unit of value, and ended free coinage of the silver dollar.

Mr. Knox's report and the accompanying bill were sent by the department to chambers of commerce throughout the country and to persons interested in monetary science, in order to get their opinions and advice. They were sent to Congress in April, 1870. The bill passed the Senate on January 10, 1871, but was not reached by the House in time for passage by that Congress. It came up in the next Congress, and after debate in the House, in which the policy of discontinuing the silver dollar was specially discussed, it passed that body, May 27, 1872, by a vote of 110 to 13. It passed the Senate, January 17, without a division, and became a law on February 12, 1873. The United States thus adopted the single gold standard.

The Trade Dollar. Private persons were allowed to deposit silver bullion at the mint and have it coined into trade dollars for their own account. It was never intended that the trade dollar should circulate in the United States at all, but it was inadvertently placed in the list of coins which were legal tender for $5. As soon as the price of silver fell so that 420 grains were worth less than a dollar, it became profitable for owners of silver to have these dollars coined and put in circulation at home. Straightway

they began to fill the channels of retail trade. They became so great a nuisance that Congress, in 1876, took away their legal-tender quality altogether. This led to a dispute, with a charge of bad faith. So Congress, in 1878, discontinued the coinage of trade dollars entirely. This only aggravated the dispute. Speculators bought up the trade dollars with the expectation that the government would eventually redeem them at par. Nearly $2,000,000 of them were reimported from China for that purpose. Finally, in 1887, Congress passed a bill to redeem at par all that should be presented within six months, and President Cleveland allowed it to become a law without his signature. The number of trade dollars so redeemed was 7,689,036.

Our Fifth Coinage Act. In January, 1934, the United States Congress passed a historic measure which put an end to gold *coinage.* Under this act, known as the Gold Reserve Act of 1934, the weight of the gold dollar was reduced to 13.71 grains, which meant that the price of gold was raised to $35. In the future gold was no longer to be in circulation. After the bank holiday of 1933 all gold had been called in from circulation. The act of 1934 transferred all gold to the United States Treasury. The Federal reserve banks were given a new form of gold certificates for the gold held in their vaults. A stabilization fund of $2,000,000,000 for controlling the dollar in the foreign-exchange markets was established by the government out of the profits from raising the price of gold. The value of the gold stock in the country was raised instantaneously from over $4,000,000,000 to over $7,000,000,000.

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KINDS OF MONEY IN CIRCULATION

(Outside the Treasury and the Federal Reserve Banks)

November 30, 1934

Metallic Money	*Millions of Dollars*	
Standard silver dollars	32	
Subsidiary silver	291	
Minor coin	124	
Total	447	
Paper Money		
Gold certificates [1]	133	
Silver certificates	558	
Treasury notes of 1890	1	
United States notes	273	
Federal reserve notes	3176	
Federal reserve bank notes	107	
National-bank notes	853	
Total	5101	
Grand total		5548

Total gold stock, under control of the Treasury, $8,132,000,000
Total silver stock (as of November 12, 1934), under control of the Treasury, 659,000,000 ounces

[1] These are illegally in circulation.

CHAPTER III

COLONIAL AND REVOLUTIONARY BILLS OF CREDIT

Colonial Bills of Credit

Government paper money is usually a promise to pay coined money. Such paper is of several different kinds. We will here consider chiefly the kind which does not bear interest, which is payable at no fixed time, and which is made legal tender between individuals.

First Bills of Credit. The first government paper to circulate as money in this country was issued by the colony of Massachusetts in 1690, in order to pay soldiers who had returned from an unsuccessful expedition against Canada. The public treasury was empty, and the soldiers could not or would not wait for the collection of taxes to meet their demands. The General Court accordingly issued £40,000 in bills of credit which were made receivable for taxes and exchangeable for any commodities in the treasury. These were issued to the soldiers in anticipation of the tax collections; they were not payable at any particular time; they did not bear interest; and they were not legal tender. They did not pass for more than twelve or fourteen shillings in the pound. The soldiers lost two fifths of their dues. In 1692 the bills were made legal tender in all payments and receivable for taxes at 5 per cent better than silver and redeemable in silver at the end of twelve months. These provisions made them equal to silver.

Yet this was a fatal experiment. Its apparent success as a means of postponing taxes led to disorders far worse than the commodity currency of the earlier period. It spread to the other colonies like an epidemic. Nearly all the colonial governors were at variance with their legislatures concerning bills of credit. Acting under instructions of the Lords of Trade, they repeatedly

vetoed the paper-money bills. Then the legislatures refused to provide for the support of the local governments. They stopped the salaries of the governors and allowed the public buildings and barracks to go to decay. This source of irritation against the mother country has been grossly neglected by historians in general, but not by Mr. Felt, the historian of Massachusetts currency, who assigns it its proper place among the causes which led to the separation.

In South Carolina in 1719 the people deposed the proprietors' governor, because he would not assent to bills of credit, and the king connived at this act of insubordination in order to get the province under his own authority. At a later period the legislature of this colony, being at variance with the royal governor on the same subject, adjourned for three years, making no provision for the support of the government meanwhile. The same thing happened in New Hampshire. Her representatives for five years preceding the year 1736 refused all supplies. New Jersey did the same for four years, for the same reason. The governors complained to the home authorities; and the latter insisted that the colonies should provide a permanent instead of an annual support for the local governments, which the colonies refused to do because they were not allowed a free hand in issuing bills of credit. In almost every case the governors were at last worn out and compelled to yield. As Mr. Felt says, "The Briareus of paper money was too strong for them."

Petitions against bills of credit, from the mercantile classes in the colonies and from London merchants, at last prevailed on Parliament to take action. In 1751 a bill was brought forward to prohibit paper money in the four New England provinces where the trouble was greatest, but before it was passed the agents of the colonies managed to get exceptions in case of great emergencies and of war. Even in these cases the bills were not to be legal tender between individuals. In 1763 Parliament passed another act much more stringent, and applicable to all the colonies. This struggle over the right to issue paper money should be instructive to those Americans who are advocating such issues in 1935.

A pamphlet of 1743 [1] speaks of the bills of credit in New England issued on loan

to themselves, Members of the Legislature, and to other Borrowers, their Friends, at easy and fallacious Lays, to be repaid at very long Periods; and by their provincial Laws made a Tender in all Contracts, Trade and Business, whereby Currencies, various and illegal, have been introduced which from their continued and depreciated nature in the Course of many Years have much oppressed Widows and Orphans and all other Creditors.

This writer gives special attention to the colony of Rhode Island, which had

defrauded more in a few years than any the most wicked administrations in the several nations of Europe have done in several centuries. A contract made 30 years ago for £100 sterling in value (that is, silver at 8s. per oz.) is at present reduced to a nominal 32s. per oz. . . . This expedient of depreciating their Government bills, by their Laws made a Tender and Currency, is promoted by the fraudulent Debtors and desperate part of the Colony in order to pay former contracts with a much less value than was contracted for, and more especially to defraud British merchants in their outstanding debts. The paper-money promoters are the desperate and fraudulent, these being vastly the Majority in the colony, carrying all elections; both legislative and executive parts of their government are annually elective. Thus Government is perverted and become worse than a State of Nature. If by chance any of the elected opposes the emission of any of those fraudulent bills he is drop'd next election as a professed enemy to the Interest of the Colony. . . . This poor small colony, from a late exact Perlustration, contains not exceeding 20,000 men, women and children, whites, Indians and negroes, have extant about £400,000 paper money. And of this about three quarters is in the Possession of people of neighboring Colonies.

"All our paper-money-making legislatures," says the contemporary writer, Dr. Douglass, "have been legislatures of debtors, the representatives of people, who for incogitancy, idleness, and profuseness have been under the necessity of mort-

[1] Quoted in "A Letter from a Gentleman in Boston to his Friend in Connecticut," in the New York Public Library.

gaging their lands." To the same purport writes Hutchinson in his *History of Massachusetts, 1628–1774.*

Thomas Paine has drawn the portrait of the group. Writing in 1786 he tells us how the speculators and debtors were then working for bills of credit. He says:

> There are a set of men who go about making purchases upon credit, and buying estates that they have not wherewithal to pay for; and having done this their next step is to fill the newspapers with paragraphs of the scarcity of money and the necessity of a paper emission, then to have legal tender under the pretense of supporting its credit, and when out, to depreciate it as fast as they can, get a deal of it for a little price and cheat their creditors; and this is the concise history of paper-money schemes. [1]

Loans from the Treasury. Usurers were then, as now, unpopular. Any means of circumventing them was hailed with satisfaction, and no method was more obvious than that of furnishing loans at the public treasury to those who could not borrow elsewhere, or who wanted to borrow at less than the market rates, or who wanted to borrow from the colony at low rates in order to lend again at high rates. Anybody who had influence could do this. In Rhode Island it was the custom of the favored ones to sell their privileges. The first issue of bills of credit for a loan was in South Carolina in 1712. From this example, says Bancroft, "the passion for borrowing spread like flame on a dry prairie."

Other Pretexts for Bills of Credit. There were three main causes or excuses for the issue of bills of credit: (1) war expenses; (2) loans to individuals; (3) ordinary expenses of government. There were also other minor pretexts. One of the most common ways of increasing such issues was the alleged replacement of old and worn bills, which often meant an issue so large as to leave a margin over for general expenses, and sometimes a very large margin. Thus, of £46,000 Connecticut bills authorized for this purpose between 1713 and 1732, £29,885 went to the payment of colony debts. In this case the General Court did not wait to see what margin would be left after replacing the old and worn

[1] *Writings*, Vol. II, p. 178.

bills, but dipped into the reservoir to meet current charges. Similarly Maryland once issued bills of credit as a sheer gift to a portion of the inhabitants, "the taxables."

Reports were made from time to time to the home government, in response to inquiries as to the amount of bills outstanding. Often these were ingeniously prepared to convey false impressions. To avoid discovery the New York Assembly repealed all safeguards against the reissuing of bills of credit that had been redeemed. When the governor disallowed the act, the treasurer reissued the bills nevertheless. The governor so reported to the Lords of Trade, and added that the treasurer refused to let him know the amount of bills outstanding when requested to do so.

In addition to legal-tender acts there was a great variety of laws to compel people to sell their property at the same price for bills of credit as for silver. The "debtor class" were not satisfied with forcing depreciated paper upon creditors for past obligations, but insisted that they ought to be able to buy as much property with the paper as with specie. Those who had been forced to take the paper for past debts naturally joined in this demand, and the legislatures agreed with them. Hence we find in nearly all the colonies severe penalties on those who charged more for their goods, lands, or services in bills of credit than in money. In some cases the penalty was a fine, in others imprisonment, in others confiscation of the property offered.

Usual Career of Bills of Credit. The usual course of events where bills of credit were issued was as follows: (1) emission; (2) disappearance of specie; (3) counterfeiting; (4) wearing out of bills; (5) calling in and replacing worn and counterfeited issues with new ones; (6) extending the time for old ones to run, especially those which had been placed on loan; (7) depreciation; (8) repudiation of early issues in part and the emission of others, called "new tenor." Dr. Douglass says that Massachusetts had at one time "old tenor, middle tenor, new tenor first, new tenor second." Rhode Island had an indefinite number of tenors.

In all cases, except where the bills were placed on loan, taxes were laid to sink them at some time, near or remote. This was necessary to give them any credit at all, but it was very easy to

extend the time. Consequently postponements were frequent. When Parliament took hold of the subject, it prohibited all extensions and deprived the bills of their legal-tender character after the allotted time had expired. This was regarded as a great grievance. The New York legislature even resolved that bills not tenderable were useless.

Counterfeiting and wearing out were invariable and very trying evils. The former was punishable with death in all the colonies except one or two, — Bronson says in all except Connecticut, — but, although there were many convictions, the extreme penalty was hardly ever enforced. The expulsion of specie which followed after the first emission of bills of credit usually left the people without small change. Then the practice of halving and quartering the bills came into vogue, and this opened a new door to fraud. The counterfeiters halved and quartered their own bills and united the parts to the corresponding parts of genuine ones and sometimes attached the half of a five-pound note to the half of a ten. There was, indeed, no end to their tricks. Some bills of small denominations circulated after they were known to be counterfeit, because there was no other small change.

Worn-out bills likewise were an ever-recurring nuisance. All sorts of opprobrious epithets were heaped upon them. They were called, in various statutes, old, worn, torn, tattered, shattered, ragged, mutilated, defaced, obliterated, illegible, and "unfit to pass."

The depreciation of the colonial bills varied in the different colonies. In Massachusetts the maximum depreciation was 11 for 1 (the standard being "proclamation money"). In Connecticut it was 8 for 1. In 1763 the value of the New Hampshire shilling was a little less than a halfpenny; in 1771 it vanished altogether. Rhode Island old-tenor bills in 1770 were worth 26 for 1. Those of North Carolina were 10 for 1; of South Carolina, 7 for 1. The bills of the middle colonies were kept within reasonable bounds, a result due mainly to the stubbornness of their governors in resisting the legislatures and keeping the issues of bills within limits. The maximum depreciation in New York was only 25 per cent below proclamation money.

The pamphlets and records of the colonial period are filled with accounts of the distress and demoralization caused by depreciated paper made legal tender. As all loans were so payable, the accumulations of age and the inheritances of orphans dwindled. So, too, did the earnings of the wageworker. In order to avoid the losses from a depreciating standard of value, resort was had by workingmen to "store pay," and here they were generally cheated. Trustees and executors who had money in their hands which belonged to other people, and who saw how things were going, often postponed payment on frivolous pretexts, since each delay enabled them to settle their accounts with less value, thus "devouring widows' houses." Not only was bad blood stirred up by the resistance of the royal governors, but a spirit of lawlessness was engendered against the local assemblies if they showed a disposition to resist the demands of the greenbackers of that day. Even after the Revolution the legislature of New Hampshire was mobbed because it refused to issue legal-tender bills. One of the demands of Shays' Rebellion in Massachusetts was for more paper money. In Rhode Island after the Revolution a general system of repudiation of debts, public and private, was undertaken and carried through by means of legal-tender paper, in spite of the decisions of the courts.

Economic Effect of the Loan Bills. Now it may be asked what happened when colonial bills of credit were issued as loans to private individuals. What the borrowers wanted was circulating capital. They borrowed the bills in order to spend them for store goods, provisions, building materials, labor, etc. The wages they paid to laborers were expended for store goods, provisions, etc. So we may say that the borrowers of the bills of credit aimed to get control of the useful things that were on sale in the community, and that they succeeded in doing so. Now, whether the bills depreciated or not, it is evident that the borrowers got an advantage over their neighbors, because they obtained control of this circulating capital at lower rates than others had to pay. This was precisely the reason why they wanted the loan bills to be issued. If they could have borrowed at the same

rate in the open market, there would have been no reason for borrowing from the government. But the injustice did not stop there. Whatever they took out of the loan market in this way caused a scarcity and a rise of the rate of interest for other borrowers. One of the most observing pamphleteers of the day tells us that the rate of interest on "natural loans" always advanced after a public loan. This was due in part to the withdrawal of loanable capital, and in part to the fear of lenders that the bills would depreciate in consequence of the new emission. Most commonly they did depreciate. The borrowers were for the most part landowners. Only two kinds of security were allowed by law, land and bullion. Very little bullion was ever offered at the loan offices. The landowners controlled the legislative assemblies everywhere. Thus the emission of bills of credit on loan was, in effect, a conspiracy of needy landowners against the rest of the community.

Revolutionary Bills of Credit

Bad as the colonial bills of credit were, those of the Revolutionary period were worse. Our ancestors went to war without any preparation. They had no money. They had no system of taxation. They had no central authority capable of enacting and enforcing one, and — what was even worse — they objected to being taxed either by Great Britain or by their own local governments. All the separate colonies began to issue bills of credit, even before the Continental Congress assembled.

Franklin's Warning. Nevertheless the experience of the past had not been wholly forgotten. Even Franklin, who had been an advocate of government paper in earlier times, now recoiled. When the first paper money was proposed in the Continental Congress (June, 1775), he urged that the bills should bear interest, in order to prevent depreciation. When the second issue was proposed, he urged that Congress should borrow on interest the bills already authorized. Both these plans were rejected. The third issue bore interest, and now Franklin urged that the interest

should be payable in "hard dollars." This was voted to be impracticable.

First Issues. There was much confusion of ideas concerning details. While taking time to consider them, it was voted in July, 1775, to issue due bills for two million Spanish milled dollars, to be sunk by taxes in four successive years, beginning November 30, 1779, the taxes to be levied and collected by the states in proportion to their population. The bills were not legal tender. The Congress had no power to make them legal tender, but in January, 1777, it recommended that the states should do so; and this they did, one after another, in one way or another. Before the two millions were issued, another million was wanted and was authorized, together with three millions more before the end of the year. Nine millions more, or fifteen in all, were out before independence was declared. This was called Continental currency, to distinguish it from the issues of the separate states.

From this time the demon of fiat money had possession of the country and worked its will on the inhabitants. The issues ran on, in an increasing volume, till they amounted to $242,000,000 in the year 1779. In 1781 the whole mass became worthless. On this subject the essays of Pelatiah Webster have become classic. Mr. Webster was a merchant of Philadelphia and an ardent patriot. He wrote while the paper-money experiment was going on. We can readily believe him when he says, "We have suffered more from this than from every other cause of calamity; it has killed more men, pervaded and corrupted the choicest interests of our country more, and done more injustice than even the arms and artifices of our enemies."

Early Depreciation. In his first essay (October 5, 1776) Mr. Webster says that he cannot discern any depreciation as yet, or any advance in the prices of goods beyond what a state of war would occasion, even if the currency consisted of gold and silver exclusively. On the other hand, Professor Sumner had collected evidence showing that at some places goods were sold at lower prices for silver than for bills, even before the Declaration was

signed.[1] It is certain that committees were at work early in 1776 attending to the cases of persons who discriminated against paper money. The most common punishment for this offense was seizing some portion of the offender's goods and declaring him an enemy of his country. That this was no trifling penalty is attested by the fact that nearly every one recanted and promised amendment. Nevertheless the number of offenders increased continually. In Philadelphia, in the latter part of 1776, one of the penalties was the closing of the shops of the guilty parties. This caused prices to rise by giving a monopoly to the others; so, when this effect was observed, the first culprits were allowed to reopen.

Early in 1777 the depreciation had become too great to be ignored. Committees were appointed in nearly all the states to prevent engrossing and forestalling.[2] One way to do this was to buy all the goods of a particular kind in sight for the army and to require the owners to accept Continental money for it. This involved the necessity of deciding how much the owners were entitled to retain for their own use or to meet engagements previously made. It was necessary also to fix the rate of wages of labor for reproducing the goods. At a later period the depreciation was so rapid that Professor Sumner says a man might lose his whole wages while earning them.

Price Conventions in New England. Price conventions were the next resort. The first one, held at Providence, was composed of delegates from the four New England states. It fixed the prices at which imported goods might be sold, but an exception was made of arms and ammunition in order to encourage their importation. Retailers were not to charge more than 20 per cent advance. The regulation of prices of domestic products was left to the states, as was also the penalty for overcharging. Rhode

[1] There are several histories of the Continental currency. That of Professor Sumner, in his *Financier and Finances of the American Revolution*, is one of the best. Mr. A. S. Bolles, in his *Financial History of the United States*, was an industrious collector of facts.

[2] Forestalling is buying goods before they reach the market, in order to sell them at a higher price. Engrossing is similar to monopolizing.

Island enacted, in addition to other penalties, that if anybody withheld from sale any goods required for the army or navy, the state officers might seize them and, if necessary, break open buildings. A little later it was enacted that buildings containing any goods needed by the community and withheld by the owners might be broken open and the contents sold at the statutory prices. An exception was made of salt, as being, like arms and ammunition, an indispensable article. The effect of these laws was to discourage importation. Nobody would bring in goods to be exposed to legal pillage. Accordingly the Rhode Island laws against engrossing were repealed after a few months. The course of proceedings in Connecticut was substantially the same. This state, however, had a law to prohibit persons from buying any more goods than the selectmen should judge to be necessary for the use of their respective families. Anything like prudence in laying in supplies was thus forbidden.

Price Convention of the Middle States. A price convention of the six middle states was held at York, Pennsylvania, in March, 1777, but was unable to agree upon a single point. Three states voted that maximum prices should be fixed, that sales by auction should be forbidden, and that importation (which had fallen off, in consequence of the disorderly proceedings of committees) should be encouraged by counties. Three voted against these propositions, believing that they would only aggravate the evils. The subject was accordingly referred back to the states, but the execution of the price-limiting laws was oftener carried out by mobs than by the constituted authorities. In Albany two persons who had sold rum for more than the established price were taken to the market place and put on a scaffold, when they fell on their knees, acknowledged themselves guilty, and promised to observe the law and help to enforce it upon others. Every method of evasion, such as trade by barter, subjected persons to suspicion. Thus Richard Henry Lee, who commuted his rents to payment in produce, was denounced as a Tory and left out of Congress at the next election.

Washington's Views. Mr. Webster, in one of his essays, said that not more than one man in ten thousand was capable of

understanding the subject. The greatest man of the period did not understand it; for Washington wrote to Reed, the president of Pennsylvania, December 12, 1778, commending his zeal "in bringing those murderers of our cause, the monopolizers, forestallers, and engrossers, to condign punishment. It is much to be lamented," he continued, "that each state, long ere this, has not hunted them down as pests to society and the greatest enemies we have to the happiness of America. I would to God that some one of the more atrocious in each state was hung in gibbets upon a gallows five times as high as the one prepared by Haman." Yet he had written, more than a year earlier (September 28, 1777), to John Parke Custis, directing him to see that the rent of certain land and slaves should be so arranged that the payments should have a value relative to the currency. "I do not mean by this," he says, "that I am unwilling to receive the paper money. On the contrary, I shall with cheerfulness receive payment in anything that has currency at the time of payment, but of equal value then to the intrinsic worth at the time of fixing the rent." Only two months before he wrote to Reed about hanging monopolizers, forestallers, and engrossers, he wrote (October 10, 1778) to Custis, advising him not to accept money for a piece of land he was about to sell, but to take other land in exchange for it, because the money might lose its value. This was just what the monopolizers, forestallers, and engrossers apprehended.

Washington was an honest man. It never occurred to him that he was doing with his land and slaves exactly what the others were doing with their provisions and store goods. But, a year later, his eyes were wide open. In August, 1779, he wrote to his agent, Lund Washington, that he would no longer accept Continental money on contracts made before the war, unless other people did the same. "The law," he says, "undoubtedly was well designed. It was intended to stamp a value upon, and to give a free circulation to the paper bills of credit, but it never was nor could have been intended to make a man take a shilling or sixpence in the pound for a just debt, which the debtor is well able to pay, and thereby involve himself in ruin."

When the Father of his Country could make such mistakes,

we need not wonder that the common people were befogged. Washington here says that it was merely intended by Congress to "stamp a value" upon certain pieces of paper. If value can be stamped upon paper, it is obviously useless to work for a living. All that is required to insure plenty and prosperity is to pass a law, and then set a few printing presses at work. If Congress attempts to stamp a value upon a thing that is intrinsically worthless and fails in the attempt, its intentions may form a subject of curious interest, but they are of no practical importance.

After the Revolution and to the end of his life, Washington was an inflexible opponent of bills of credit, and he had need to use all his influence against that form of debauchery in Virginia.

The Final Cataclysm. With the mass of the people nothing could be done. All of them, the wise and unwise together, were hurrying to a cataclysm. Says Pelatiah Webster:

> The fatal error, that the credit and currency of the Continental money could be kept up and supported by acts of compulsion, entered so deep into the mind of Congress and all departments of administration through the states that no considerations of justice, religion, or policy, or even experience of its utter inefficiency could eradicate it. It seemed to be a kind of obstinate delirium, totally deaf to every argument drawn from justice and right, from its natural tendency and mischief, from common sense and even common safety. This ruinous principle was continued in practice for five successive years, and appeared in all shapes and forms, that is, in tender acts, in limitations of prices, in awful and threatening declarations, in penal laws with dreadful and ruinous punishments, and in every other way that could be devised, and all executed with a relentless severity, by the highest authorities then in being, viz., by Congress, by assemblies and conventions of the states, by committees of inspection (whose powers in those days were nearly sovereign), and even by military force; and though men of all descriptions stood trembling before this monster of force, without daring to lift a hand against it, during all this period, yet its unrestrained energy ever proved ineffectual to its purposes, but in every instance increased the evils it was designed to remedy, and destroyed the benefits it was intended to promote; at best, its utmost effect was like that of water sprinkled on a blacksmith's forge, which indeed deadens the flame for a moment, but never fails to increase the heat and force of the internal fire. Many thousand families

of full and easy fortune were ruined by these fatal measures, and lie in ruins to this day, without the least benefit to the country, or to the great and noble cause in which we were then engaged.

Social Terrorism. When the price conventions failed of their object, new ones were held fixing new limits, — as, for example, fourfold the prices of 1774, then eightfold, then tenfold, then twentyfold, — terrorism being applied in each case to enforce the decrees. Country folks accused town folks of extortion, and threatened to come in and take what they wanted by force. Town folks accused country folks of withholding their produce. Laws were enacted against withholders. Anonymous handbills and broadsides were circulated, threatening vengeance on merchants. Turmoil was everywhere. Society was like a train of Eskimo dogs when the driver hits with the whip the leader, which turns and falls upon the dog behind him, and presently the whole pack are piled together in battle, not one knowing what it is all about. As a result of such irrational business disturbances Boston was, in October, 1779, on the verge of starvation; money transactions had nearly ceased, and business was done by barter.

Mutiny of Soldiers. In May, 1779, two regiments of Connecticut troops revolted on account of their bad pay. In January, 1781, the Pennsylvania line broke into mutiny for the same reason and killed a captain who tried to bring them to submission. A soldier's pay had dropped by depreciation from $7 per month to 33 cents, although it had been twice raised by Congress. Washington could not move his soldiers to Yorktown till Robert Morris, the financier of the Revolution, had borrowed hard money from Rochambeau for their back pay.

"New Tenor." In March, 1780, Congress tried the colonial experiment of "new tenor" in a very awkward and roundabout way, and declared old tenor to be worth 40 for 1, the actual depreciation being 60 for 1. As it was supposed that $200,000,000 of Continental money was now out, this was a repudiation of all but $5,000,000 of it. The depreciation then went on more rapidly than before. The new-tenor bills started at a depreciation of 2 for 1, which became 3 for 1 before they reached the army and dropped to 6 for 1 in a few months. Old tenor went at a galloping

pace down to 500 for 1 in Philadelphia, when it ceased to circulate. In the remoter districts of the South it continued in circulation nearly a year longer, and until the depreciation had reached 1000 for 1. The Southern people, when they learned that they had been using the stuff long after it had become worthless in the North, thought that they had been cheated by the Yankees; this intensified the sectional distrust which was already so dangerous.

Counterfeiting. Counterfeiters had been at work all the time and with so much success that Congress was obliged to call in the entire issues of certain dates and declare them uncurrent after a fixed period. The issues thus branded fell 25 per cent as compared with those not branded. Still counterfeiting only hastened the impending crisis, and in that respect it was a public advantage; for, as soon as paper money was dead, hard money sprang to life, and was abundant for all purposes. Much had been hoarded, and much more had been brought in by the French and the English armies and navies.

Specific Supplies. When the paper had become clearly unmanageable, early in 1779, Congress bethought itself of specific supplies as a means of feeding the army. Under this plan requisitions were made upon the states for beef, pork, flour, corn, forage, etc. Contrary to expectation, this was found to be the worst device of all, since it called for a vast new system of transportation, warehousing, and accountablity, and opened the door to innumerable frauds. Robert Morris, the Superintendent of Finance, protested against it in the beginning as the most wasteful method of supplying the army, but his protest was unheeded. Nothing would open the eyes of Congress but an experiment. Instantly there was a tangle of the public accounts which nobody could unravel. In some cases flour collected for the army was not forwarded because there was no money to pay teamsters, but it remained at the place of collection till it was spoiled. Other consignments which were actually sent arrived too early or too late and were left on the ground exposed to the weather. Cattle forwarded for beef were allowed to wander away. Collections were made and not reported. In August, 1780, Washington was obliged to send word to a body of militia, who were

about to march to his aid, not to come, because he could not feed them. Communicating this fact to Congress, he said, "The present mode of obtaining supplies is the most uncertain, expensive, and injurious that could be devised." He said that it had made impressment necessary, and that impressment could not last long. Many of General Greene's soldiers could not leave their tents because they had no clothes. This experiment of specific supplies was an attempt to carry on government without any medium of exchange. It was a complete failure.

Impressments. Impressment, somewhat disguised, had been resorted to from the time when Continental money began to depreciate. To seize a man's goods and tender him irredeemable paper, at a rate which would not enable him to replace the goods, was confiscation of the difference between the value of paper and that of specie. All the price conventions were, in fact, impressment conventions under another name. Congress recommended the impressment of horses and wagons "at a reasonable rate" as early as 1775. This method of securing supplies was not unknown to the colonies. New York had resorted to it in the old French wars, and South Carolina in her Indian wars. Lists of articles impressed, with the prices attached, are of frequent occurrence in colonial statutes. These, however, implied payment in full measure, not long deferred.

When the Continental money began to depreciate rapidly, impressments became more frequent. In Pennsylvania so many horses and wagons were impressed that the country people stopped bringing fuel to the towns. This led to an exception, by the Council of Safety, of teams engaged in hauling wood or provisions. In Virginia impressments were so numerous that the people sent their teams over the mountains or into North Carolina for safety. Others made a practice of removing and hiding a wheel or some other indispensable part of a wagon, so that it might be useless when the impressing officers came. When Washington arrived in camp at Yorktown, ample supplies of bacon had been collected and stored for the army, south of the James River, but they could not be moved because the impressing officers could not find any teams to haul them, in the oldest

settled part of America. Teamsters who had been impressed threw out their loads at the wrong places. Others ran away with them and did not return. Hamilton wrote to Greene that public credit was so totally lost that nobody would furnish aid, even in the face of impending ruin. All this was at the very crisis of the war, while the fleet of De Grasse was sailing into Chesapeake Bay. But for that fortunate conjuncture the war could not have been continued, so greatly had the people been alienated by bad money and the harsh treatment which it led to.

"Scales of Depreciation." In May, 1781, Congress recommended that the states should repeal their legal-tender laws. Some of them had already done so, and now the rest followed suit. All of them adopted "scales of depreciation" for the settlement of debts. These were tables showing how much the money was worth in specie at various times and how disputed accounts should be settled. The tables were notoriously incorrect. The one recommended by Congress placed the currency at par in September, 1777, whereas it was worth at that time only 33 cents on the dollar. Of the resulting confusion Professor Sumner said:

> The courts could not do justice, because depreciation introduced a fraud into the very essence of the case, and the agent of the fraud was almost always innocent, so far as his intention was concerned. If, therefore, the court undertook to release the victim of the fraud from all effect of the fraud, the injury was simply thrown back on the perpetrator, who, being innocent, suffered as much wrong as the victim would have suffered if nothing had been done.

"Not Worth a Continental." Continental money was now an object of execration and afterward of derision. "Not worth a Continental" became a synonym for absolute worthlessness. In the act of Congress approved August 4, 1790, authority was granted for funding the bills in 6 per cent bonds "at the rate of one hundred dollars in the said bills for one dollar in specie." Only $7,000,000 turned up to take advantage of this provision.

Continental Money Considered as a Tax. When the final catastrophe came, some of the wise men of the period exclaimed that the Continental money was simply a form of taxation, and

that it had been paid and canceled. Franklin consoled himself with this idea, saying that the bills clothed and fed the army and that they operated as a tax, bearing most heavily on the rich, as was proper, since the rich had the most money. Strange that so great a man could have been so deceived! If the Continental money was a tax, it did not bear heaviest upon those who had the most, but upon those who kept it longest. Those who had money due them at fixed times and could not hasten the payment were *taxed*, not in proportion to their wealth, but in proportion to the time the debts had to run. All who depended upon regular interest payments — and most of the charitable and educational institutions of the day were in this category — were taxed at various rates up to 97½ per cent of their entire income. It is a complete subversion of ideas to call this a tax.

The word "tax" is from the Latin *taxare*, "to value" or "to appraise." It presumes a methodical arrangement of the taxable persons so that justice shall be done and each shall know what he has to pay. Taxation is the opposite of confiscation. It was adopted in order that confiscation might be avoided. Confiscation, however, has the merit of enabling the government and people to know how much has been taken, and from whom, so that when more propitious times come or a higher sense of justice prevails restitution may be made. The kind of confiscation or taxation that Continental money produced was hurly-burly. The government plundered right and left, and, instead of keeping an account of persons and things, it told the victims to rob the next ones they came to.

A euphemism which still lingers is that "the Continental money fell gently asleep in the arms of its last possessor." A truer figure of speech would be that it passed out of the world like a victim of delirium tremens.

The Alternative. It may be asked what else could have been done. If the Continental money was a disguised tax, certainly an undisguised one would have been better. What the government required was army supplies. These were partly the products of the country and partly imported, the latter being paid for with the products of the country. The people did not avoid the neces-

sity of parting with their products by the device of issuing paper money. Except what was borrowed and begged abroad, the whole cost of the war was paid by the thirteen states out of their annual produce. Therefore it was a question merely of how the contributions should be levied. Regular taxation is always better than confiscation, because it is more economical and because it conserves the public morals, the confidence of the citizens in their own government, and the respect of the world. Perhaps, however, under the circumstances regular taxation was impossible. Some authorities have reached the conclusion that the use of Continental currency was unavoidable.

Display of Luxury during the War. One of the striking phenomena of the Revolution was the great display of luxury. Franklin wrote in 1779, "The extravagant luxury of our country in the midst of all its distresses is to me amazing." Another writer says, "Every form of wastefulness and extravagance prevailed in town and country, nowhere more than in Philadelphia under the very eyes of Congress — luxury of dress, luxury of equipage, luxury of the table." [1]

This is not hard to understand. If a man owed $1000 gold value and was enabled to pay it with $100, he had $900 disposable for other purposes. As this money had not come by hard labor, he would naturally be somewhat free in spending it. He would give good dinners, drive fast horses, and buy fine clothes and jewelry for his family. It was the transfer of property from frugal persons to spendthrifts. While it continued, it gave a deceitful appearance of prosperity. Like conditions prevailed during the Civil War, in both the North and the South.

Post-Revolutionary Bills. After the war seven states (Rhode Island, New York, New Jersey, Pennsylvania, the Carolinas, and Georgia) plunged into paper-money debauchery afresh. There were also severe struggles over the question in New Hampshire, Massachusetts, Maryland, and Virginia.[2]

[1] Greene's *Historical View of the American Revolution.* Houghton Mifflin Company.

[2] See the first volume of McMaster's *History of the People of the United States* (D. Appleton-Century Company), where these movements are well described.

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CHAPTER IV

GOLD: MINING AND PRODUCTION

Mining

The metal gold occupies a unique place among the substances of which the earth is composed. It is accepted by civilized mankind without compulsion and without limit in exchange for all other kinds of property and for all the services that men render to one another for hire. For this reason it is an object of universal desire. As a mineral it is sought for with greater eagerness than any other substance in or upon the earth.

Gold is yellow in color in the natural state, and is the only metal that is so. Its atomic weight is 197.2, that of hydrogen being reckoned as 1. Its specific gravity is 19.3, being exceeded only by that of platinum, iridium, and osmium. Its melting point is 1945° F., at which temperature there is no perceptible loss by volatilization, even when long continued and often repeated. It is the most ductile of the metals. It can be beaten into sheets $\frac{1}{300,000}$ of an inch in thickness. A single grain can be drawn into a thread five hundred feet long. As a conductor of electricity it is inferior only to silver and copper.

Where Gold is Found. Gold is found in placers in the beds of existing rivers, or in those of past geological ages, which are now dry or uplifted or buried under new strata. It is also found in veins of rock formation. It has been found in the United States in rocks of all geological ages. Some geologists believe that gold in fissure veins was deposited there from chemical solutions forced upward from deeply buried rocks of various kinds, from which the gold had been leached under great pressure and heat. Gold is found also in bedded veins of sedimentary rock in conjunction with silver, iron, lead, and other metals. It has been found in

common clay, and also traces of it in sea water. Placer gold has been separated from vein formations and conveyed by running water, in conjunction with gravel and other detritus, to the places where it is found.

The majority of the stock of gold in existence in 1890 had been obtained from placer deposits. For the last thirty years most of it has come from veins in rock formation. For example, most of the South African gold in the Transvaal occurs in this form. Some of the veins in that region are now being mined at a depth of eight thousand feet. This gives rise to a serious problem, since the heat at that depth is very great. Various air-cooling devices have been installed in order to permit the working of the deep veins. It is estimated that great deposits of gold exist at even lower depths. Unless improvements in air-cooling can be developed, much of this gold may never be mined.

Its Affinity for Quicksilver. Gold does not suffer any change by exposure to the air or by being buried in the earth. It is rapidly dissolved in quicksilver at ordinary temperatures, and forms with it an amalgam, either fluid or pasty or solid, according to the proportions of each metal present. The quicksilver can be distilled from the mass by heat and recovered by condensation, the gold being left solid. It thus becomes an agent of supreme importance in the production of gold. Its use was known to the ancients. Pliny says with truth that if gold mixed with impurities is shaken in a vessel containing quicksilver, the latter will absorb the gold and reject the impurities, and that the quicksilver can then be squeezed through a skin, like perspiration, leaving the gold pure. Quicksilver has the same affinity for silver as for gold.

Placer Gold. Placer gold is of various sizes, ranging from dust up to nuggets weighing many pounds, and of various degrees of purity. That of Australia averages 950 in 1000, being purer than any gold coin now in use; that of California averages 884; that of Montana 895. Native gold is almost always associated with silver. In 1000 parts of placer gold of California, 112 are composed of silver and 4 of base metal.

Methods of Collection. The most common method of obtaining alluvial, or placer, gold is by washing river sands. "Panning"

was practiced by the Egyptians in prehistoric times. This process consists of stirring with the hands a quantity of gold-bearing sand in a hollow vessel filled with water. The gold, being heavier than the other material, sinks to the bottom. The earthy matter is spilled over the top of the vessel from time to time as the stirring proceeds. When the panful has been thoroughly washed most of the gold contained in the mass will be found in the bottom of the pan. As there is always some sand and gravel left, it is customary to collect the gold by means of quicksilver.

Sluicing is the method by which auriferous (gold-bearing) sands and gravels are now attacked in places where water can be obtained in sufficient quantity. In the ancient world water from gold-bearing mountains was made to flow over sheepskins and other hides, in which the particles became entangled. Thence, probably, came the legend of the golden fleece.

Sluicing is performed by shoveling gold-bearing earth into running water, which is made to pass through a wooden conduit, on the bottom of which are fastened a series of "riffles," or obstructions, against which the heavier portion of the material lodges. Quicksilver is fed into the stream at various places in the form of a fine rain, being squeezed through chamois leather or canvas to give it dispersion. It passes down the inclined surface and lodges with the other heavy material against the riffles, where it collects the gold by amalgamation. When the first riffle is full, the material suspended in the water passes over the obstruction and is caught in the next one, and so on till all are filled. Then the "cleanup" begins. The gold is found amalgamated with the quicksilver.

Hydraulic mining is sluicing on a large scale, in which the force of a jet of water is used, instead of shoveling, to break down the bank and move the earth and gravel to the entrance of the sluice. For this purpose a powerful head of water is required, from one hundred to three hundred feet higher than the ground to be operated on. The water is collected in mountains, sometimes at long distances from the works, and brought in ditches which follow the contour of the country, often crossing valleys on high trestlework or by inverted siphons. Sometimes the "pay

gravel" is found where there is insufficient drainage, and it becomes necessary to excavate tunnels to carry off the "tailings." One such tunnel in California was 7874 feet long. The water is delivered against the bank through an iron nozzle with something like the velocity of a cannon ball. It soon excavates a hole, which is gradually enlarged until the superincumbent mass falls down. Then this is attacked by the same means, and the whole mass begins to dissolve and follow the drainage line, which brings it to the sluices, constructed like those already described, but on a much larger scale. They are operated on the same principles as the smaller ones. Hydraulic mining is the most economical of all methods of obtaining gold.

The disposition of the tailings has been the most serious problem of hydraulic mining in California. Not only is the natural drainage of the country altered by these operations, but stupendous quantities of earth are carried down and deposited in the beds of the rivers, which are caused to overflow their banks and spread the detritus over the adjoining lands, to the ruin of agriculture. A vast deal of litigation ensued, and the state legislature was compelled to intervene for the protection of the farmers.

Dredging has come into common use in many parts of the world where beds of present rivers and lake bottoms are known to contain gold. Much New Zealand gold is secured in this manner, some dredges operating on the seacoast.

Quartz-Crushing. Gold existing in rock formation is either free-milling or combined chemically with other substances. Often both are found in the same mine. Free-milling ores are treated by crushing and then amalgamating with quicksilver. In reaching the metal and tearing it from the rock, man accomplishes with his own hands what nature has done for him in the case of placer gold.

There are numerous methods of crushing free-milling ores, the one most largely used being that of the stamp battery. The ore is first reduced to the size of a walnut by a stone-breaker. It is then put into an elongated mortar made of cast iron, which has a series of iron pestles arranged side by side, so as to be lifted, one by one, by a revolving wheel and allowed to fall. Water is supplied to keep the mass in a splashing state, and also quicksilver

to amalgamate the gold as it is released from the pulverized rock. Sometimes the sides of the mortar are lined with copper plates which have been previously amalgamated with quicksilver, as the amalgam produced in the mortar tends to adhere to the surface of such plates. The contents of the mortar are thus reduced to a pulp, which is allowed to flow slowly over a series of amalgamated copper plates, by which still more of the gold is amalgamated and retained, the remainder passing off as tailings. The tailings contain some gold, and are subjected to further treatment. The excess of quicksilver in the amalgam is recovered by squeezing it through filter bags of chamois leather or buckskin, which leaves a solid amalgam. The remainder is evaporated by heat and the vapor condensed by passing through pipes which are submerged in cold water. The solidified gold remains.

Chlorination. There are two important chemical processes for the extraction of gold from sulphides and other refractory ores: one by chlorine, the other by sodium, potassium, or calcium cyanide. By the former the ore is first reduced to sizes small enough to expose all the gold contained in it to contact with chlorine gas. It is then roasted, either in a reverberatory or a revolving furnace, in order to expel sulphur, arsenic, and other impurities which would impede the action of the chlorine. The charge is then drawn from the furnace and allowed to cool, after which it is shoveled into a vat and impregnated with chlorine gas. Then it is leached with water, as wood ashes are leached for making lye. The resulting liquor contains chloride of gold, which is usually precipitated by adding to it a solution of sulphate of iron, the gold falling to the bottom in the form of a powder, and usually in a very pure state, sometimes as high as 990. Precipitation can be effected also by passing the solution over charcoal, to which the gold adheres, the charcoal being afterward burned and the gold recovered.

The Cyanide Process. The cyanide process was discovered in 1888, and first used in New Zealand. A solution of cyanide of potassium or sodium will dissolve metallic gold. This affinity is now the basis of great industries and has enabled mankind to save large quantities of the precious metal that would otherwise have been lost. The process is substantially like that of chlorina-

tion, except that roasting is not generally required. The ore is first comminuted, as in chlorination, and placed in large vats, where it is leached by a dilute solution of cyanide, the liquor being allowed to remain until all the gold has been extracted. It is then drawn off by a stopcock into a box under the vat. The gold is precipitated by zinc shavings, and falls to the bottom of the box in the form of a slime. Another method of precipitating the gold is by electrolysis. A current of electricity is passed through the solution, and the gold is precipitated on thin sheets of lead suspended in it and to which it adheres. These are melted in order to recover the gold. More recently sheets of aluminum have been used instead of lead, as the gold can be removed without injury to the sheets. The cyanide process has added largely to the productiveness of the gold fields of South Africa and elsewhere, and has made the accumulated tailings of past years a source of profit. It has made many mines profitable that could not be worked before. There are also many methods of extracting gold by smelting, from other metals associated with it.

In the United States today the gold extracted by the following methods is approximately as follows: cyanide, 30 per cent; placer, 25 per cent; amalgamation, 24 per cent; smelting, 20 per cent; chlorination, 1 per cent.

Production

It is only during comparatively recent times that we have accurate figures on world gold production. It is estimated, however, that from 1493 to 1600 something over 24,000,000 fine ounces were produced in various parts of the world. From 1600 to 1700 another 29,000,000 ounces were added. The eighteenth century showed an increase; during that century over 60,000,000 ounces were extracted. Production was increased only slightly during the first half of the nineteenth century, amounting to about 38,000,000 ounces. From 1493 to 1850, therefore, total world production was only about 150,000,000 fine ounces. At $20.67 an ounce this amounted to slightly over $3,000,000,000.

The production for the first half of the nineteenth century, as computed by the Director of the Mint, is the following:

Period	Annual Average	Total for Period
1801–1810	$11,815,000	$118,152,000
1811–1820	7,606,000	76,063,000
1821–1830	9,448,000	94,479,000
1831–1840	13,484,000	134,841,000
1841–1850	36,393,000	363,928,000
Half-century	$15,749,200	$787,463,000

Gold Production, 1850–1934. After 1850, however, owing to the discoveries in California and Australia, gold production increased with startling rapidity. The next fifty years saw more than twice as much gold added to the world's stock as had been produced during the preceding three and a half centuries. The total came to nearly 340,000,000 ounces, with a value somewhat under $7,000,000,000.

Statistics of the world's production of gold in the second half of the nineteenth century, as published in annual reports of the Director of the Mint, are as follows:

Period	Annual Average	Total for Period
1851–1855	$132,513,000	$662,566,000
1856–1860	134,083,000	670,415,000
1861–1865	122,989,000	614,944,000
1866–1870	129,614,000	648,071,000
1871–1875	115,577,000	577,883,000
1876–1880	114,586,000	572,391,000
1881–1885	99,116,000	495,582,000
1886–1890	112,895,000	564,474,000
1891–1895	162,947,000	814,736,000
Forty-five years	$124,892,000	$5,621,602,000

Single Years	
1896	$202,251,600
1897	236,073,700
1898	286,879,700
1899	306,724,100
1900	254,576,300
Second half-century	$6,908,107,400
First half-century	787,463,000
Century (at $20.67 an ounce)	$7,695,570,400

Probably 10 per cent of the world's gold production escapes the notice of statisticians altogether.

Still gold production did not slacken; instead, during the first fifteen years of the twentieth century it showed a spectacular gain, resulting from the extension of operations in the Rand and the new discoveries in Alaska and the Yukon. The cyanide process and other efficient methods added to the volume of the golden stream. From 1901, in which year the output came to 12,625,527 ounces, with a value of $261,000,000 (at $20.67 an ounce), the total rose to 22,737,520 ounces in 1915, with a value of $470,000,000. During these fifteen years approximately $6,000,000,000 in gold was mined. In the decade ending with 1915 more gold was produced than had been extracted from 1493 to 1850. Then, because of rising costs of production, owing to inflation in the warring countries and most of the neutral nations, production began to decline. But the next five years, 1916–1920, were still responsible for nearly $2,000,000,000 more. *The amazing fact is that the first twenty years of the twentieth century brought more gold to the world's stocks than had been added in the preceding one hundred years.*

An interesting fact should be noted here. Since in gold-standard countries the price of gold has, in the past, been definitely fixed at a certain sum, rapidly rising prices will increase costs of production and destroy a large portion of the profits from gold-mining. The miners can get only so much for their product, regardless of their costs of production. In this country from 1837 until February, 1933, the miner could get $20.67 a fine ounce, no more and no less, since the government stood ready to buy all offered at that price, and sell to all buyers at the same figure.

By 1922 world gold production had decreased to 15,576,000 ounces, the smallest figure since 1902. With lowered costs due to the great price decline in 1920 and 1921, following the war, production again increased, until by 1929, the last predepression year, an annual figure of almost 20,000,000 ounces, with a value of $400,000,000, had been reached. The collapse of world prices, beginning in 1929, brought in its train much lower costs, with the result that in 1932 the previous peak (1915) was left behind. The two years 1932 and 1933 brought about 50,000,000 ounces into

world markets, with a value of approximately $1,000,000,000 (at $20.67 an ounce). In 1934 production again increased.

How long such a high figure can be maintained cannot be foretold. The last three years have seen reopening of old mines, exploitation of poorer veins, a rebirth of prospecting all over the world, and a boom in gold-mining stocks. When, early in 1934, the United States increased the price of gold to $35 an ounce, it really gave a tremendous subsidy to owners of gold mines, increasing their profits tremendously. Prices and costs of production may increase considerably before this additional profit of $15 an ounce becomes impaired. If other nations follow the example of the United States and set a new and higher price for gold, it may be years before we again see a decline in gold production. At $35 an ounce nearly $1,000,000,000 was produced in 1934.

Since 1920 gold production by years has been as follows:

Year	Ounces	Value[1]
1921	15,975,000	$330,232,000
1922	15,452,000	319,420,000
1923	17,791,000	367,764,000
1924	19,031,000	393,406,000
1925	19,026,000	393,301,000
1926	19,349,000	399,982,000
1927	19,431,000	401,678,000
1928	19,700,000	407,236,000
1929	19,500,000	403,104,000
1930	20,836,000	430,725,000
1931	22,940,000	461,592,000
1932	24,154,000	499,241,000
1933	25,280,840	522,550,000
1934	26,910,000	556,229,700

During the past sixty years the Director of the Mint estimates that over 800,000,000 fine ounces of gold, with a value of nearly $17,000,000,000, have been produced.

Gold-producing Centers. The chief gold-producing centers at the beginning of the nineteenth century were Mexico, Colombia, Brazil, Peru, and the province of Buenos Aires in the Western

[1] At $20.67 an ounce.

Hemisphere, and Russia and Hungary in the Eastern Hemisphere. Small quantities were obtained also from the East Indies and from Africa. From 1801 to 1810 the average annual yield from all countries was about $12,000,000, two thirds of which came from American mines. Revolutionary disturbances in Mexico and South America, which broke out in 1810 and continued till 1824, caused a great reduction of their output of both gold and silver. The world's production of gold declined to an average of $7,600,000 per year, which was not sufficient, in the opinion of Mr. William Jacob, a leading authority for that period, to supply the amount used in the arts and make good the loss by abrasion, shipwreck, and other accident. After the restoration of peace in those countries there was a gradual gain in their production of gold. That of Russia increased also, her average output from 1837 to 1848 being $12,500,000 per year, or more than that of the whole world at the beginning of the century.

California and Australia. On January 19, 1848, James Wilson Marshall found a small lump of gold in the tailrace of Sutter's sawmill in El Dorado County, California. This discovery led to a search in the bed of the stream, and also in the adjoining ground, which was found to contain rich deposits of the precious metal. The news spread like wildfire throughout California and the Pacific coast of North and South America, and later to the Atlantic states, and all civilized countries, leading to a great immigration of gold-hunters. The production of the metal in California alone in 1850 was $36,000,000, being equal to the annual average of the whole world during the preceding decade. It reached $56,000,000 in 1851. In the latter year a similar discovery of placer gold was made in New South Wales, Australia, followed by a still more important one in the colony of Victoria. These discoveries were also attended by public excitement and heavy immigration. The production of gold in Australia and New Zealand rose to $65,000,000 in 1854. Concurrently with these discoveries, there was a considerable increase of production in Russia, which reached $25,000,000 per year.

The Comstock Lode. The next great discovery of the precious metals was that of the Comstock lode in Nevada. This was a

fissure vein four miles long in rock of the Tertiary period. It was situated at the base of Mt. Davidson in the Virginia range, an offshoot of the Sierra Nevada. In the central part of the fissure its width was about three thousand feet. The gangue, or vein-stone, was quartz, not uniformly distributed in the fissure, but coagulated in large bodies called "bonanzas." The magnitude of this deposit may be inferred from the fact that, since 1861, when it was first worked scientifically, it has yielded over $350,000,000 of bullion, and that one hundred and ninety miles of shafts and galleries have been excavated in it. Forty per cent of the bullion produced was gold, and 60 per cent silver. By 1882 the richest ore bodies of the Comstock lode had been exhausted, and the annual yield had fallen to $1,333,000, from which point, however, there was a recovery to $7,000,000 in 1887, owing to the working of low-grade ores that had been previously neglected.

South Africa. In the meantime (in 1884) a discovery had been made in South Africa that was destined to surpass in magnitude the Comstock and every other deposit of the precious metals that the world had ever seen. This was in the Witwatersrand of the Transvaal. Here the country rock is a bed of sandstone, interlaminated with deposits of conglomerate, which the Dutch call "banket." This conglomerate carries the gold, the average being ten pennyweights per ton of material. Borings to the depth of many thousand feet have found the gold-bearing reef undiminished. The outcroppings of the reef have been traced for a distance of forty miles. The production of the Transvaal in 1898 was $78,070,761. There was an interruption of the working of the Rand mines in the latter part of 1899 and in 1900 by reason of the war with Great Britain. In the latter year the production fell to less than $10,000,000, but after the war it rose, in 1903, to $59,000,000.

The Klondike. One of the most surprising discoveries of modern times was that of the gold placers of the Klondike in the Yukon Territory of Canada. These are deposits underneath ground which is perpetually frozen. The early method of obtaining the gold was to sink a shaft through the frozen ground by means of hot boulders. Then a drift was run by building a fire

against the face of the ground. The gravel was thrown out and left till summer, when it thawed and was washed by panning. All the gravel thrown out by two men in eight months of winter could be washed in two months of summer.

Changing Sources of the World's Gold. In 1909 the United States produced approximately $100,000,000 in gold. By 1931, in spite of some increase in the preceding two or three years, the total had fallen to less than half of the 1909 figure, to be exact, $45,762,000. Other nations were likewise shifting their positions. The output of Australia had risen to nearly $90,000,000 in 1903; by 1932 it had sunk to $20,000,000. In 1900 Canada was responsible for almost $28,000,000, but by 1908 she was producing less than $10,000,000 a year. However, the rebirth of gold-mining and new discoveries have placed our northern neighbor in second place among the gold-producing nations. In 1931 the output of Canadian gold had risen to $55,715,000, placing the United States definitely in third place, with Russia not far behind, with a total of $35,162,000 for 1931. In 1932 Canada again showed an increase, to $63,000,000. The United States showed little change, but Russia had jumped to $41,000,000, which was much less far behind the United States than in the previous year.

The following table reveals the changing sources of the world's gold between 1908 and 1932:

Country	1908	1932
Africa	$166,520,500	$263,276,000
United States	94,560,000	45,877,000
Australia	73,327,300	20,561,344
Russia	28,052,200	41,139,000
Mexico	22,371,200	12,082,419
British India	10,598,500	6,814,000
Canada	9,842,100	63,061,000
Japan	—	9,000,000

Shift in Gold Centers in the United States. The centers of gold production have shifted in the United States, as follows (in thousands of fine ounces):

State or Dependency	1910	1920	1925	1928	1930	1932
Colorado . .	993 (1)	363	357	259	218	270 (4)
California . .	989 (2)	716	642	513	450	570 (1)
Nevada . . .	913 (3)	175	180	178	140	128 (7)
Alaska . . .	787 (4)	413	301	331	407	433 (3)
South Dakota	260 (5)	210	288	318	406	479 (2)
Utah	209 (6)	103	181	211	209	146 (6)
Montana . .	180 (7)	92	84	60	47	38 (10)
Arizona . . .	165 (8)	240	204	190	149	67 (8)
Idaho	50 (9)	23	20	20	21	41 (9)
Philippines .	7 (10)	62	92	89	185	230 (5)

For years Cripple Creek, Colorado, was the source of a great part of American gold, but now the center has shifted to other regions.

During the past six or seven years nearly 50 per cent of the annual production has come from the Transvaal. Other portions of the British Empire, especially Canada and Australia, are responsible for another 20 per cent. The recent gold-mining boom in Canada is a matter of common knowledge, Canada having now displaced the United States as the second largest producer. Recently, extensive new discoveries have been made in Kenya, a British colony, just south of Ethiopia (Abyssinia). It is expected that exploitation of these new fields will yield remarkable results.[1]

Effect of New Gold on Prices. It was the opinion of Cairnes and Jevons of England, of Levasseur of France, and of Soetbeer of Germany, eminent economists and statisticians of the nineteenth century, that the great output of gold in the fifties and sixties had caused an average increase of the prices of commodities equal to about 20 per cent. In some cases the increase was greater than the average, in others less, and in still others it counteracted a decline of price which would ordinarily have taken place by reason of new inventions and improved processes of production. The four authorities named, working independently of one another,

[1] A recent volume of great value and widespread interest is a collection of articles appearing originally in the London *Times*, but now published in a single volume entitled *Gold*. This may be obtained from the New York office of the London *Times*.

reached this opinion about sixty years ago, and it may be accepted as one of the established facts of statistical science.

The way in which new supplies of gold operate on prices will now be considered. The essential quality of gold is that it constitutes purchasing power. It is per se a demand for goods. People do not mark up the prices of the things they offer for sale merely because new gold mines have been discovered, however rich they may be. If a portion of the community (gold-miners or others) should find two dollars in their pockets where there had been only one dollar before, prices would not rise in consequence merely of that fact. Tradesmen would ask the same prices for their wares, laborers would work for the same wages as before, buyers would expect to receive the same quantities of goods for a dollar as before. But the possession of double the quantity of money by the fortunate persons would double their demand for goods, and this increase of demand would cause an advance of prices. The attempt to supply the demand would call for more labor and cause an advance of wages. Then the advance of wages would enable the wage-earners to improve their style of living by buying more goods, and there would be a further advance in prices unless it should be counteracted by new facilities of production and transportation.

It was in this way that the new supplies of gold operated to cause the advance of both prices and wages in the twenty years succeeding the great gold discoveries of California and Australia. The community was not made richer by using two dollars instead of one to transact a given amount of business, but an advantage was given, as Professor Cairnes showed at the time, to wage-earners over *rentiers* and others having fixed incomes. The former had steadier employment and better pay and a fairer chance to rise in the world, while the latter were obliged to pay higher prices for consumable goods without any enlargement of their income.[1]

[1] As a result of the rapid increase in the output of gold, Mr. White prophesied in his second edition, published in 1902, "The new supplies of gold in the last decade of the century appear to have caused an advance of prices, which seems likely to be progressive for some years to come." The truth of this prophecy was borne out by subsequent developments.

Gold Reserves. The gold reserves of central banks and governments for selected years from 1913 were (in millions of dollars):

	1913	1920	1925	1929	1933	1934[1]
United States	1,290	2,451	3,985	3,900	4,012	8,002
France	679	686	711	1,633	3,022	5,468
England	165	754	695	710	928	1,582
Spain	92	474	489	495	436	740
Belgium	48	51	53	163	380	609
Switzerland	33	105	90	115	386	621
Netherlands	61	256	178	180	371	601
Italy	265	204	219	273	373	541
Germany	279	260	288	545	92	33
Russia	872	105	90	147	416	716
Others	1,149	1,885	2,167	2,136	1,514	2,672
Total	4,933	7,231	8,965	10,297	11,930	21,585

During the twenty-year period 1913–1933 the gold reserves of central banks and governments increased about 140 per cent. The increases in the relative and absolute amounts held by the United States and France are especially noteworthy. Aside from the fact that an alleged scarcity of gold may have, it is argued, helped to bring about the world-wide depression which began in 1929, the table would seem to indicate clearly that the amount of gold which was in existence was much less evenly distributed among the nations in 1933 than in 1913.

Continued Popularity of Gold. We were told many times in the years before the depression that a severe gold scarcity was unavoidable. When England left the gold standard in 1931, and many countries followed her example, we heard that gold had lost favor, that it might never again be a universal standard. But all over the world men are searching for and digging gold with more energy than has been exhibited before in modern times. Perhaps gold has not become so unpopular after all; it seems to have lost little of its charm for human beings. If there was an actual scarcity of gold, it appears to be on the verge of being remedied.

[1] As of October 31, and at $35 an ounce. Previous figures are at $20.67 an ounce.

Distribution of Gold. The present great maldistribution of gold reserves in the important countries of the world remains, however, a serious problem. No adequate solution has yet been presented to solve this great obstacle to a return to a period of successful functioning of the gold standard. In 1933, of a total of about $12,000,000,000 in monetary gold held by banks throughout the world, over $4,000,000,000 was in the United States, over $3,000,000,000 was in France, and nearly $1,000,000,000 in England. These three countries, therefore, held three fourths of the world's monetary gold. At one time in 1931 the United States held approximately $5,000,000,000, but lost over $800,000,000 in the last three months of 1931 and the first half of 1932, owing to the fear that the United States might leave the gold standard. India, to the world's amazement, during 1931 and 1932 disgorged several hundred millions in gold. A tremendous amount of gold-hoarding has been going on throughout the world since 1930. Some authorities estimate that universal conditions of panic have led to enough hoarding to offset all the new production since that year. Devaluation of the dollar on January 31, 1934, led to a tremendous increase of nearly 70 per cent in world gold stocks expressed in dollars. After the dollar was devalued early in 1934, the flow of gold to the United States again increased, nearly $2,000,000,000 having been added to our stocks since that time. By the summer of 1935 the total gold holdings of the United States reached an all-time high point, even at the old price of $20.67 an ounce. At the new price of $35 our gold supply is now over $9,000,000,000.

One of the chief reasons for the fear of a severe credit inflation, rather than a currency inflation, which is becoming so general throughout the United States is that this vast amount of gold will, if used to support the amount of bank credit possible, make a great rise in prices inevitable.

CHAPTER V

MONETARY STANDARDS

In the previous chapters we have made occasional references to the gold, silver, and bimetallic standards. It is now necessary that we explain what is meant when we say that Germany abandoned the silver standard for gold in 1873, that England adopted gold in 1816 and remained on it until the beginning of the World War, that the United States was legally on bimetallism from 1792 to 1873, and that during the World War most of the world was off the gold standard but later returned to some form of it. During the past three years many arguments have been advanced in favor of a return to bimetallism. What, therefore, are the characteristics of these various standards?

The Gold Standard. When a nation adopts a single metal as its monetary base, it is on a monometallic, or "single," standard. We find, in describing the gold standard, that there is no one single type, however. There are various forms of the gold standard; in prewar days there was more uniformity regarding it than since 1924. The type of gold standard in vogue throughout most of the world in 1913 is sometimes referred to as the true, real, full, or complete gold standard. Sometimes it is called the prewar gold standard, although this is not strictly accurate, since in prewar days several countries had what we call the gold-exchange standard.

The characteristics of the full, or complete, gold standard are as follows:

1. The actual monetary unit is a weight of gold. For example, in England there were 113.0015 grains of pure, or fine, gold in the pound sterling. In the United States there were 23.22 grains of pure gold in the dollar. We arrived at this figure by setting a price, $20.67 an ounce, at which the government would buy gold. There-

fore one dollar would buy 23.22 grains. To find how much the British pound was worth in American dollars we divided the number of grains of gold in the dollar into the number of grains of gold in the pound. The result is the well-known figure of $4.8665, which is termed the mint par of exchange. Since January 30, 1934, the price of gold in the United States has been $35 an ounce. An American gold dollar, therefore, now means 13.71 grains of fine gold.

2. There is free and unlimited coinage of gold. Anyone with gold can bring it to the mint and have it coined, receiving in return, if he chooses, gold dollars. In most countries, however, the practice is for the mint to buy at a fixed price all gold offered. The mint also stands ready to sell gold to all who wish to buy at the same price. The gold dollar under this system contains practically a dollar's worth of gold, being what was previously described as a commodity standard, or full-bodied money.

3. There is free movement of gold into and out of the arts. What this means is that since gold has two uses, monetary and industrial, there should be no restrictions on the free movement from one use to the other. In the United States gold coins could be melted down for industrial purposes, such as the manufacture of jewelry, fountain-pen points, gold leaf, etc.

4. All other kinds of money are redeemed freely on demand in gold. By the Gold Standard Act of 1900 the Secretary of the United States Treasury was required to maintain all forms of currency at a parity with gold. Free redemption was the method used to comply with the law. In most gold-standard countries gold coins were in actual circulation, passing from hand to hand; most gold in the United States, however, circulated in the form of gold certificates.

5. There are no restrictions upon the exportation or importation of gold from or into a country. As we shall see later, in the chapters dealing with foreign exchange, when exchange rates between the United States and England rose to what is called the gold-export point, gold flowed from the United States to England. When exchange rates fell to the gold-import point, gold flowed in. The difference between the mint par of exchange and the gold

points was determined by the cost of packing, transporting, and insuring the gold. Consequently, when a country prohibited the exportation of gold, by declaring an embargo, we said that country was no longer on the gold standard, at least internationally. If it also refused to redeem its currency in gold, it was off the gold standard internally as well.

6. Gold is generally full legal tender for all debts, public and private.

The Silver Standard. If we substitute the word "silver" for "gold" in the paragraphs above, we have a statement of the characteristics of the silver standard.

Historically nations have been on gold or silver without fulfilling all the requirements which have just been outlined. Aside from the maintenance of a *fixed* price of the metal, the most important characteristics of the full, or complete, standard are that gold or silver reserves shall be used to maintain free redemption and that there shall be no restriction on their international movements. We repeat that it must not be thought impossible to have *a* gold or *a* silver standard without the presence of all these characteristics. The United States was the only major nation whose postwar gold standard was similar to the one just described. Most of the countries had returned to gold following the war, but in different forms. The only places actually on silver today are China, Hong Kong, Eritrea, Ethiopia (Abyssinia), and possibly Persia. Frequently we are told that India, the Orient, Mexico, and South America are on silver. This is not true. Just because a country has a large amount of silver in circulation is no sign that it is on a silver standard.

The Gold-Bullion, or Gold-Bar, Standard. This is a gold standard of a different type from the one previously described. Under it gold is not freely coined, but the mint or the central bank still buys gold bullion at a fixed price. There is also no restriction on the exportation or importation of gold. The important point is that currency is redeemed not in gold coin, but in gold bars. This is the form of the gold standard adopted by England in 1925 and by France in 1928. Between 1925 and September, 1931, when

England again suspended gold payments, anyone wishing gold had to bring enough Bank of England notes to that bank to equal the value of a bar of gold weighing four hundred ounces, approximately $8000. The Bank of France still redeems its notes in gold bars, since it is one of the few major nations still on gold. The act of July 3, 1934, establishing the Bank of Canada, the new central bank, provides for redemption of that bank's notes in gold bars, upon re-establishment of the gold standard.

The chief reason for selecting the gold-bullion standard is to economize on gold. For years it was felt by British monetary students that no nation could really be on gold unless gold coins were in actual circulation. During the war, however, gold was called in by the government, and, when the question of returning to the gold standard arose, it was realized that the British gold reserves were not sufficient to permit gold again to circulate freely as before the war. It is more difficult for the average individual to hoard gold under this system. The French peasants, however, found a way around this obstacle by co-operating to gather together enough notes to secure a gold bar. Then the bar was sawed into sections proportional to the amount each had contributed.

If those countries now off gold again return to that standard, it will probably be to the form just described or a modification of it, or to the gold-exchange standard, which will be described shortly. The last country holding to the full standard was the United States, but it suspended in March, 1933. On January 30, 1934, the United States devalued the dollar, reducing its content to 13.71 grains, and announced that gold coins and gold certificates would not again be permitted to circulate. Redemption was not freely maintained in gold bars, but gold could be secured for export if the government adjudged the need to be legitimate.

Some authorities declared that the United States had, therefore, returned to gold in a modified form of the gold-bullion standard. Others doubted whether or not we had actually returned to gold. T. E. Gregory, the distinguished British economist, called it a *de facto* gold standard.[1] The difficulty is that it cannot be

[1] T. E. Gregory, "Twelve Months of American Dollar Policy," *Economica*, May, 1934, p. 141.

compared with or tested by the characteristics of any other gold standard, since there has been none just like it. It might be described as an *international gold-bullion* standard, since the chief use of gold is to make payments to other countries. Gold could not be secured freely for export until recently, the movement being controlled by the government. Late in 1934 the government announced that gold could move freely out of the country. Since that date it is possible to say that we are again on *a* gold standard. Gold was always available for industrial purposes.

The apparent purpose of a close control of gold movements is to prevent such sudden flights of it as occurred late in 1931 and the first half of 1932. There is no doubt that if a form of the gold standard is to be successfully administered in the future, some system for the control of international gold movements will have to be adopted. In the tremendous flow of gold from Great Britain, preceding her suspension of gold payments in 1931, it was seen that a country might be forced off the gold standard almost overnight. Short-time capital and deposits kept in banks abroad are extremely "jumpy" and are likely to be withdrawn suddenly. The exchange rates rise to the gold-export points, and gold flows out in large volume. Whether the United States has found a partial solution to this problem cannot yet be decided.

In the early months of 1935 France was still on the gold-bullion standard. Her stock of gold, over $3,000,000,000 (at $20.67 an ounce), is extremely large, but rumors are constantly recurring to the effect that she may be forced off. If she does suspend, it will probably be not because of a loss of gold but because gold-standard countries are finding it most difficult to institute a sustained recovery from the depression.

The Gold-Exchange Standard. The outstanding characteristic of this form of the gold standard is that it provides for the redemption of the various kinds of money in circulation in drafts on bank deposits abroad which are payable in gold.[1] Contrary to popular opinion it is not a recent innovation. We will shortly de-

[1] The information contained in this section has been drawn largely from "The Gold Exchange Standard," by E. W. Kemmerer, a chapter in *Economic Essays in Honour of Gustav Cassel.*

scribe how the world turned toward the gold standard in the years from 1850 to 1900, a number of the countries adopting the gold-exchange standard. Kemmerer states that over a century ago there were standards closely akin to it. When the World War broke out in 1914, this standard was in force in the following places, among others: India, Java, Nicaragua, the Philippine Islands, and the Straits Settlements.

As Kemmerer says, "The gold exchange standard is essentially a mechanism for providing a gold standard without a gold currency. Usually in gold exchange standard countries the money in circulation is mostly paper and silver." A country wishes to tie up its currency with the currency of gold-standard countries, but it cannot afford to secure sufficient gold to redeem internally either in gold coin or gold bullion. It consequently builds up, frequently by floating a foreign loan, a bank deposit in a country which will redeem in gold coin or bullion, and stands ready to sell drafts against this deposit. The buyer of the draft can secure gold for it abroad, therefore, if he wishes.

Under this standard, though the basic monetary unit is still a weight of gold, there is no free coinage of gold. One of the purest forms of the gold-exchange standard was that adopted in the Philippines in 1903. The chief circulating medium was silver, and when it was paid in to purchase drafts on gold funds abroad, it was withdrawn from circulation. The foreign deposit was drawn down when the draft was paid abroad. When persons living abroad had payments to meet in Manila, they would buy a draft and send it to the Philippines. The money paid for the draft would build up the deposits maintained by the island government abroad. When the draft arrived in Manila, it would be paid in silver, and thus the silver would again enter circulation. Exchange rates on these drafts were carefully controlled between what would have been the gold-export and gold-import points had gold actually been moving. In this way exchange stability, the desired objective, was maintained.

In the postwar period this standard became popular, with many variations. Among countries selecting it were Germany and Poland, and Peru, Colombia, and several other South American

countries. Because of the differences between the systems adopted it is now difficult to speak of *the* gold-exchange standard. Some of these countries maintained actual gold reserves within their borders and, under certain conditions, would pay it out. Some countries gave the control of the standard to the central bank; many of these held bills of exchange payable abroad. When gold was needed abroad, these bills of exchange could be sold in the world market.

After the breakdown of the gold standard in 1931 the gold-exchange standard came in for severe criticism. Many of the foreign deposits against which drafts were sold were located in London. One reason why there was such a huge drain of gold from England in the summer of 1931 was that countries on the gold-exchange standard were trying to get their deposits out in that form when rumors spread around the world that England might be forced off gold. When England suspended gold payments, some of these countries suffered a considerable loss. Consequently many of the gold-exchange nations also promptly abandoned gold. Those who still clung to the gold-exchange standard received another blow when the United States gave up gold early in 1933.

Another criticism has been that, under this system, a pyramiding of large amounts of bank credit was possible on gold reserves which were subject to sudden call from abroad. The same gold reserves might be supporting the deposits of a number of gold-exchange-standard countries. Obviously they could not all withdraw their funds in gold at the same time.

As a result of these experiences it may be difficult to persuade many countries to readopt the gold-exchange standard and build up foreign deposits to such an extent again. Danger of war is again entering the picture, and this is very likely to make nations reluctant to leave their foreign gold reserves under the control of others. The future of this standard is therefore problematical. In the present state of monetary chaos throughout the world it is hard to tell what will be the most popular standard in the years to come.

Bimetallism. Under the double, or bimetallic, standard both gold and silver are freely coined at a fixed mint ratio. The mone-

tary unit is a weight of gold or a weight of silver. Both metals are full legal tender, redemption may be in either, and both may be freely exported and imported. The bullion and monetary value of gold and silver dollars are approximately the same.

Bimetallism has had a long history. Previous to about 1870 most of the nations of the world were on either bimetallism or silver. It has been shown in Chapter II why Alexander Hamilton decided in favor of bimetallism for the United States at the ratio of 15 to 1. This meant that at the mint fifteen ounces of silver were required to equal one ounce of gold. There were fifteen times as many grains of silver in the silver dollar as there were grains of gold in the gold dollar. The silver dollar, in 1792, was given a content of 371.25 grains of pure silver. This has never been changed. The original content of the gold dollar was 24.75 grains of fine gold.

We have described how this original ratio proved to be unsatisfactory, as it undervalued gold and overvalued silver. What this means is that gold was worth more elsewhere, primarily in foreign countries, than it was at the mint. Consequently silver flowed in, and gold went out of circulation. To remedy this, in 1834 we changed the mint ratio to 16 to 1 by devaluing the gold dollar to 23.2 grains. In 1837 we again changed the content slightly to 23.22 grains. Again, this did not coincide with the values of the metals set in other countries, and silver went out and gold came in, until we were practically on a *de facto* gold standard.

Frequently it is stated that there is a market ratio which may vary from the mint ratio in the same country. It is difficult to see how this can be true, since both metals are bought and sold by the government at a fixed price. Why, then, should the internal market price vary from the mint price? Under bimetallism what has actually happened is that countries have set different mint ratios. Therefore what has actually caused the flow of gold or silver from one country to another has been a difference in mint ratios. Gold and silver have moved to the country in which they were worth the most at the mint. This would seem to be the real explanation.

How this works may be observed from the following example:

Suppose that the United States and Germany were both on bimetallism, but the American ratio was 15 to 1 and Germany's 16 to 1. Americans could trade fifteen ounces of silver for one ounce of gold, send the gold to Germany, and get sixteen ounces of silver for it. The sixteen ounces of silver could be brought to this country and fifteen of them used to obtain another ounce of gold. The transaction could be repeated, leaving one ounce of silver each time as a profit.

This process might continue until all the gold was driven out of the United States. Many bimetallists used to claim, however, that the *compensatory principle* would come into play before this occurred. They argued that as gold left the United States, its value there would rise and its value in Germany fall, until the values of gold and silver were the same in both countries and the movement stopped. This would be true if there were a real market for the metals other than at the mint. If there is, equilibrium will eventually be re-established, if the United States does not run out of gold before the values have come into balance again.

If, however, the only market is at the mints, it is hard to see how any equilibrium can be attained until one country or the other changes its mint ratio. If the United States were the only country on bimetallism, then a different commercial value might exist between the two metals elsewhere. There would then be a market ratio abroad and a mint ratio here. The same would be true if two or three countries were on bimetallism and the rest were not. The market ratios in the nonbimetallic countries could be different from the mint ratios in the others.

With the enactment of the act of 1873 stopping the free coinage of the silver dollar (the "Crime of '73") the United States definitely gave up bimetallism. In the eighties came a concerted attempt to restore it, culminating in the famous campaign of Bryan in 1896. Bryan wished to restore "free silver" at the old ratio of 16 to 1. The United States would have been the only country on bimetallism. The market ratio of the metals had changed to about 30 to 1. Had Bryan been successful, gold would have moved in large quantities from this country, and silver come in. As a result we should have found ourselves actually on a silver standard.

The support of Bryan came largely from the debtor classes and the farmers, who were suffering because of the long fall in prices. Prices in this country had fallen rapidly after the peak of Civil War inflation. In 1873 prices in all gold-standard countries started down and continued declining for about twenty-five years. In the nineties the effects had become severe, and there was an insistent demand that something be done to increase prices, especially of agricultural crops. All the arguments and the situation itself have been repeated to a high degree in this country during the past four or five years.

There had been attempts before the nineties to revert to bimetallism. Chapter XI, "Silver Dollars and the Panic of 1893," describes the forces which gave rise to the Bland-Allison Silver Purchase Act of 1878 and the Sherman Silver Purchase Act of 1890. The long depression beginning in 1893 gave impetus to the movement, and Bryan took advantage of the widespread discontent in his campaign for the presidency in 1896. Had it not been for the increased production of gold owing to new methods and new discoveries of the metal which started the price level upward in 1897, it is barely possible that, although defeated in 1896, Bryan might have been successful in 1900 instead of suffering another defeat. Then, instead of passing the Gold Standard Act of 1900, the United States might have reverted to the double standard.

One of the usual arguments advanced in behalf of bimetallism was that it would offer a broader base for currency and bank credit and prevent a scarcity of one metal or the other. The compensatory principle would, it was argued, prevent undue fluctuations in the value of gold and silver and tend to bring price stability. Some of the propositions presented in the nineties were rather crude but similar to many offered today. One of these was that the chief cause of the financial troubles of the time was a lack of money, which could be rectified by again permitting the free coinage of silver. The view that the widespread adoption of the gold standard and the demonetization of silver, after 1870, were partly responsible for the long price decline between 1873 and 1897 had a large element of truth in it. There had been a rapid increase

in the demand for gold, which had raised its value and lowered prices, as country after country adopted the gold standard.

Because of the fact that the world ultimately adopted gold, it has frequently been asserted that bimetallism was a failure and a standard which was economically unsound. It should be realized, however, that no final judgment can be passed on bimetallism until it has been tried by all the leading nations at the same time with the same mint ratio in each country. That condition did not exist in the nineteenth century. We can agree that it would be most difficult for any one nation alone to make a success of bimetallism unless it constantly shifted its mint ratio.

It must be concluded that international bimetallism has not been tried on a sufficiently broad scale under conditions which permit the passing of a verdict of success or failure upon it. When England turned to gold in 1816 and refused to consider bimetallism further, it meant that the chances for any successful international agreement became very small indeed. If the present monetary chaos continues for several years, we may again find bimetallism attracting more and more support as a substitute for the single gold standard.

Contrary to a frequently expressed opinion, there is today, probably, no actual scarcity of gold throughout the world. The trouble is that most of it is now concentrated in the United States, France, and England. Germany has practically no gold left. It is not easy to see how gold is to be again successfully distributed among the nations; and until this is done, it is likewise difficult to bring about a successful restoration of the gold standard. In this impasse the cause of bimetallism has again attracted many prominent sponsors. The growing desire to increase the monetary use of silver may eventually culminate in the remonetization of it in many countries. Devaluation is a remedy for gold scarcity in some countries, but would not be of much assistance to Germany. That there is widespread sentiment for remonetization of silver cannot be denied. Various bills tending in this direction have, during the past three years, received a surprisingly large number of votes in Congress.

Senator Key Pittman of Nevada sponsored a plan to increase

the monetary use of silver at the World Monetary and Economic Conference at London in the summer of 1933. Several nations agreed to increase their buying of the white metal and not to dispose further of their present holdings.[1] On December 21, 1933, President Roosevelt ordered the purchase of silver at the rate of not more than 24,421,410 fine ounces annually. This was to be coined with a seigniorage of 50 per cent (at a coinage value of $1.29 an ounce). The purchase price was, therefore, 64½ cents an ounce. In 1934 the United States, by Congressional enactment, began to buy silver at 64½ cents an ounce until that metal should form one fourth of its total metallic reserves. On August 9, 1934, President Roosevelt nationalized all silver stocks, except coins, at a price of not more than 50.01 cents an ounce. Just as in 1878 and 1890 bimetallists were forced to be satisfied with silver-purchase acts, so far they have had to be content with the President's Proclamation of December 21, 1933, the Silver Purchase Act of 1934, and the President's Proclamation of August 9, 1934, nationalizing silver. Apparently it is unwise to predict that the silver question is settled. Contrary to the prophecies of its sponsors the Silver Purchase Act of 1934, by raising the price of silver, did not help our trade with the Orient but launched China into a severe crisis. In April, 1935, Mexico also experienced a crisis.

The Theory of the Automatic Gold Standard. It was customary for many years to assert that the gold standard tended to operate in an automatic manner. David Ricardo, a famous British financier and economist, who published a work in 1817 entitled *Principles of Political Economy and Taxation*, is usually given the credit for having developed the theory of the automatic gold standard.

The theory runs as follows: Countries A and B are on the gold standard. Country A has had an addition to the supply of gold

[1] During the last quarter of the nineteenth century there were three international conferences to restore bimetallism, in 1878, 1881, and 1892. The first and third were sponsored by the United States, the second by the United States and France. They all failed to agree. As a result, Mr. White, in his second edition, 1902 (p. 102), wrote, "There is little reason to expect that there ever will be another international conference to establish bimetallism." Who would dare to make such a prophecy now?

in its bank reserves. Since the banks do not wish to keep a part of their reserve idle, they will promptly begin to expand their loans and investments. Deposits and bank-note issues will likewise increase. Since these constitute the chief means of payment, and an increase in deposits and bank notes means an increase in buying power for the community in general, the prices of commodities in country A will be gradually forced up in response to the stimulus of the added demand.

Prices in country B have remained more or less stationary, inasmuch as there has been no addition to its gold reserve. Thereupon citizens of country A begin to buy more from country B because of the lower prices there. This will continue until the foreign-exchange rates in country A are forced upward to the gold-export point and gold flows from country A to country B.

The banks in country B now have a larger reserve upon which to expand bank credit, and they proceed to do so. The export of gold from country A has drawn down its bank reserves; banks there must consequently contract bank credit, and prices fall. But in country B, because of the expansion based on its additional gold reserves, prices begin to rise. Citizens of country B then begin to buy more in country A, since prices are lower there, and gold flows from country B back to country A. The process is then repeated, gold moving back and forth as an automatic corrective force and preventing any undue rise or fall in prices in one country or the other.

The automatic gold standard, described above in perhaps an oversimplified form, depends for its successful operation upon certain conditions. These are as follows:

1. A reasonable degree of freedom in international trade. If, for example, an increase in exports from country A to country B were met by an increase in tariffs in country B, the restoration of equilibrium would not come about so quickly. A high degree of international competition is, therefore, necessary.

2. A state of relative equilibrium in the balance of payments between the two countries. If country A were lending heavily to country B, or country B paying large sums in interest to country A, the flow of gold from one country to another might not be so

quickly checked and turned in the opposite direction. If country A had, for example, been an ally of country B in a war and borrowed heavily from B, an attempt by A to meet its obligations to B might keep gold moving steadily in the direction of B for some time, unless, of course, B bought an increasing amount of goods from A.

3. A high degree of currency stability. Fear of the effects of instability may cause a flight of short-time capital, speculation, or withdrawal of bank deposits, any of which may cause large movements of gold.

4. An equitable distribution of the world's gold supply. The world's gold supply should not be concentrated largely in two or three countries. If distribution is more or less even, and other conditions are favorable, a movement of gold into or out of a country should soon bring about a flow in the other direction.

During the seventeen years since the conclusion of the World War it has been evident that the conditions for a free functioning of an automatic gold standard have not been present in a large portion of the world. The rapid and general increase in the number of tariffs and other barriers to the movement of goods was one obstacle. The existence of vast debts was another. In fact, even before the World War it had ceased to be an automatic standard and was becoming a "managed" standard, managed largely for the purpose of preserving a sufficient gold reserve. Central banks, especially those whose reserves were in a somewhat delicate position (with little excess) and subjected to sudden drains, did not feel that they could permit gold to move out until automatic readjustments occurred.

Attempts were often made to check continued gold exports by raising the rediscount rate at the central banks, so as to restrain domestic bank-credit expansion and increase the earnings of short-time-capital funds at home. This discouraged investment abroad and encouraged an inflow of funds from other countries seeking a higher rate of return. The movement of short-time capital from one country to another has frequently, during a short period, been a more important factor influencing exchange rates

and gold movements than the exportation or importation of commodities. "Management" for the purpose outlined above has become of more and more importance.

Why Equilibrium Is Hard to Restore. According to the automatic theory gold exports could not continue indefinitely. But it has become clear that the necessary conditions for the restoration of equilibrium have seldom been present since the World War. The various treaties drafted at the end of the war, the burden of reparations laid upon Germany, the existence of the international war debts, large private loans abroad by Americans following the war, and the growth of national and international agreements and cartels controlling the production, sale, and prices of numerous commodities and raw materials have prevented any prompt restoration of an equilibrium. The injurious effect of tariff barriers has already been mentioned.

The popularity of the gold-exchange standard following the war necessitated greater management. Central banks interfered in the foreign-exchange markets by buying and selling exchange for the purpose of holding exchange rates within narrow limits. After England departed from gold in 1931, exchange-rate control became general throughout the paper-standard countries. England set up a huge equalization, or stabilization, fund which has been used to prevent wide and sudden fluctuations in the pound sterling. Other countries have done the same. The United States, under the Gold Reserve Act of 1934, created an equalization fund of $2,000,000,000 from the profits derived from devaluing the dollar. Germany remained nominally on gold during 1933 and 1934, but had practically no gold left in the reserves of the Reichsbank. Only by carefully controlling the buying and selling of the mark in foreign-exchange markets was Germany able to hold the mark at the mint par established in 1924.

Under postwar conditions large gold exports, instead of causing a normal readjustment, have brought high discount rates, contraction of bank credit, a collapse in prices, and a depression. Large gold exports preceded England's suspension of gold payments in 1931; she could not allay fears by borrowing $650,000,000 abroad and using this large sum to meet her obligations. In short,

before an equilibrium can be restored under such conditions nations find themselves faced with financial and banking crises. The shock is too great, and international banking and financial centers collapse under the sudden strain. Management of the standard either was not of a sufficiently intelligent type or was impossible.

The recent financial history of China is a case in point. When the United States, under the Silver Purchase Act of 1934, began to buy silver, it forced the price of that metal up. The effect was to lead to an export of silver from China, which decreased bank reserves and forced a withdrawal of silver from circulation. The ensuing contraction of bank credit and money caused a sudden fall in prices and launched China into a severe crisis, during which a number of banks failed.

Advantages of the Gold Standard. There were at least four great advantages of the old gold standard. The first was that it maintained exchange-rate stability. So long as gold could be freely exported or imported, exchange rates could fluctuate only between the gold-export and gold-import points. This was, obviously, a great benefit to countries to which international trade was of large importance. Exporters and importers and others who had business dealings abroad could always be sure that exchange rates would never vary by more than a small amount. Certainty was therefore assured. In decided contrast were the wide fluctuations in such rates following the war until the world again returned to gold, and again since 1931. It is therefore easy to understand why so much emphasis has been placed upon the necessity of again securing stability in the foreign-exchange field. It was on this point that the delegates to the World Monetary and Economic Conference at London in the summer of 1933 were unable to agree, because the United States refused to place exchange stability ahead of other desired objectives, such as an increase in prices followed by stabilization of those prices.

A second advantage of the old gold standard was that it set an upper limit to the expansion of bank notes and bank credit. Most gold-standard countries have, since the war, required a certain specified gold reserve against bank-note issues. They have also established legal reserves against deposits in the central banks, or

the force of custom has achieved the same result. Bank notes and bank deposits can, therefore, increase to the point where the minimum legal or customary reserve ratio has been reached. If the nation remains on the gold standard, it then becomes necessary to stop further expansion. Professor George F. Warren of Cornell has described this situation in an illustration drawn from agriculture. The old gold standard, he says, was like a calf tied to a tree. The slack in the rope corresponds to surplus gold; the calf to bank credit and currency. The calf can run only to the end of the rope, when he is pulled up suddenly. The type of wild inflation which has frequently been experienced by paper countries is thereby avoided.

Inflation is, of course, possible under the gold standard. If a country gains a large amount of gold and creates all the bank credit possible upon this additional reserve, there can be a considerable rise in prices, unless production and trade increase proportionately. This was the type of inflation experienced by the United States during the war, when the cost of living more than doubled. Temporarily the United States may have been off gold during 1918, but for the greater part of the war period this example is valid.

A third advantage was that gold furnished an international standard of value and medium of exchange. Gold was the chief form of international money, and by linking a currency with gold it was possible to have a real international standard. Currencies based on a weight of gold have a definite value in terms of other gold currencies, but paper currencies without a gold base cannot be so easily expressed in terms of one another. This is why so many monetary authorities believe that a universal restoration of some form of the gold standard is absolutely necessary, because, they feel, it is the only standard which has any chance of being truly international in the near future.

The fourth advantage, the importance of which it is difficult to assess, is that both domestic and international business confidence seems to be easier to maintain when countries are on gold. The experience of a hundred years, so it is claimed, bears out this conclusion. Conservative monetary theorists argue that uncertainty

in the field of money is not only disturbing but disastrous, and that monetary certainty can be secured only when gold is the ultimate standard of value. It can well be argued, however, that remaining on gold is not sufficient in itself to maintain or restore business confidence. An example may be found in the deepening of the depression in the United States from 1930 to early 1933.

Disadvantages of the Gold Standard. In recent years the gold standard has been subjected to severe criticism. Probably the chief point of attack has been that foreign-exchange-rate stability is purchased at the price of internal price instability. The unit is a fixed weight of gold, which is worth a definite sum, established by the government. But the value of gold is expressed in its purchasing power over commodities, and this is constantly fluctuating. In other words, the *price* of gold is fixed, but its *value* is constantly changing. Exchange rates remain fixed within narrow limits, but the internal commodity-price level is constantly changing, with injurious results.

It is therefore argued that, since rapidly fluctuating prices cause such havoc, it is better to try to stabilize them than to stabilize exchange rates. Inasmuch as it is difficult to do both, it is best to permit exchange rates to be the point of instability. An idea added here is that where the gold standard has been managed it has been with an eye on gold reserves and exchange rates but never on what was happening in the field of commodity prices. At this point it might be interjected that the automatic gold standard depended upon price fluctuations and corresponding changes in exports and imports to restore equilibrium. But critics of the gold standard retort that the automatic standard is as extinct as the iron money of Sparta, that control is necessary.

A second major criticism brought against the gold standard is that, just as the calf in Professor Warren's example may be jerked violently head over heels if he reaches the end of his rope too abruptly, so the entire economic and banking structure may be subjected to a severe shock when the end of the gold rope is reached and expansion must give way to contraction. For example, large gold imports may create huge excess reserves in the central banks. Bank credit may expand; it may continue expand-

ing for some time, and business in consequence be given a vigorous upward thrust. Everything is progressing beautifully in a prosperous manner when suddenly the reserve ratio approaches the legal minimum. The brakes must therefore be applied in the form of higher interest rates and a refusal to make new loans or renew old ones, and business suffers a shock which may result in a severe depression.

A third disadvantage, also emphasized, is that there has been so much blind worship of the gold standard, a worship closely akin to superstition, that nations will follow policies which are destructive of their economic welfare in an effort to remain on gold. For example, a nation will find its gold reserve imperiled. To protect that reserve it will increase its rediscount and interest rates to so high a point that business cannot pay the additional cost of borrowed money and prosper; that is, business cannot afford to obtain the bank credit necessary to maintain a high state of activity, and must slacken its pace. Unemployment, a collapse of prices, and depression follow. This may be only temporary or may drag on for years. Opponents of the gold standard believe that the proper course would be to abandon gold and prevent too much inflation by a judicious type of central-bank control. Why remain on gold, they ask, when by so doing a depression may become unavoidable?

It is also argued that a nation previously on gold but now on paper may return to gold prematurely in an effort to be in style, and so bring disaster upon itself. Take the case of such a nation, which is under a paper-money regime and decides to return to gold. Shall it return to the old gold par or devalue (reduce the gold content of its unit)? Pride and tradition may lead to the decision to return to the old gold content. But suppose this country depends largely upon international trade for its prosperity. Returning to the old gold content of its unit may set the exchange rates so high that former purchasers of its products will find them too expensive and turn elsewhere. Unless that country can reduce its internal costs of production, so that the rise in the international cost of its monetary unit is offset by a reduction in prices, it may enter a long period of depression. This, it is asserted, is

exactly what happened when England returned to the old gold content of the pound in 1925, instead of devaluing.

Still another case under which worship of the gold standard may cause difficulties can be found in a period during which countries not previously on gold are turning to it. This may set up such a large demand for gold for banking and currency reserves that an actual gold shortage results. There is not, then, a sufficient supply of gold to enable the banking systems of all gold-standard nations to create the amount of bank credit necessary if business is to continue on a prosperous level. If goods have been produced in increasing amounts because of the improvements in technical efficiency, the price level will fall and profits decline. From 1873 to 1896 prices in all gold-standard countries fell approximately 45 per cent. Many economists agree that the cause is to be found in a situation similar to that just outlined above. After 1870 many countries turned to gold, gold production was not sufficient to supply the demand, commodities were being produced in increasing quantities, owing to great technical advances, and prices had to fall. The long and severe depressions of the seventies and the nineties are attributed partly to this state of affairs.

Conclusions on the Gold Standard. It is not generally realized that the gold standard is comparatively modern in origin. Until the beginning of the nineteenth century silver and bimetallism had been the dominant monetary standards. Occasionally a nation which was nominally on bimetallism found that the mint ratio was such that silver was driven out and a *de facto* gold standard actually resulted. As has been pointed out, England actually drifted on the gold standard some years before she adopted it definitely by legal enactment in 1816. No other nation followed her example for over forty years, although the United States was on a *de facto* gold standard from about 1840 to the Civil War.

Professor T. E. Gregory of the University of London believes that had it not been for the gold discoveries in 1848–1849 the international gold standard would never have been universally adopted. Its popularity seems to have depended largely upon whether or not commodity prices were rising or falling. From the end of the Napoleonic Wars, in 1815, until 1849 the trend of com-

modity prices was downward, which was one of the chief reasons why no other nation followed England in its adoption of gold during those years. This long period of falling prices brought great discontent and economic suffering. The political revolutions which took place in many European countries in 1848 were due, in part, to the unrest occasioned by falling prices. In the United States the long depression of the eighteen-forties was accompanied by all manner of proposals for a complete revision of the economic system. It is interesting to compare conditions in this period of falling prices with those in a subsequent period of falling prices from 1873 to 1896. The similarity is striking.

The gold discoveries in California and Australia were responsible for a bitter monetary controversy. Silver was still the actual standard in most of central Europe, the Orient, Central and South America. Holland definitely threw in her lot with silver in 1848. In France one powerful group desired to give up the double standard for the single silver standard. Bagehot and Jevons were in the forefront of the debate, both advocating an international coin.

As prices rose, after the increase in gold production, silver began to lose its friends. Portugal adopted gold in 1854, and other countries became interested in doing likewise. In 1870 Austria, Russia (nominally on silver), Italy, and the United States were actually on inconvertible paper-money standards. Germany was on silver. The turning point came when Germany, after the Franco-Prussian War, used a portion of the indemnity paid by France to secure enough gold to introduce the gold standard. The Scandinavian countries followed, and the Latin Monetary Union began to move away from bimetallism to prevent the loss of gold by its members.

Without quite realizing it the world was going over to gold. The rise in world prices from 1850 to 1872 was making that standard increasingly popular. Then began a slow decline in prices which lasted from 1873 to 1896, and the bimetallic controversy again reared its head, just as it has since 1930. The advocates of bimetallism argued that the demonetization of silver and the growing demand for gold had increased the value of the yellow metal and that consequently prices were forced downward. A similar argument was recently advanced by Father Coughlin. In the first

international monetary conference called by the United States in 1878, and held in Brussels, England refused to give up gold but did not encourage other countries to change to that standard. But the movement was too strong to be checked, especially after the United States by demonetizing the silver dollar in 1873 showed where its choice lay. In the eighteen-nineties the gold standard won out, although it seemed for a time that a procession away from it might again begin. In the United States both the Republicans and the Democrats in the campaign of 1896 favored international bimetallism. The main difference between them was that Bryan was willing that the United States should revert to bimetallism by itself, if international agreement could not be obtained.

Many of the countries which went on gold in the eighteen-nineties did not select the full, or complete, form of that standard. It was rather the gold-exchange standard that was introduced in Austria-Hungary, Italy, Russia, India, and several South American countries. It is an open question, however, whether or not the world would have remained on gold if there had been no cyanide process or new gold discoveries in South Africa and the Klondike. Had prices continued downward steadily, the opponents of the gold standard might have been successful, and bimetallism today might have been dominant. The final victory of the gold standard before the war was won in the period of rising prices from 1897 to 1914. The supporters of bimetallism gradually diminished in numbers and power. Criticism of the gold standard steadily grew milder, and monetary issues tended to disappear from the political scene.

Should the World again Return to Gold? It has already been pointed out that the gold standard is being subjected to vigorous criticism. If its defects are as bad as asserted, then an alternative standard must be found. Are the deficiencies so frequently pointed out defects in the gold standard itself, or are they rather due to the way in which the gold standard has been managed or regulated? The latter is probably the case, since the gold standard has come to be more and more subject to control either by the government or by central banks.

The fact that England made a mistake in its manner of reintroducing gold in 1925 is not to be interpreted as the fault of the

standard itself; rather the fault was that England returned to gold with the pound at its former content. Had the pound been devalued, it is probable that much of the ensuing difficulty could have been avoided. When France returned to gold in 1928, she devalued the franc and found that, as a result, the evil consequences which England encountered were avoided. In France inflation had been so much greater (the price level having risen to a point eight times the prewar figure, later falling to five times that figure) that return to the old gold content for the franc was out of the question. Had France attempted it, the result would have been a most disastrous deflation and fall in prices. Had France reduced the gold content only 50 per cent, the result would have been similar but to a less serious degree.

France debased the franc to about one fifth of its prewar content, a very great devaluation. The internal value of the franc (expressed in domestic prices) was above the newly chosen external foreign-exchange value, and therefore the internal value had to fall so that it would approximately equal the external value. Prices in France consequently rose and continued to rise for some time after the price level sagged downward in most countries in 1929. The contrast between the results in England and France is striking and shows that the point at which a country stabilizes its currency is of great importance.

The fact that gold had become so highly concentrated in France and the United States by 1929 cannot be attributed wholly to the gold standard. The fundamental reason was that the international balance of payments was heavily in favor of these two countries. Another reason was that citizens and banks of other countries, endeavoring to find some place where their funds would be safe in the postwar period of monetary chaos, transferred large sums to the United States and later to France. Another reason why gold accumulated in France was that during the flight from the franc, when it was expected that France would repeat Germany's inflationary experience, many Frenchmen sent large sums abroad. They later withdrew them, and gold flowed to France as a result.

Critics of the gold standard claim that the maldistribution of

gold in the postwar period shows that the gold standard is unworkable. What they say may be true, but it must be remembered that the prevailing conditions in these years would have made the going rough for any standard. A part of the trouble lies in the type of control exerted by central banking institutions under the difficult situation created by the burden of reparations, war-debt payments, and tariff barriers resulting from the war.

Most countries will probably find it advisable to return, ultimately, to some form of the gold standard, possibly to the kind introduced by the United States early in 1934. But it will have to be a carefully managed gold standard. Central banks should recognize their responsibility and not hesitate to act when the need arises.

Three great problems present themselves:

1. How can gold be more evenly distributed among the countries needing it, if the nations are again to return to gold? Consider the case of Germany, with practically no reserve left, although by virtue of stringent control in the foreign-exchange markets the mark remains at the old par.

2. How can large and sudden movements of gold from one country to another be prevented? These flights, so common since 1929, have played havoc with the functioning of the gold standard. Some measure of international co-operation must be devised to prevent these movements, which can hurl a country from gold almost overnight.

3. At what points should countries stabilize their currencies in the foreign-exchange markets when they return to gold? There is no ready answer to this question, and it cannot be decided offhand. Those who demand that gold should be restored at once, without any consideration of the respective gold contents, are ignoring much of the postwar experience. The point at which a country stabilizes is highly important, especially if it has a large foreign trade. The experience of England in this connection should not be forgotten.

Return to the gold standard will, so far as we can tell, be a gradual matter. If, however, England decides to devalue the

pound and go back to gold, those countries which suspended gold payments, following her example, may likewise find it advisable to return to gold. Events have occurred so rapidly and so unexpectedly in the past five years that any prophecy is quite out of the question. With German reparations and the inter-Allied war-debt payments now a thing of the past, it should be easier to return to and remain on gold. It should be emphasized that a high degree of international co-operation will probably be necessary to make the gold standard work successfully in the future.

A Managed Currency. While gold still has its ardent supporters, another group of economists feel that either the gold standard itself is so defective or its proper control so difficult that it would be preferable to supplant it by another, of one of the following types:

The Compensated, or Commodity, Dollar. The purpose of this proposal has already been mentioned. The underlying reason for its advocacy is that prices must be stabilized, and the most successful manner of accomplishing this goal is to vary the gold content of the dollar from time to time. Irving Fisher, Warren, and Pearson are its most ardent advocates. It has been contended, however, that it is probably based on an oversimplification of the reason why prices vary.

Prices, so these authorities contend, are expressed directly in gold, and therefore a reduction in the gold content of the dollar will automatically cause prices to rise. The dollar would not be coined, but would circulate in the form of notes which would be convertible on demand into varying amounts of gold bullion.

A price index — that is, an average of the prices of a large number of commodities — would be the guide as to how much the gold content of the dollar should be raised or lowered once a month. The weight of the dollar, under Fisher's plan, would not be raised or lowered more than 1 per cent at any one time (during any one month), and the government would sell gold at a slightly higher price than it would buy it. The object of these provisions is to prevent speculators from making undue profits by anticipating changes in the content of the dollar.

In other words, the dollar would be "rubber" as to weight but

constant as to value, instead of, as now, being constant as to weight and "rubber" as to value. This is Fisher's reply to those who ridiculed his plan by terming his dollar a "rubber dollar." To those who argue that the compensated, or commodity, dollar, as it has come to be called, is a departure from the gold standard, Fisher responds by claiming that it puts the "standard" in the gold standard. Kemmerer maintains that a nation cannot be on gold unless it has a *fixed* price for gold and describes the Fisher plan as a commodity-price-index standard. Which of these two authorities is correct is largely a matter of how the gold standard is to be defined.

Fisher has courteously and patiently endeavored to answer all criticisms and is convinced that he has done so. He would not rest his case upon varying the gold content alone, but would add further control through the rediscount rates and open market operations of central banks. In the United States it would be the Federal Reserve System which would exercise such control, although now the creation of a national monetary authority is being proposed. Warren and Pearson, however, minimize the importance of banking control, assuming that changes in the gold content of the dollar would be sufficient.

Criticisms of the Commodity Dollar. When most of the world carried on its business transactions by means of gold or silver coins, there was much truth in the contention that prices were expressed directly in bullion. This gave rise to the "bullionist" theory, that prices varied with the amount and value of the commodity in the basic monetary unit. Opponents of this theory claim that this direct relationship seems now to have disappeared. Gold today, they argue, acts as a reserve for banking and currency systems, and goods are bought not with gold but with checks and currency. The part played by gold is to determine how large an amount of bank credit and currency may be created. Therefore a change in the gold content of the dollar affects the size of the reserves upon which a superstructure of bank credit may be built. Reducing the amount of gold in a dollar is the same thing as raising the price of gold. Immediately the amount of gold reserve (expressed in dollars) increases, but whether prices

are affected to an important degree will depend upon whether this added reserve will be used to permit an expansion of bank credit. Fisher appreciates this point, but Warren and Pearson minimize its importance.

Kemmerer has developed his criticism of the commodity dollar along the following lines:

1. A long period of rising prices would dangerously deplete the gold reserve. As prices rose, the gold content of the dollar would be increased, which would be equivalent to lowering the price of gold. If prices continued upward, so much gold would have to be placed behind each dollar that the dollar value of the total reserve might become too small to meet necessary reserve requirements. But Fisher would probably reply that prices could not continue to rise, if the gold content were steadily increased. If nothing else brought prices down, the decrease in the dollar value of the gold reserves would ultimately force a contraction of bank credit. Prices would then fall.

2. The action of speculators would make the plan unsuccessful, if prices changed more than 1 per cent a month. Anticipating a continued decline in prices, speculators would turn their bank deposits into gold at once in order to get more gold than they would later when the gold content was lowered. When the reduction was made, they could turn their gold in and get more dollars for it. If gold were continually withdrawn and not returned, reserves would be depleted, money markets would tighten, and interest rates would rise, which would tend to make prices even lower.

Fisher would probably respond that this danger is exaggerated, that no one could forecast the future movement of prices accurately enough to decide whether or not to withdraw gold or bring it in. There would not be enough months in which prices changed by more than 1 per cent to cause serious difficulties. If there were, it would be possible to provide for a larger change. Moreover, since March, 1933, gold has not been in circulation anyway, being used only for international payments; therefore speculative profits are unlikely. It must, however, be concluded that since speculators are continually on the lookout for profit-

making opportunities, there is some basis for this objection, since they would find a way if one existed.

3. Widely fluctuating exchange rates would play havoc with international trade. This is a serious objection. Since mint parities of exchange depend upon the comparative gold contents of their monetary units, every time a change was made in the content of the dollar, the mint par of exchange between the United States and other countries would automatically vary. This difficulty might be overcome if all countries were to adopt a commodity dollar based upon an international price index, but this is unlikely in the near future.

One group of economists would agree with Fisher that internal price stability is more important than exchange-rate stability. The advantages of the one would more than offset the advantages of the other. Furthermore, the problems arising would be no greater than many paper-standard countries have experienced during the past fifteen years.

4. Other factors than the number of grains of gold in the dollar are responsible for price changes. Warren and Pearson readily admit this and say that there are four factors in price determination: the demand for and the supply of gold, and the demand for and the supply of commodities. It was previously mentioned that these two authorities placed little stress on bank credit. There is another factor in price determination which they ignore, the rapidity with which money and bank deposits circulate (velocity of circulation). We shall have to postpone further discussion of the reasons for price fluctuations until we reach Chapter VIII, "Prices and the Value of Money." All we shall say here is that changes in the velocity of circulation have a most important bearing on price changes.

The Gold-Purchase Plan. The gold-purchase program, beginning in October, 1933, and the devaluation of the dollar in January, 1934, are in a way an adaptation of the commodity-dollar theory. There is, however, no publicly expressed intention as yet to keep changing the number of grains of gold in the dollar. President Roosevelt has announced his conversion to the idea of a managed currency, but a definite program to be followed in all

its details has not yet been presented, except that the object will be to raise and then stabilize prices. It is alleged frequently by conservative economists that the entire program has been unsuccessful because commodity prices did not rise with the price of gold. It is true that the large wholesale price index constructed by the United States Bureau of Labor Statistics has not risen proportionately. But if we turn to an index number of basic commodities and raw materials we find a different story.

When the United States permitted the dollar to depreciate in April, 1933, it was equivalent to an increase in the price of gold, inasmuch as more paper dollars had to be paid for an ounce of that metal in the London free-gold market. The striking fact is that an average of thirty basic commodities constructed by the *New York Journal of Commerce* rose simultaneously with the decline in the international value of the dollar. The close correlation was amazing to many of those who contended that there was little or no relationship between the price of gold and the price of commodities. Other factors may have been at work, but Warren and Pearson and the Committee for the Nation to Restore Prices and Purchasing Power are convinced that the gold-price-raising policy was successful. The opponents of this policy find some difficulty in explaining just why raw-material prices should have risen to such a corresponding degree.

The hypothesis upon which Warren and Pearson work is that the prices of basic commodities and raw materials respond to changes in the number of grains of gold in the dollar. Some students have thought that they base their argument upon commodities with an international market, but this, the two Cornell authorities contend, they do not do. It was for a while believed that Warren and Pearson were arguing that a depreciating dollar, after a reduction in its gold content, would enable foreign purchasers to buy more and lead to a rise in prices; and since Americans would have to pay more for imports, the prices of such commodities would also rise. This argument could be understood, but the two authorities claim it has little bearing on their proposals.

They hold that whether or not the commodity has an *inter-*

national market makes little, if any, difference and point to increases in the prices of both domestic commodities and those moving in international trade in an attempt to prove their case. Some international commodities are subject to price control and their prices do not change. Some domestic commodities and certain international commodities have changed, while others have not, in accordance with the conditions of supply and demand in each particular case. Individual prices will not change proportionately; a large index of all commodities will move slowly, but an average of basic commodities and raw materials did respond either because of the depreciation of the dollar *or for other reasons.*

If the argument is limited to international goods, it can be seen that, if a price quoted for wheat in Liverpool remained constant in shillings, the amount the American exporter received would vary with the changing number of grains in the dollar, as this would affect exchange rates and, therefore, the number of dollars received when shillings were converted into pounds. But Warren and Pearson do not advocate this explanation, although they assert that such might be the result. They hold that, with an absence of price control, and no variation in demand or supply, a change in the price of gold is the chief force causing price changes. Their statistical evidence is impressive, although most American economists have rejected their theories.

A Managed Paper Standard. This is advocated by certain economists as a substitute for a standard based upon metallic reserves. It is proposed to divorce the monetary standard entirely from gold and substitute a paper standard so managed and regulated that the price level remains stable within rather narrow limits. Fisher's stabilized, or compensated, dollar has the same object in view but endeavors to attain it by different methods.

At first glance it may seem that a managed paper standard is a unique proposal. But it has been already emphasized that the gold standard is now managed. The objective of management may be different, but the element of control is present. Paper standards have been very common during the past twenty years; so there is nothing unique in that respect. Since 1931 a number of countries in the paper group have been exercising a certain

degree of management, price movements having been held within rather narrow limits in some. Actually, therefore, a managed standard of this type is now being tried.

The objective of management is to stabilize the internal buying power of the monetary unit, stability in the foreign-exchange rates being minimized. The criticisms against the Fisher plan on this point would therefore apply here. But supporters of this form of standard argue that once prices have been more or less stabilized, industrial fluctuations will be less frequent, changes will not be so rapid, and the exchange rates will actually vary by surprisingly small amounts. If international financial difficulties did develop, it would be safer to permit exchange rates to vary accordingly than to cling to a gold standard, when by so doing deflationary forces may be instigated. Several countries on paper standards have, however, exercised control over exchange rates as well.

Many critics dismiss the case for a managed paper standard with the general statement that it cannot possibly work. But one who reads *A Treatise on Money*, by John Maynard Keynes, must admit that it seems to be feasible. Management would, of course, have to be centered in the hands of the central banks or central monetary authorities, whose policies would go far toward determining the success or failure of this kind of control. There is an obstacle here, of course, because there is considerable doubt as to the wisdom and intelligence shown by central-bank management in the recent past. Many central-bank officials have stubbornly refused to acknowledge that their policies can have any effect upon the price level. Obviously a period of instruction for central-bank officials must be an essential part of this program.

As in the Fisher plan, political control would be a great danger. It would probably constitute the chief obstacle, because the power to control prices is a great one and if misused can cause disaster. Eventually we may be able to create a monetary authority more or less free from partisan politics, but the prospects are not overencouraging.

Another great difficulty has to be considered. Economists are not yet certain whether it is more desirable to have a slowly rising

price level, a slowly falling price level, or a stable one. Until a decision can be reached on this point, it is, of course, impossible to set up a satisfactory management policy. A slowly falling price level, it is argued, will be advantageous because with cheapening costs of production the benefits should be passed on to the consumer in lower prices.[1] But slowly falling prices may act as a deterrent on business enterprise because of a decline in prospective profits.[2] We must remember that our most serious depressions have occurred during a period of falling prices. The eighteen-forties, seventies, and nineties bear testimony on this point. Depressions following periods of rapidly rising prices have usually been shorter and less severe than those which have occurred after a period of relative stability or a gradual price decline.

It is retorted on the other hand that slowly rising prices will give rise to a speculative boom because profit-making opportunities increase. Therefore it is concluded that they are undesirable and that the only course left is to stabilize. But when we study price movements in the United States from 1922 until 1929, it is difficult to be convinced that relatively stable prices will prevent depressions, because various wholesale price indices were relatively stable during those years. Why, then, did we encounter such a severe depression?

Finally, when it has been decided which way prices should move, the next problem is to select a price index which will be the most satisfactory guide. Shall it be an index of wholesale or of retail prices, or of changes in the cost of living? Would it be better to adopt as a guide the general price index constructed by Carl Snyder of the Federal Reserve Bank of New York? This includes not only wholesale and retail prices of commodities, but freight rates, prices of real estate, rent, wages, and security prices. It is almost impossible to decide which of these indices would be preferable, although some form of a wholesale price index would possibly be best for this purpose as a short-run test.

There is probably only one way in which the question can be

[1] See F. A. Hayek, *Prices and Production* (The Macmillan Company).

[2] For a good argument on this point see Alvin H. Hansen, *Economic Stabilization in an Unbalanced World* (Harcourt, Brace & Company), Chap. XVIII.

settled, and that is by experimentation. But experimentation in the monetary field is likely to cause fear and uncertainty throughout banking and financial circles. We have seen just what happens in this respect in the past three years, and it makes us loath to enter upon additional experiments. The price which must be paid may be higher than can be afforded at the present time.

Ultimately the world will, doubtless, adopt a managed paper standard, but not until our knowledge of the cause and effect of price fluctuations is more complete and the relationship between price fluctuations and prosperity and depression stands more clearly revealed. In addition, a better technique of central banking must be developed and a more satisfactory kind of international co-operation discovered. Eventually all this may be accomplished, but the prospect is not, at present, a highly encouraging one.

The Tabular Standard. Under this standard, which may not accurately be called a standard, although it is generally so designated, contracts would be made between debtors and creditors calling for a repayment, not of a fixed sum of dollars, but of a fixed amount of buying power. The payment of principal and interest would fluctuate in amount with changes in the purchasing power of money. Use would be made of an index number of prices in order to show how much more or less must be paid by the debtor. The object is to remove the injustices which develop between debtors and creditors when the price level changes. The Rand-Kardex Bond was an attempt to set an example of what types of contracts should be drawn under this proposal. One difficulty would be that debtors are always willing to pay less; they are seldom willing to pay more.

Symmetallism. This is a standard based upon bullion which contains both gold and silver in a definite proportion. In other words, if currency is redeemed in bars under this system, the bars would contain a mixture of the two metals. Some authorities who prophesy a gold scarcity believe that this would be a satisfactory standard.

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CHAPTER VI

MONETARY STANDARDS (Continued)

History of the Gold Standard before 1914

Speaking broadly, it may be said that the ancient world had the double standard of silver and gold; that the single silver standard prevailed during the Middle Ages, from the seventh century to the thirteenth; that the double standard was then reintroduced and prevailed in Europe and America till the beginning of the nineteenth century, and that it had by 1914 been superseded by the single gold standard.

The gold florin, first coined by the city of Florence about the year 1252, was introduced to meet the needs of the growing commerce of the Italian republics. The convenience of gold in making large payments had been observed by the crusaders at Byzantium. The idea of a gold currency was brought back in this way to western Europe, from which it had disappeared long before in the penury of the Dark Ages. Gold thus became an addition to, not a substitute for, silver money, and thus the double standard was re-established.

Market Values of the Precious Metals. The market values of the two metals, gold and silver, like those of other commodities, are subject to the law of supply and demand; they are liable to change of value with reference to each other. Sixteen pounds of silver may be worth more than one pound of gold today, and less at another day. One of them may be in greater demand in India than in England, and so on. There are persons in every community (bankers, brokers, and bullion dealers) who seek to make a profit out of these changes by exporting or melting coins. Theirs is a perfectly proper vocation, as legitimate as the getting of gain from any mercantile transaction; yet it has been held in

great opprobrium at some periods in the world's history, has been treated as a crime, and severe laws have been passed to punish persons guilty of it. The community was put to inconvenience by finding either gold or silver coins growing scarce in the circulation. These were called "coins of the realm." They were regarded as belonging in a peculiar sense to the country whose stamp they bore, whereas they were the exclusive property of individuals, who had the same right to dispose of them as of their sheep or oxen. The enactments in various countries against trading in the precious metals, and especially against exporting or melting them, form a remarkable chapter of human fatuity and folly. It was impossible to execute the laws passed for this purpose. A remedy for the alternate drains of gold and silver was accordingly sought by changing the legal ratio. "In France," says Mr. W. A. Shaw,[1] "the ratio of gold to silver was changed in a single century more than one hundred and fifty times." To enumerate all the changes of ratio that took place in Europe from the middle of the thirteenth century to the beginning of the nineteenth would be a hopeless undertaking.

Experience of England. The true solution of these difficulties was first reached in England. This country had had her share of the loss and vexation due to changes of the ratio. She had also visited cruel punishments on people for melting and exporting the precious metals. All attempts to enforce these foolish laws were eventually abandoned, and it came to pass in the reign of Charles II that the guinea of gold, although proclaimed by royal authority to be the equivalent of 20s. in silver, passed in trade for 21s., and no attempt was made by the government to interfere. The guinea remained as a trade coin till the third year of George I (1717), when another proclamation was issued, making it legally equal to 21s., at which figure the ratio to silver was about $15\frac{1}{5}$ to 1.

Act of 1774. As gold was slightly overrated at the ratio of $15\frac{1}{5}$, there was a tendency to export silver; and for this purpose the full-weight coins were selected. So it came about in the course of half a century that the only silver coins remaining in circulation

[1] *History of Currency*, p. 31.

were those which had been much reduced in weight by abrasion or by fraudulent clipping. The evil became so intolerable that Parliament, in 1774, passed a law providing that silver coin should not be legal tender for more than £25 in one payment, except by weight at the rate of 5s. 2d. per ounce. It was enacted at the same time that gold coins deficient in weight should be called in and recoined, and that thereafter such coins, if under a certain weight, should not be legal tender at all. The restriction of the legal tender of silver was to continue two years. The expectation of Parliament was that some effectual and permanent steps would be taken to deal with the evil of light coins in that interval, but since nothing was done, the act of 1774 was renewed in 1776 for two years more. In 1778 it was renewed for seven years, and then by repeated renewals it was carried forward to 1798. Another clause was now added that no more silver should be coined at the mint for private persons.

The significance of this legislation was not perceived at the time. It had not been the intention of Parliament to establish the single gold standard. The question of standard was not under consideration at all. What Parliament did in 1774 was (1) to put the gold coin in a state of perfection by recoining the defective pieces and making light coins unavailable in payments thereafter; (2) to limit the legal-tender faculty of the silver money then in circulation. The mint was still open, and anybody could have silver bullion coined into money of full weight and full legal tender. But since silver was undervalued at the ratio of $15\frac{1}{2}$, nobody would take it to the mint. Thus all the conditions of the single gold standard were in practical operation without any fixed intention of Parliament to bring it about, or any knowledge that it had been done.[1]

[1] "The fact that a change in the monetary standard of the country, while it was in actual process of accomplishment under their eyes, could have escaped the recognition of contemporary observers, seems at first sight to be of so marvelous a character as to pass the bounds of belief. Yet that it was a fact is beyond all question" (Carlile's *Evolution of Modern Money*, p. 18). The truth was pointed out by Lord Liverpool in 1805 and Mr. Carlile properly calls it "a genuine stroke of genius" on his part.

Gold Standard Adopted. It was noticed, however, that the inconveniences of a shifting ratio had disappeared. There was plenty of gold money for large transactions and of silver money for small ones. Although the silver coins were deficient in weight, they answered the purposes of small change. After the experience of a quarter of a century Parliament and people were convinced that the act of 1774, although adopted as a temporary measure, ought to be made permanent. Accordingly it was made so in 1799. Yet it was not until 1816 that the true philosophy of the step was well enough understood to secure its enactment into a settled law. In that year it was enacted that the gold coin of the realm, when of full weight, should be full legal tender and should be coined for private persons to any amount, and that silver coin should not be legal tender for more than 40s. in one payment, and should be coined only on government account and should be reduced in weight 6 per cent. This law, which established the single gold standard, was of great historical importance.

The United States and Portugal. In 1853 the United States followed the example of England, by reducing the weight of its silver coins smaller than one dollar and making them legal tender for only five dollars in one payment. The statesmen who passed this law supposed that they were adopting the single gold standard, but this was not legally accomplished until 1873, as has been explained in Chapter II. The kingdom of Portugal adopted the single gold standard in 1854.

Experience of Germany. In the year 1857 the states composing the German Zollverein and the empire of Austria entered into a monetary treaty by which they adopted the single silver standard. The treaty provided that any of the contracting states might coin gold crowns and half-crowns to circulate at their market value. It was expressly stipulated that these should not be legal tender. They might be received at the public treasuries, however, at rates to be fixed by the respective governments at least once every six months, but the rate should not be higher than the average commercial rate for the preceding six months. The official rate might be changed oftener if the market rate should make such change necessary.

It happened at this time that France was importing gold and exporting silver on a very large scale. As the market ratio was now 15.27 and the legal ratio 15.50, there was a profit to bullion dealers of $1\frac{1}{2}$ per cent in the traffic. The gold crowns of Germany were drawn to Paris as fast as they came from the mints, and the country was left with silver coins only for her domestic trade. These were so bulky and inconvenient that they were largely supplanted by issues of bank notes which were subject to varying rates of discount in different cities and states. This condition was considerably aggravated by the heterogeneousness of the silver coins of the several states — thalers, marks, florins, guldens, kreutzers, etc. There was a very general demand for a uniform system of coins; and, when the question was brought up for solution after the consolidation of the German Empire, it was decided by the government to make gold the standard, with a silver subsidiary currency — in other words, to adopt the English system. The first bill for this purpose became a law December 4, 1871. It discontinued the coinage of silver except for the government. It provided for the coinage of ten-mark pieces of gold (equal to $2.38), of which $139\frac{1}{2}$ should contain one pound of pure metal; also twenty-mark pieces of double the weight; and all gold coins were made unlimited legal tender. For the purpose of settling preexisting contracts and of exchanging gold for silver coins, it established the ratio of $15\frac{1}{2}$, which was the market ratio at the time. Provision was made for calling in and melting the outstanding silver money and exchanging gold for it out of the funds in the Imperial Treasury — practically the French war indemnity. Another law containing further details was passed July 9, 1873. This law definitely established the gold standard and provided a new subsidiary coinage based upon the silver mark, which should be legal tender for only twenty marks in one payment. It was provided that the old thalers (three-mark pieces) should be full legal tender as long as they should remain in circulation. Under the law for taking in and melting the old silver coins upwards of 7,000,000 pounds weight of fine silver were sold in the open market between 1873 and 1879. The price of silver declined 9d. per ounce during that time. The sales were then suspended.

There was a brief bimetallist revival in Germany in 1894–1896. It grew out of the low price of grain, which was erroneously ascribed by the landowners, or Agrarian party, to the demonetization of silver. Chancellor Caprivi so far yielded to the demands of this party as to authorize a commission to investigate the question. It consisted of sixteen members, and it held twenty-one sessions and took a large amount of testimony, but came to no resolution whatever. Soon after this commission came to an end Chancellor Caprivi retired from office and was succeeded by Prince Hohenlohe. Thereupon the Agrarians in the Reichstag started up afresh and on February 16, 1895, prepared a motion asking the government to take the initiative in calling a new international monetary conference. This motion was supported by a large majority of the Reichstag, and the government somewhat reluctantly referred it to the Bundesrat, whose consent was necessary. Nearly a year was consumed in the deliberations of the several states composing the Bund. On February 16, 1896, Prince Hohenlohe announced that the German states had unanimously rejected the motion to convoke an international monetary conference.

In 1874 Sweden and Norway followed the example of Germany by adopting the gold standard, and Holland did the same in 1875.

French Monetary Law of 1803. At the beginning of the nineteenth century France had the double standard at the ratio of $15\frac{1}{2}$. This ratio had been adopted in 1785, at the instance of Calonne, Comptroller General. The Revolution came on, and the monetary system was plunged in chaos by issues of irredeemable paper so vast that they could only be cleared off by repudiation. Then the statesmen of the republic passed the coinage law of 1803, intending to establish the single standard of silver. The law began with a general provision that five grams of silver nine-tenths fine should constitute the monetary unit bearing the name of the franc. The measure was before the legislative body three years. Eight reports were made upon it, the point in controversy being the various methods proposed for utilizing gold in the currency while making silver the sole standard. No decision was ever reached on this point, but at the last moment a clause was added to the bill providing that gold pieces of 20 francs should be coined at the rate

of 155 to the kilogram. Under this law five grams of silver would constitute 1 franc, and five grams of gold $15\frac{1}{2}$ francs. The debates and reports show that there was a general understanding that if the market ratio should change so as to make a recoinage necessary, the gold should be recoined and the silver franc kept as the invariable measure of value. There was nothing on the subject of legal tender in the law, but since all debts were payable in francs, and since two kinds of francs were authorized to be coined, the law really established the double standard at the ratio of $15\frac{1}{2}$, which ratio existed already by virtue of the law of 1785.

It has been frequently asserted that the French law of 1803 kept the market ratio of the two metals steady at the legal ratio, that is, at $15\frac{1}{2}$, until 1873. This is an entire mistake. There were only six years in the seventy in which the market ratio was approximately $15\frac{1}{2}$. These were 1806, 1807, 1811, 1820, 1851, and 1867. In 1821 gold money had nearly disappeared from France, and the circulation consisted of silver exclusively, and so continued until 1851, when the great outflow of gold from California and Australia cheapened that metal, putting the market ratio below $15\frac{1}{2}$. The ratio remained below $15\frac{1}{2}$ till 1867. During that interval France imported gold to the amount of $600,000,000, and exported so much of her silver to India that she suffered inconvenience for the want of small change. She was compelled to coin gold pieces as small as five francs. The government attempted at first to adopt the English system of subsidiary silver coins, limiting their legal-tender faculty to fifty francs in one payment. Accordingly in 1864 it brought before the Corps Législatif a bill lowering the fineness of the coins smaller than five francs to $\frac{835}{1000}$, thus reducing their value about 7 per cent. The next step taken was the formation of the Latin Monetary Union.

The Latin Monetary Union. This was an attempt, beginning in the year 1865, to establish uniform coinage on a bimetallic basis, with concurrent circulation, by treaty between four European countries (France, Belgium, Switzerland, and Italy) in which bimetallism already prevailed. The union proved to be an embarrassment to all the nations concerned, and resulted in the adoption of the single gold standard by all of them in succession. This

change was adopted by simply discontinuing the coinage of silver for private persons and limiting it to subsidiary coins struck on government account.

Austria-Hungary. Under the treaty of 1857 with the states of the German Zollverein the single silver standard prevailed in Austria-Hungary, but the currency in actual use was irredeemable paper. The monetary unit was the silver florin, the normal value of which was 45.3 cents of our money. In 1879, in consequence of the heavy decline in the price of silver, the government gave orders to the mints in both Austria and Hungary to receive no more of that metal from private persons for coinage. The effect of this order was to make government paper money the standard, and this paper varied somewhat from day to day in comparison with gold, but it no longer followed the downward course of silver. The paper florin was worth in 1879 about 42 cents. In 1892, before the currency reform was adopted, it was worth 41 cents. If it had kept pace with the decline of silver, it would have been worth only 30 cents. Austria had a gold coinage at this time, but it was not legal tender. In 1892 she decided to resume specie payments in gold. She first fixed a ratio at which all paper money and paper obligations should be redeemable. The ratio decided upon was 119 paper to 100 gold, as this had been the average ratio prevailing in the market during the thirteen years from 1879 to 1892.

The next step taken was to pass a coinage law. The krone (crown) of gold was made the monetary unit, containing 4.7 grains of fine gold, the ten-crown piece being worth $2.026 of our money. Silver was to be coined only for the government and to be legal tender for fifty crowns. The government was authorized to borrow gold sufficient to redeem its outstanding notes amounting to 312,000,000 florins. Gold to the amount of 112,000,000 florins was borrowed, and this, together with some reserves in the treasury, was applied to the purpose of retiring 200,000,000 of the notes. The method adopted was not direct redemption. The government deposited the gold in the Austro-Hungarian Bank and redeemed its own notes partly with bank notes and partly with new silver money which was needed to replace the small notes thus retired. In this way 200,000,000 florins of old notes were with-

drawn and canceled before the end of the year 1897, which left only 112,000,000 outstanding. When this was accomplished, the value of the paper florin became very nearly equal to gold of the new standard.

British India. After many struggles with the double standard, the single standard of silver was established in British India in the year 1835, the unit of value being the rupee. Before 1873 this coin was worth about 1s. 10¼d., but was usually reckoned as the equivalent of 2s., or 48 cents, the price of silver being about 60d. per ounce. With the gradual growth of commerce the inconvenience of silver, on account of its bulk and weight, became oppressive. Hence as early as 1859 the commercial classes of the country began to urge the government to adopt the gold standard, with silver as subsidiary, but nothing was done until 1893.

On June 21, 1892, the government of India transmitted to the home government a report and plan for currency reform prepared by Sir David Barbour, financial secretary of India. In this report it was considered impossible to establish in India a currency composed entirely of gold; yet the example of France and of other countries, which had the gold standard but maintained a large circulation of silver of full legal tender, pointed to the conclusion that the gold standard could be established in India without a large accumulation of gold. Sir David avowed himself a bimetallist in principle, but in the event of a failure of the Brussels Monetary Conference he thought that an attempt should be made to establish the gold standard in India. The government of India requested permission to discontinue the coinage of silver for private persons. The subject was referred to a committee of seven, of which Lord Herschel was chairman. The committee's labors extended over a period of seven months. On May 31, 1893, it recommended that the request of the government of India for permission to close the mints against silver be granted, the right to coin rupees on government account being retained. In order, however, to guard against any sudden and large advance in the value of the rupee on account of its scarcity, it was recommended that the government should announce that it would give rupees

for gold at the rate of 16d. per rupee and would receive gold for taxes at that rate. The recommendations of the committee were approved by the home government and were promulgated by the government of India on June 26, 1893. The first effect of the closing of the Indian mints was a heavy fall in the price of silver. The price at the beginning of June, 1893, was 38¾d. per ounce. After the announcement was made, it fell to 27½d. The price of rupees fell gradually to 13d., but rose during the next five years to 16d. As the quantity of rupees in circulation could not be increased, they began to have a "scarcity value." In other words, the demand for them, owing to the growth of business, exceeded the supply and raised the price to 16d.

In March, 1898, a committee of thirteen, with Sir Henry H. Fowler, M.P., at its head, was appointed by the Anglo-Indian government with a view to the completion of the policy initiated in 1893. The committee made a report July 7, 1899. It said that it was deemed important to assure the world that India was not to take any backward step from the position already assumed. Events had been, on the whole, propitious since 1893, the value of the rupee having risen by reason of its scarcity to 16d. and remained stable within the ordinary fluctuations of exchange. Inasmuch as the public had come to regard 16d. as the par value of the rupee, and since business had adjusted itself to that ratio, it was deemed best to maintain it.

Gold was made legal tender in India by Act 22 of 1899, at the rate of fifteen rupees to the sovereign. In the budget statement issued at Calcutta in March, 1900, it was said that the government had accumulated upwards of £8,000,000 in gold. The standard actually adopted was not the complete gold standard, but the gold-exchange standard.

Japan Adopts the Gold Standard. Before 1897 Japan had the double standard in law but the single silver standard in practice. She had been under the regime of irredeemable paper from 1873 to 1886. In the latter year she had resumed specie payments in silver. The decline in the price of that metal and the consequent disturbance of the foreign exchanges induced the government, in 1893, to appoint a commission to make inquiries concerning the

coinage system and the monetary standard. This commission remained in session twenty-two months. It made its report in July, 1895, a majority of the members recommending the adoption of the single gold standard.

The war between China and Japan took place the same year, and the Chinese indemnity fund, equal to £38,000,000, put in the hands of Japan the means to carry this monetary reform into effect with very little delay. It was stipulated in the treaty of peace that the indemnity should be paid in London in English money. The law to carry the reform into effect was passed in May, 1898.

At that time the market ratio of silver to gold was about 32 to 1. The gold yen of the old coinage was in circulation as commercial money and was worth about double the value of the silver yen. It was decided to make the gold yen the unit of value, and to make it approximately equal to the value of the silver yen at that time. For convenience in reckoning, and in order to keep the gold yen of the former coinage in circulation, the new yen was given exactly one half the metallic content of the old one. The fineness was nine tenths. The weight of the ten-yen piece was 8.3333 grams, and its value was $4.98. The gold pieces authorized to be struck at the mint were those of 5, 10, and 20 yen. All gold coins were made unlimited legal tender, the old yen to circulate at double the value of the new.

Russia Adopts the Gold Standard. Russia suspended the coinage of silver for private persons on September 9, 1876. Before that time she had had the single silver standard nominally, but had been under the regime of irredeemable paper. This paper was quoted in terms of gold in all transactions of any magnitude. In other words, gold was in practice the standard of the Russian mercantile classes. The value of the legal-tender notes was measured in it from day to day. The gold imperial was in circulation as commercial money. Its normal value was 10 rubles 30 kopecks in paper. When the price of silver had declined so that 10 rubles 30 kopecks of paper would buy silver bullion which would yield a greater sum, by coining at the mint, the government suspended the free coinage of that metal and set its face toward the gold stand-

ard. Various steps were taken to this end at different times during the succeeding twenty-three years. They culminated in the law of June 7 (19), 1899, by which the gold standard was definitely adopted.

It was decreed that the ratio between the old currency ruble and the new gold ruble should be as $1\frac{1}{2}$ to 1, and that this rating should apply to all past contracts, public and private. A person owing 150 rubles could pay the debt with 100 rubles after the resumption of specie payments, but these would be gold rubles. This act was severely criticized, as though it were equivalent to repudiation of one third of all debts. On the contrary, if the single silver standard had remained in force, all debts would have been scaled down 50 per cent or more, instead of $33\frac{1}{3}$ per cent. A debt of 150 rubles could in that case have been paid with 75 gold rubles or less.

The gold ruble was made the monetary unit of the empire, containing 17.424 doli (about 12 grains) of fine gold. The smallest gold coin, however, was the five-ruble piece, containing 87.12 doli (59.7413 grains) of fine gold. Gold pieces of 5, $7\frac{1}{2}$, 10, and 15 rubles were to be struck. The imperial, of 15 rubles, was equal to $7.718. All gold brought to the mint either by the government or by private individuals was to be coined. The standard of fineness was nine tenths. Gold coins were legal tender without limit. Silver and copper were coined only for the government. Silver rubles and half and quarter rubles were legal tender for 25 rubles in one payment. Smaller silver and copper coins were legal tender for 3 rubles only. The ruble was divided into 100 kopecks. The smallest silver coin was 5 kopecks.

Mexico adopted the gold standard in 1906.

International Monetary Conferences. During the last quarter of the nineteenth century three international conferences were held, the declared object of whose promoters was to secure the adoption of bimetallism, or the double standard, by the nations participating. They were held in the years 1878, 1881, and 1892 — the first and second at Paris, the third at Brussels. The first and the third were called at the instance of the United States; the second, at the instance of the United States and France jointly.

All of them failed to agree upon any plan to accomplish the object sought. Notwithstanding these repeated failures, President McKinley, in 1897, appointed a commission of three persons, of whom Senator Wolcott of Colorado was the chief, to visit Europe and endeavor to promote international bimetallism in some form. The commissioners met with some encouragement in France. They then went to England and sought to secure the aid of the Salisbury ministry, who at first seemed inclined to cooperate; but when facts of the negotiation became generally known, the business community both in the United Kingdom and in India protested so strongly against it that the whole project was abandoned.

The first essential of an international agreement would be to express in figures the legal ratio between the two metals; yet none of the conferences ever progressed so far as to discuss that subject. Any considerable deviation of the agreed ratio from the market ratio would bring powerful countervailing forces into play. If gold, for example, were artificially cheapened, less gold would be mined and greater quantities would be used in the arts, while the contrary effects would be felt in the production and consumption of silver.

Obstacles to Bimetallism. The great obstacle to international bimetallism lies in the preference of mankind for gold money over silver money. If this preference did not exist, no international conference would be needed in order to put silver on an equal footing with gold. Even the most elaborate system of exchanges through banks and clearinghouses leaves a residuum of payments to be made by the transfer of metal, and here the question of weight becomes decisive. A bank which has to receive $1,000,000 of metal will always prefer, say, 4000 pounds of gold rather than 140,000 pounds of silver. It can afford to pay a premium for gold equal to the difference in the cost of handling and storing the two masses. The earliest sign of a premium on gold, after a bimetallic agreement had been made, would render the agreement itself inoperative.

The Gold Standard since 1914

Before the beginning of the World War in 1914 the major countries of the world were, so it was assumed, anchored safely to the gold standard. Many economists believed that the problem of the monetary standard had finally been settled. After a long period of struggling with silver, bimetallism, and gold the world had definitely cast in its lot with gold.

The spectacular events of the last twenty years have shown how naïve it was to regard monetary standards as no longer a question of debate. In many universities less and less attention was being paid to the history and theory of bimetallism. But in 1933, 1934, and 1935 bimetallism was again an issue of paramount importance, as it had been in the eighteen-nineties. When the Gold Standard Act was passed by Congress in 1900, it was stated frequently that bimetallism and "16 to 1" were dead and buried. William Jennings Bryan, the great political sponsor of a return to free coinage of silver, had been decisively defeated in his campaigns for the presidency, and free silver had apparently passed from the scene.[1]

During the World War all the warring nations and the majority of the neutral countries abandoned the gold standard. For a dozen years after 1914 most of the world was on an inconvertible paper-money basis. One comment must be made at this point which may seem to be superfluous. A number of people believe that if a country abandons gold it automatically reverts to a silver standard. This, of course, is not true; the standard in most countries during the war and for some years following was a *paper* standard — the paper pound, the paper mark, the paper franc, etc.

[1] One economist did not succumb to the idea that bimetallism was a defunct issue. The undersigned was an undergraduate student in the classes of Professor E. W. Kemmerer in 1915. In notes taken during a lecture on bimetallism appears this statement of Professor Kemmerer's: "It is widely believed that bimetallism is no longer a question of economic importance, but if we again experience a period of rapidly falling prices I should not be surprised to see bimetallism again become a major issue." — C. S. T.

The Return to Gold. Soon after it entered the war in 1917, the United States placed an embargo on the exportation of gold and stopped free redemption of its currency in that metal. Gold could be secured in emergencies where the evidence of great necessity was clear, but it was made a test of patriotism not to ask for gold. The United States therefore was for a time practically off the gold standard. When, in 1919, it removed the embargo on gold exports and resumed the free redemption of its currency in gold, it was definitely back on gold. Lithuania and Latvia adopted gold in 1922. Germany, after its disastrous experience with paper-money inflation from 1920 to 1923, returned to a form of the gold standard in 1924 under the provisions of the Dawes Plan for reparation payments. Sweden and Hungary also returned in 1924. England, Holland, and Austria followed in 1925; Finland and Belgium, in 1926; Denmark, Czechoslovakia, Poland, and Italy, in 1927; France and Norway, in 1928.

Many of these countries, during their inconvertible paper-money regimes, had experiences of a tragic nature.[1] The German inflation period (described by Professor Frank D. Graham as "hyperinflation") was the worst. So many paper marks had been issued that in November, 1923, it took four trillion of them to buy one American dollar. Previously a mark had been worth 23.8 cents in American money. The rise in prices in Germany was so great that many persons who had retired on fixed incomes from investments and pensions found late in 1923 that their entire yearly income would not buy food for one meal.

Austria, Poland, and a number of other central-European countries underwent similar experiences, though not to such a serious degree. In 1925 it looked as though France would follow the path of Germany. The franc declined in the foreign-exchange market from a prewar value of 19.3 cents in American money to approximately 2 cents. Only by a heroic struggle under the Poincaré government, which increased taxes, reduced expenditures, and balanced the budget, was the franc finally stabilized in 1926. It was necessary, however, to reduce the gold content

[1] These have been graphically portrayed by John Parke Young in *European Currency and Finance* (Government Printing Office, Washington, D.C.).

of the franc to an equivalent of 3.92 cents. Inflation in Belgium and Italy had likewise been so great that they also devalued, Belgium creating a new unit, the belga, equal to 13.9 cents, and Italy reducing the lira to 5.26 cents. The Belgian and Italian units had, before the war, both been worth the same as the French, 19.3 cents. Had not Belgium established a new unit, her franc would have been worth only about 2 cents. England had suffered only a slight depreciation (the pound reached $3.19 early in 1920) and returned to the old par of $4.8665 in 1925. Most of her dominions soon followed her to the gold-bullion standard.

After such suffering it is not to be wondered that these countries felt the gold standard offered a safer haven than paper. John Maynard Keynes, the well-known British economist, had favored a return to gold in 1922, but suddenly reversed his position and appeared in 1923 as an ardent advocate of a managed paper-currency standard, managed for the purpose of stabilizing prices. His advice, however, was not heeded. In one respect it should have been. He argued that if England chose to return to gold, it should not attempt to regain the old figure of $4.8665 for the pound sterling but should devalue.

It is now generally agreed by most economists that the long depression experienced by England following the war was due largely to the rise in the value of the pound to the prewar par. This made it difficult for foreign countries to buy as much from England as formerly, and some of her most important export industries suffered. Had England been able to lower her costs of production sufficiently, in order to quote lower prices, she might have been able to offset the rise in the price foreigners had to pay for the pound. But this she seemed unable to do.

The Gold Standard again Abandoned. It is a sad commentary upon the ability of the human race to manage its monetary standards with intelligence that, within three years of the time a return to gold was, it was thought, successfully accomplished, many of the leading nations were again forced to abandon it and revert to paper standards. We are not now passing judgment upon gold as a monetary standard. We are not claiming here that the gold

standard is unworkable and must be superseded by another. Some very able economists hold this view. Others claim that the trouble is not with gold, that the gold standard can operate successfully only under certain specified conditions, and that the world during the confused postwar years was not willing to take the necessary steps to insure the successful functioning of that standard. They further argue that it would have been impossible for any standard to stand up under the stress and strain of a depression as severe as that which began in 1929. This has been discussed at length in the preceding chapter.

By midsummer of 1931 it began to appear as if the bottom of the depression had been reached. The rapid downward descent seemed to have stopped, and many authorities were gradually becoming convinced that the next movement would be upward. How far international political influences, especially the financial adventures of France in central and eastern Europe, were responsible for what happened next is hard to say. Whether France was attempting to create a financial situation which would force England to line up again with her, politically, and thus brought on the crisis of 1931, cannot be proved until the truth is revealed. Certain facts seem to be clear, and we can relate them.

The German Situation. By 1929 it was realized that the Dawes Plan needed revision. The burden of reparation payments placed upon Germany was heavier than she could pay with ease. So long as she could borrow substantial sums abroad, as she did from 1925 to 1928, the transfer of these payments caused little difficulty, because these loans created the necessary supply of foreign exchange. By 1928 Germany had recovered, economically, to an amazing degree. In 1929 her ability to borrow abroad began to diminish. A large portion of the loans had been advanced by the United States, but with the apparent chance for greater earnings in the stock market Americans were not so eager to lend abroad. This may have been the blow that knocked the props from under world prosperity.

In any case, the Young Plan superseded the Dawes Plan, and Germany's payments were lessened. Had the United States been willing to reduce the war debts, the money it lent to the Allies

during the war, Germany's reparation payments would probably have been reduced still more. But the United States was obdurate and refused to live up to its responsibilities as a creditor nation. It demanded payment, but kept its tariff high, so that the ability of foreign countries to pay was decreased. Had it understood better just how international debts are paid, much of the subsequent difficulty might have been avoided. Such payments are accomplished by shipping commodities, performing services, or shipping gold.

The United States had accumulated a billion dollars' worth of gold during the war and over another billion in the years following. During the first two years of the depression it added to its stock, until in the late summer of 1931 it had almost five billion dollars of gold, the largest amount ever accumulated by any one country in the history of the world. France accumulated approximately three billion. Had the United States been more willing to receive payments in goods of its war loans and of interest on its subsequent private loans of over ten billions, this maldistribution of the world's gold supply might not have occurred. This maldistribution, itself caused by one-sided balances of payments, was partly responsible for the world collapse of 1929.

The International Financial Crisis of 1931. The severe international banking and financial crisis of 1931 was ushered in by the failure in May of the Credit-Anstalt, the famous Rothschild-controlled bank in Vienna. The banking panic spread shortly from Vienna to Berlin, resulting in the failure of the Darmstaedter und National Bank. This bank, called for short the Danat Bank, was one of the four large German "D" banks (whose names began with D, such as the Dresdner, the Deutsche, the Disconto-Gesellschaft). A bank holiday was declared similar to that of the United States in March, 1933. International confidence thus received a tremendous shock, and panic swept from one financial center to another, with disastrous results. President Hoover declared a moratorium on war-debt payments in a frantic gesture to help the situation.

It was rumored that the Bank of England had lost heavily in the failure of the Credit-Anstalt. It was also rumored that Eng-

land had advanced money to this bank in opposition to the wishes of France, since France desired to penalize Austria for the attempt to form a customs union with Germany earlier in 1931. Whether France deliberately provoked the crisis in Vienna and Berlin by withdrawing funds from these centers, as a mode of punishment for announcing the *Anschluss* (the customs-union agreement) without consulting her, cannot be definitely decided. The accusation has, however, been frequently made. Whatever the source or origin of the panic, it next swept from Berlin to London.

Ever since England's return to gold in 1925 the Bank of England had maintained a slender gold reserve equivalent to about $600,000,000. Foreign banks and financial institutions, in 1931, had on deposit in London sums considerably in excess of this. With suspicion aroused as to England's financial condition and her ability to maintain the gold standard, these deposits began to be hurriedly withdrawn. What actually happened was an international run on the Bank of England. To meet these demands England drew down her foreign balances, and borrowed $650,000,000 from the United States and France. It was soon exhausted. The Bank of England paid out in all nearly $1,000,000,000; still the panic did not subside. Finally, in September, 1931, to avoid the loss of more gold, the Bank of England ceased paying it out, and again England was off the gold standard. Most of the British Empire followed her (Australia having already gone off in 1930), and shortly the Scandinavian countries and a number of South American countries joined what became known as the paper-sterling group (the sterling area).

Those who assert that the crisis was deliberately provoked by France, without realizing how far it would go, should remember how quickly France came to the aid of the Bank of England at the height of the crisis by sharing with the United States in the $650,000,000 advanced to stem the tide. With England off gold the pound depreciated in the foreign-exchange markets. The Bank of France had built up large deposits in the Bank of England at $4.8665 to the pound. The value of these deposits promptly declined, so that if they were withdrawn they would be converted into a much smaller sum in francs than it had cost to create them.

The depreciation suffered was so large that the Bank of France lost an amount equal approximately to its entire capital and surplus. The government of France was forced to come to the rescue of the bank, temporarily, and advance it enough to restore its impaired capital. Does it seem logical, therefore, to accuse France of willfully creating such a situation?

Trouble was not yet over. England having been driven from gold, it was whispered in international financial circles that the United States would be next and that foreign money on deposit there should be withdrawn. How that rumor began will probably never be known, but it was effective. A run developed on the United States, and nearly $400,000,000 was exported from the country in the month of October. Never had such a sudden flight of gold from the United States been experienced before. It stopped temporarily in November, but not until another severe shock had been given to the delicate financial and credit structure not only of the United States but of other countries also. The whole episode reveals how panicky the situation had become, with short-time capital, deposits, and gold jumping like grasshoppers from one world banking center to another.

The Crisis in the United States. The hoarding of currency, which had already begun in the United States, promptly increased as depositors became more and more frightened. Over five thousand American banks had failed between 1920 and 1929, even before the depression began. Part of these failures were due to mismanagement, some to dishonesty; many came because too many banks had been created (more than the communities could support). A large number of banks had advanced excessive loans on farm mortgages before and during the war, so that when agricultural prices declined sharply in 1921, and stayed down, many of these loans could not be repaid. What happened was somewhat in the nature of the collapse of an economic system based largely on agriculture. American agriculture shared but little in the widely heralded industrial prosperity of the later nineteen-twenties.

The collapse of the Florida land boom in 1926 caused additional havoc. The failure of the Manley-Whitham chain banking system

in Georgia in that year carried down a hundred and twenty-five banks in one group. The industrial centers paid little attention to the fact that in 1926 nearly a thousand American banks closed their doors. This was a year which was supposed to have been unusually prosperous!

In 1930 the industrial centers began to notice the first signs of the oncoming general breakdown of the American banking system. In that year over thirteen hundred and fifty banks closed their doors. Currency hoarding began in earnest in 1931 as depositors became frightened, money in circulation passing the five-billion-dollar mark in August. Part of this increase was, however, due to the fact that bank failures were compelling more and more communities to go on a cash basis. After the fear engendered by the world crisis in the late summer of 1931 the circulation figure rose by half a billion dollars. Nearly twenty-three hundred banks closed during the year. A slight respite came in 1932, from the point of view of hoarding, there being only a slight increase during the year. Bank failures in 1932 fell to fourteen hundred and fifty.

The departure of England, and of other countries who followed her, from gold stopped the perilous downward spiral of deflation in the majority of those countries. But the United States and other countries remaining on gold experienced a gradual deepening of the depression. Early in 1932 withdrawal by foreign banks of their deposits in American banks started another extensive outward flow of gold. As a result, from January to July, over $600,000,000 of that metal was lost. In the eight months following England's abandonment of gold, over $1,000,000,000 in gold had left the country. Part of this flight was caused by the fear of American citizens who were moving funds to countries where they thought their money would be safe. Of this sum over $700,000,000 went to France. Of the remainder approximately $100,000,000 went to Belgium, $135,000,000 to Switzerland, and $150,000,000 to Holland.

Worry began to develop over the thought that the free gold in the Federal reserve banks was insufficient. Consequently the Glass-Steagall Act of February, 1932, permitted the substitution

of government bonds for commercial paper behind Federal reserve notes. The government also, through the Federal reserve banks, launched an extensive government bond-buying campaign, "open-market operations." By midsummer of 1932 considerable fear began to be felt in responsible circles as to whether or not the United States could remain on gold. The tide, however, turned, and in the last four months of 1932 and January, 1933, it regained nearly $300,000,000. It should be remembered that all these figures are given on the basis of the old price of gold, $20.67 an ounce. The new price, established in January, 1934, is $35 an ounce; therefore on the new basis all the quoted figures would be larger by 70 per cent.

The United States Suspends Gold Payments. Late in 1932 the banking crisis had become so acute in many parts of the United States that partial holidays were declared in several Western states. The continued downward movement of prices and business had wrecked a large portion of the value of the assets behind bank deposits. As banks closed and receivers were appointed to liquidate their assets, this threw on the market large amounts of bonds and mortgages held in the portfolios of the closed banks. Naturally the forced sale of these assets drove down the value or quoted prices of similar securities held by the banks remaining open. In turn many of these were forced to close, because the depreciation of their assets rendered them insolvent; that is, they could not pay out their deposits on demand.

The Reconstruction Finance Corporation was created early in 1932, partly to aid the banks which were in difficulties. Large advances were made to them, which kept many of them open, but so much collateral was required in a number of cases that they eventually found their position weakened still further. Members of the Federal Reserve System could borrow from their regional Federal reserve bank if they had collateral which was eligible for such a purpose. But there was a scarcity of eligible paper. The continued decline of real-estate values was also playing havoc with those banks which had lent heavily upon this type of security. The attempt to force excess reserves upon member banks by means of the daring open-market bond-buying campaign of the

Federal reserve banks was unable to stop the oncoming debacle, although it may have delayed it.

Matters were brought to a head by serious banking difficulties in Detroit. On February 14, 1933, the governor of Michigan proclaimed a state-wide bank holiday. Eleven days later the governor of Maryland did likewise. Other governors shortly followed their example, until by the end of the month a large portion of the country either had no banks open or was doing a banking business upon a narrowly restricted basis. The tremendous increase in currency-hoarding was making a breakdown inevitable. During the ten days preceding March 4 over $1,500,000,000 in currency was paid out by the Federal reserve banks, over half of it on March 2 and 3. The ratio of gold to notes and deposits in the Federal reserve banks was dropping to the legal minimum; in the Federal Reserve Bank of New York it went below this minimum. On March 4 Governor Lehman declared a holiday in New York State, and two days later President Roosevelt proclaimed a national holiday for the entire country, forbidding at the same time the exportation of gold and the paying out of gold by the government or the banks. We therefore actually dropped the gold standard on March 6, although it was not officially announced that we had done so until April 19.

Between March 6 and April 19 the dollar remained relatively stable (probably because of exchange control), but on the latter date it began to depreciate rapidly in the foreign-exchange markets. Speculation, which had been rife in the exchange markets since the fall of 1931, now promptly began to affect the American dollar. Owing to it and other factors, by October the franc (which was still on a gold basis) had risen from 3.92 cents to 5.8 cents. This meant that, in comparison with foreign gold currencies, the dollar had depreciated by almost a third. The pound sterling rose from approximately $3.45 to $4.60 during the same period.

Monetary Legislation of 1933–1934. After the banks had been opened under the provisions of the Emergency Banking Act of March 9, 1933, the demand became insistent that certain steps should be taken in the monetary field to cure the depression. The

silver group was calling for a return to bimetallism. The voice of the Reverend Father Charles E. Coughlin of Detroit was heard every Sunday afternoon by hundreds of thousands of radio listeners. His bitter criticism of the gold standard and his advocacy of broadening the monetary base to include both gold and silver had a profound effect. There was enough truth in his comments to give a stimulus to the movement to revise our monetary system. The addresses of Father Coughlin were reminiscent of the speeches of William Jennings Bryan nearly forty years before. It became evident that, for political reasons, some action must be taken.

The Farm Relief Act, which created the Agricultural Adjustment Administration, became law on May 12, 1933. To it Senator Thomas of Oklahoma had successfully added certain provisions which have since become famous as the Thomas Amendments. Fortunately, however, instead of making these monetary provisions mandatory, the act gave to President Roosevelt large discretionary powers. It was due to the keen political sense of the President that such wide authority was placed in his hands instead of his being forced to take definitely prescribed steps. This measure has come to be termed the Inflation Act of 1933.

1. The Thomas Amendments gave to the President the power to urge the Federal reserve banks to buy government bonds to an amount not exceeding $3,000,000,000. This was merely making use of the existing right of the reserve banks to buy such bonds, a right conferred by the open-market-operations clause of the Federal Reserve Act. The reason for this section of the Thomas Amendments was that it was believed that this buying would result in an increase in the reserves held by the member banks in the Federal reserve banks. When reserve banks bought bonds from member banks, the latter would be paid by receiving a deposit to their credit in the reserve banks. As the bond-buying continued, it was expected that the deposits of the member banks in the reserve banks would become so large that the former would endeavor to increase their loans to industry, so that these deposits would not be idle. The reserve banks do not pay interest upon such deposits. In other words, the policy was to force surplus reserve deposits upon the member banks in the hope that these banks would be

impelled to expand their loans to customers. This was deemed to be necessary to bring about economic recovery.

There was nothing revolutionary about this. The reserve banks had engaged in such open-market operations for years, buying at some times and selling at others. Already the policy had been extensively followed from February to August in 1932, after the reserve banks had been given authority, under the Glass-Steagall Act of February 27, 1932, to include government bonds among the legal reserves behind Federal reserve notes to an amount not exceeding 60 per cent of such reserves. Between these months in 1932 the reserve banks bought approximately $700,000,000 of government bonds. The surplus reserves of the member banks soon increased by several hundred million dollars. Whether this was responsible for the stopping of deflation and the slight recovery in the fall of 1932 is a debatable point. Most of these surplus reserves disappeared quickly in the panic days of early 1933, when member banks were forced to withdraw these deposits in the form of currency to meet the frantic demands of their frightened depositors.

The Thomas Amendments therefore merely gave the President the right to urge strongly upon the reserve banks another bond-buying campaign similar to but much more extensive than that of 1932. As a result the reserve banks again began to buy bonds and continued to do so during the remainder of 1933 and early 1934. The surplus reserves of the member banks mounted rapidly, until by the early summer of 1934 they approached the spectacular figure of almost $2,000,000,000. Commercial bank loans, however, did not increase. Commercial bank investments showed a steady gain, since the member banks continued to buy government bonds themselves because of their hesitancy in placing funds elsewhere and the relative scarcity of other high-grade investments. By the middle of 1934 the reserve banks held $2,000,000,000 in government bonds, and the member banks of the leading ninety cities had one third of all their loans and investments in government bonds. By early 1935, 50 per cent of the national government's debt was held by the banks.

2. The second provision of the Thomas Amendments was that if for some reason the President was unable to secure the co-

operation of the reserve banks in bond-buying he could authorize the issue of $3,000,000,000 in United States notes (greenbacks) for the purpose of purchasing such bonds. Although strong pressure has been brought to bear upon the President, he has not yet exercised his authority under this clause.

3. The third provision authorized the President to devalue the American gold dollar by reducing its gold content by not more than 50 per cent. On January 30, 1934, after the gold-buying program described in the previous chapter, this power was exercised. The gold content of the dollar was reduced from 23.22 to 13.71 fine grains. The price of gold was thereupon set at $35 an ounce, instead of $20.67. The President could have raised the price to $41.34 and reduced the gold content of the dollar to 11.61 grains.

4. The fourth provision conferred upon the President the power to place the United States upon a double (bimetallic) standard of gold and silver. He could provide for the free and unlimited coinage of both gold and silver at any mint ratio deemed proper. To grant such broad authority to the President is indeed unusual in peace times, but this was in line with much of the New Deal legislation. When it is realized that the President, during the life of this act, can suddenly declare that we shall again adopt bimetallism, it can be seen that the group favoring bimetallism had indeed obtained widespread political support. It is, however, doubtful whether the majority of the Congressmen and Senators realized just what the Thomas Amendments might lead to. Possibly they believed that the safest policy was to place the authority in the hands of the President, hoping that he might never use it.

5. The final section permitted the payment of a portion of the war debts (up to $200,000,000) in silver. This was utilized by England and several other nations which made small token payments in 1933.

On December 21, 1933, President Roosevelt issued a proclamation ordering the purchase of newly-mined silver (really opening the mints to the coinage of silver with a 50 per cent seigniorage charge) at 64½ cents an ounce to an amount of not more than 24,421,410 fine ounces annually. On June 19, 1934, the Silver

Purchase Act authorizing the purchase of silver until silver stocks reached 25 per cent of the country's metallic reserves was passed. Under the authorization of this act President Roosevelt issued a proclamation on August 9, 1934, nationalizing all silver stocks except coins. Those turning in such silver were to receive 50.01 cents an ounce. Up to the first of March, 1935, over 112,400,000 fine ounces had been so turned in.

The Gold Reserve Act of 1934 is discussed elsewhere in this chapter and in Chapter V.

Gold-buying and Gold Devaluation.[1] In October, 1933, came the news that the government was to enter upon a definite policy of buying gold at a higher price than $20.67 an ounce. When England departed from gold, she had permitted the establishment of a free market for gold in London. In this market gold could be bought and sold like any other commodity for paper pounds. By comparing the price of gold in London with the price of the pound sterling in terms of the American dollar, a price of gold in terms of American currency could be determined. We had established no such market in this country, since all gold was ordered to be turned in to the United States Treasury.

In a radio address, on the evening of October 22, President Roosevelt announced that he was going to establish a market for gold and buy newly mined gold through the Reconstruction Finance Corporation at a price to be fixed from time to time. In this address he said:

> I repeat what I have said on many occasions, that ever since last March the definite policy of the government has been to restore commodity price levels. The object has been the attainment of such a level as will enable agriculture and industry once more to give work to the unemployed. It has been to make possible the payment of public and private debts more nearly at the price level at which they were incurred. It has been gradually to restore a balance in the price structure so that farmers may exchange their products for the products of industry on a fairer exchange basis. It has been and is also the purpose to prevent prices from rising beyond the point necessary to attain these ends. . . .

[1] See the section in the previous chapter on the gold-purchase program, p. 107.

No one who considers the plain facts of our situation believes that commodity prices, especially agricultural prices, are high enough yet.

Some people are putting the cart before the horse. They want a permanent revaluation of the dollar first. It is the government's policy to restore the price level first. I would not know, and no one else can tell, just what the permanent valuation of the dollar will be. To guess at a permanent gold valuation now would certainly require later changes caused by later facts.

When we have restored the price level, we shall seek to establish and maintain a dollar which will not change its purchasing and debt-paying power during the succeeding generation. I said that in my message to the American delegation in London last July. And I say it now once more.

Because of conditions in this country and because of events beyond our control in other parts of the world, it becomes increasingly important to develop and apply the further measures which may be necessary from time to time to control the gold value of our own dollar at home.

Our dollar is now altogether too greatly influenced by the accidents of international trade, by the internal policies of other nations, and by political disturbance in other continents. Therefore the United States must take firmly in its own hands the control of the gold value of our dollar. This is necessary in order to prevent dollar disturbances from swinging us away from our ultimate goal, namely, the continued recovery of our commodity prices.

The President then went on to describe the particular method by which he hoped to bring about the aims outlined above. He continued:

As a further effective means to this end, I am going to establish a government market for gold in the United States. Therefore, under the clearly defined authority of existing law, I am authorizing the Reconstruction Finance Corporation to buy gold newly mined in the United States at prices to be determined from time to time after consultation with the Secretary of the Treasury and the President. Whenever necessary to the end in view, we shall also buy or sell gold in the world market.

My aim in taking this step is to establish and maintain continuous control.

This is a policy and not an expedient.

It is not to be used merely to offset a temporary fall in prices. We are thus continuing to move towards a managed currency.

On October 24, the day before the gold-buying began, the price of gold in London, estimated on the basis previously described, was $29.74 an ounce. This meant that it took $29.74 in American paper dollars to buy enough British pounds sterling to purchase an ounce of gold in London. The first price fixed on October 25 by the Reconstruction Finance Corporation was $31.36.

The official prices fixed on successive dates were as follows:

October 26	$31.54
October 27	31.76
October 28	31.82
October 30	31.96
October 31	32.12
November 1	32.26
November 2	32.36
November 3	32.57

By November 10 the price was $33.20; by the 14th, $33.56. During this period the price was not changed every day. On November 21 the price was $33.76; on the 28th, $33.85; and on the 29th it was set at $33.93. Between December 1 and 16 it was steady at $34.01; from December 18 to January 15 it was unchanged at $34.06. On January 16 the price was $34.45, where it remained until January 30, when the dollar was definitely devalued and the new price fixed at $35 an ounce.

In lending his support to gold buying in this manner the President revealed that he had been won over to the theory that the prices of commodities depended upon the price of gold. The most prominent sponsor of such a theory in this country in recent years has been Professor Irving Fisher of Yale. More recently it has been expounded by Professors George F. Warren and F. A. Pearson of the department of agricultural economics at Cornell, the basis of their argument being developed in their book *Prices*.

We cannot here go at great length into a discussion of this hypothesis. We will merely summarize it, since we have already considered it in the preceding chapter. According to this doctrine, since a rise in prices in a gold-standard country means a decline in the purchasing power of gold, the purchasing power of money can be held within narrow limits by varying the gold content of

the basic monetary unit. For example, if prices fall, gold is rising in value, and the actual gold content of the dollar should be reduced. If prices rise, gold is falling in value, and more gold must be added to the dollar content. This is called the compensated, or commodity, dollar, which has already been discussed.

A heated controversy has been waged over the validity of this doctrine. We will not dwell upon it further at this point; it is an oversimplified explanation of price changes except, perhaps, for certain basic commodities and raw materials with an international market. Warren and Pearson assert, however, that the presence of an international market is not necessary.

The great fall of prices after 1929 gave rise to a widespread belief that recovery could not be expected until prices again rose. At the bottom of the price decline in 1932 a study of an average of a large number of wholesale prices revealed that they were approximately 50 per cent lower than in 1929. This decline, it was believed, made it impossible to pay old debts which had been contracted at the high price level. Low prices meant low incomes, and low incomes meant that the debt burden had become unsupportable. Therefore prices must, it was argued, be restored to a figure which would approximate the 1926 level, the level at which, it was estimated, most debts had been contracted.

It may be doubted whether the President would have been won over to this view had it not been for its active sponsorship by the Committee for the Nation to Restore Prices and Purchasing Power. This committee was headed by a group of leading businessmen representing both industry and agriculture. Among the most prominent were Frank A. Vanderlip, former president of the National City Bank of New York, General R. E. Wood and Mr. Lessing Rosenwald of Sears-Roebuck, Mr. Vincent Bendix of Bendix-Aviation, and Mr. James H. Rand, Jr., of Remington-Rand. This group became extremely active late in 1932 and claimed that the continuance of the depression was due to the low price of gold. Therefore they demanded that the price of gold must be raised at once to approximately $36. Since devaluation was accomplished in January, 1934, they have argued that the price of gold was set at too low a figure, because by that time other

countries had raised the price of gold so much more. Therefore, later in 1934, the committee argued that the price of gold should be raised to the full legal limit, $41.34. They assert that the sudden decline in business following the spectacular recovery in the spring and early summer of 1933 was stopped by the inauguration of the gold-buying policy in October, and that recovery followed until we returned to gold at too low a price early in 1934. The decline from early 1934 to late in that year was laid to this fact.[1]

The sponsors of the gold-buying program state that had it not been for the NRA, the AAA, and other features of the New Deal, the universal verdict would have been that the gold-price-raising policy was successful. They assert that other phases of the New Deal have prevented the United States from enjoying the full benefits of the rise in the price of gold. On this point, however, no one can speak with assurance, since so many factors are involved.

There is now a growing feeling among economists to the effect that it was not necessary to abandon the gold standard in 1933, that devaluation and the abrogation by Congress of the gold clause in bonds and other contracts were unjustifiable. But economists have not always agreed upon monetary and banking policies among themselves. Therefore it is impossible to blame the government for accepting the conclusions of one particular group which had a definite program. To return now to the old mint par and reduce the price of gold again to $20.67 an ounce does not seem advisable, although many economists are advocating it. To do so might lead to another catastrophic price decline and a lengthening of the depression. The risk involved would be too great.

[1] In personal conversation with the undersigned, Professor Warren stated that the launching of the gold-buying program in October, 1933, was directly due to the rapid decline in business activity from the peak reached in June of that year. — C. S. T.

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CHAPTER VII

BANK NOTES

A bank note is a promise to pay a certain sum of money; it is issued by a bank and is generally accepted as if it actually were money. As a matter of fact, in most countries it usually is regarded as money. It differs from most other promissory notes in that it does not bear interest and is transferred by delivery, without endorsement. In the past, however, some bank notes did bear interest and pass by endorsement. Some governments have made bank notes full legal tender for all debts, public and private; others give them only limited legal-tender qualities — that is, they are legal tender for certain purposes only. In the United States they have been full legal tender only since June 5, 1933. In some countries practically all the paper money in circulation is notes issued by commercial or central banks. In France, for example, the paper money is notes of the Bank of France, the central bank of that country. In other countries, such as the United States, bank notes are only one form of paper money outstanding. In Canada, before the act of July 3, 1934, establishing the Bank of Canada, the new central bank, paper money was of two kinds: (1) Dominion notes issued by the government and (2) notes issued by the ten chartered banks (the large commercial banks with many nation-wide branches). In England it is Bank of England notes which form the chief type of paper money.

Some years ago it was customary to say that a bank performed three functions: (1) to discount notes, drafts, and bills of exchange, (2) to receive deposits payable on demand or after a specified time, (3) to issue notes. It was, briefly, an institution with the three functions discount, deposit, and issue. How far modern banks have enlarged these functions will be described

later. For a long period it was believed that the right of note issue was a necessary power of a bank, that banking could not be profitable otherwise. This was true before deposit banking had expanded to its present scope in English-speaking countries. It was thought that banks must be permitted to issue their own notes more or less freely, because when loans were granted the proceeds were generally taken out in the form of notes. Even if the borrower left the proceeds of the loan temporarily on deposit, when he wished to pay his bills he withdrew his deposit in notes.

Checking accounts, now used on a wide scale, are a comparatively recent development. On the continent of Europe today they are not universal. When a law taxing notes of American state banks 10 per cent was passed in 1865, the majority of the state banks feared that they could no longer conduct banking profitably and transferred to national charters or liquidated. With the rapid development of the use of the check after 1870, many state institutions again began to be chartered. One reason why checks are so widely used in England and the United States is that certain limitations are placed on note issue. The practice of transferring bank deposits by check was therefore an innovation of great importance.

Keynes on Bank Notes. In his celebrated book *A Treatise on Money*, published in 1930, John Maynard Keynes traces four stages in the development of bank notes.[1] In the first stage, he says, deposits held in a bank by an individual were really treated as an investment, and when money was needed it was withdrawn in the form of notes. In the second stage deposits had come partly to be a means of holding cash until needed, when they were turned into notes. When the third stage is reached, payments for business purposes are made largely by checks on deposits; notes are still used for wage payments and petty-cash holdings. In the fourth and final stage a large part of wage payments are made by check, and notes are used only for pocket cash and current cash purchases.

European countries on the Continent, says Mr. Keynes, are still only somewhere between the second and third stages. Great

[1] *A Treatise on Money*, Vol. I, p. 40. Harcourt, Brace and Company.

Britain is in the third stage, but is apparently broadening its check payments and diminishing its note payments, so that it can almost be said to be approaching the fourth stage. The United States is, he concludes, well advanced toward the fourth and final stage. How soon Continental countries will progress in this direction is difficult to say, but conservatism, tradition, and custom are such that change will probably be slow.[1]

Origin of Bank Notes. The modern bank note is probably an outgrowth of the business promissory note and the warehouse receipts for gold and silver issued by the British goldsmith bankers in the seventeenth century. When money was left with the goldsmiths for safekeeping, they would give to the depositor a promise to repay an equal amount on demand. One such promise to pay follows:

November 28, 1684

I promise to pay unto ye Rt. honble. ye Lord North & Gray or bearer ninety pounds at demand.

For Mr. Francis Child & myself
Jno. Rogers

[1] The undersigned had an embarrassing experience while serving in France with the American army during the war. He was stationed at one time in Châteauneuf-sur-Cher, in central France, and was custodian of the regimental mess fund. Purchases of food were frequently made at the open-air market in the public square, Bank of France notes being used for this purpose. Bank of France notes come in different sizes, the smallest denomination at that time being only about one half the size of our present one-dollar bill, but as the denomination grows, the size of the note grows even more rapidly to astonishing proportions. Finally, becoming tired of carrying such a bale of paper around with him, he decided to deposit the notes in a bank and draw checks to make his payments. Since there was no branch of one of the great French banks in Châteauneuf, he climbed aboard a train and, after enjoying the beautiful French countryside for two hours from the compartment window, arrived in Bourges. There he promptly made his way to a branch of the Société Général.

He approached a dignified official and, after some language difficulty, managed to convey the notion that he wished to make a deposit. The process turned out to be a somewhat lengthy one, but finally the notes were safely deposited, and he was given a receipt. Then he asked for a checkbook, which required another lengthy explanation. He was finally asked what he wanted one for, and the bank officials made it clear, politely but emphatically, that it was a highly extraordinary request. He replied that he wished to write

The goldsmith bankers discovered that it was not necessary to keep the full amount of the money deposited with them for safekeeping on hand at all times, and they began to lend out a portion of it at interest. Originally they charged the depositors for safeguarding their funds, but gradually they began to pay interest to attract funds. The principle of partial reserve was soon developed, because only a small proportion of ready cash had to be kept on hand to meet current demands, and modern banking was well under way.

Some of the famous banks in Europe in the sixteenth and seventeenth centuries, such as the Bank of Venice (1587) and the Bank of Amsterdam (1609), also issued warehouse receipts for coin. But the first modern bank note — a bank's promise to pay, not fully covered by a specie reserve — was issued by the Bank of Sweden in 1656. When the Bank of England was chartered in 1694, it was required to turn all its paid-in capital (about $6,000,000) over to King William, who needed money for his militaristic adventures. In return it was given the king's promissory note and upon this as security was permitted to issue its own

checks to make some purchases. After the amazement of the officials moderated somewhat, they informed him that it would be useless to write checks, since no one would take them. Besides, he was told, he might write checks to a larger amount than the money he had in the bank. If he wanted money, all he had to do was to come to the bank and get it; that was what the French did. Since it did not seem feasible to spend a large part of his time on the train traveling to and from Bourges, he then told the officials he had better draw it all out again, which he did. If the officials had been amazed before, they were now dumfounded. After this lengthy process was finished, the writer stuffed the notes in his money belt and departed in much confusion, leaving the bewildered bank officials perplexedly discussing with one another the curious ways of the "crazy" Americans.

This experience should not be taken to mean that checks are not used at all in France. In some of the larger cities well-known and reputable firms use them to some extent. Transfer of funds between cities is accomplished easily. If you wish to make a payment to someone in another city, you can ask your branch bank to make the transfer from your account to one your creditor maintains in the other city. Or you can, if you have no deposit, give the branch some bank notes, pay a fee, and a transfer of funds will promptly follow. A similar method in Germany, called the "Giro" system, has been famous in the past for its speed, safety, and efficiency. Other Continental countries use similar methods. — C. S. T.

notes to an equal amount. Thus began what really could be called a government-bond-secured bank note. One of the early Bank of England notes follows:

27 April
J. V.

I promise to pay to Mr. Daniell Denny or Bearer on demand the Summe of One Hundred and fifty pounds eight shill. and 8 *d* — London the 24 day of January, 1699.

For the Govr. & Company of the Bank of England
John (Wase)[1]

Many unfortunate ventures in bank-note issue followed the discovery of this device of issuing a bank's promise to pay, which came to be used as money, and was secured by only a partial specie reserve. This principle of keeping only partial reserves made possible a large expansion of bank credit and bank-note issues, and in some countries specie reserves diminished to only a small percentage. Some early American state banks kept practically no reserves at all, and issued notes in profusion.

One reference must be made at this point to Chinese history. Apparently the Chinese had a fully developed system of banking and bank-note issue several centuries before European countries. They also experimented with full specie reserves and partial reserves.

The Currency versus the Banking Principle of Bank-Note Issue. The Bank of England, after a number of unfortunate experiences, was forced to secure all notes issued, except a small amount backed by government bonds, pound for pound by gold. This was prescribed by the Peel Act of 1844, and was due to the fact that the severe crises of 1825 and 1837 were believed to have been caused partly by the overissue of notes by British banks. As a result the Bank of England gradually came to have the monopoly of issuing bank notes.

The Peel Act of 1844 was called a victory for the currency principle of bank-note issue. For years the question was widely

[1] Article by R. D. Richards in the *Quarterly Journal of Economics*, Vol. XLI, p. 399.

debated, the opponents of the currency principle favoring the banking principle. Under the banking principle notes could be issued whenever the bank was called upon for cash, and full specie reserve was not required. It was argued that only under such a practice could banking be carried on efficiently and properly; great reliance was placed upon proper management. It was further argued that the currency principle, which permitted note issues only when an equal amount of specie or other currency was deposited as full security behind them, and made notes equivalent to specie or currency, placed banking in a strait jacket. Little or no elasticity, a quality deemed highly necessary in note issues, was permissible. If a bank-note system was to be efficient and satisfactory, it should provide for the expansion and contraction of notes according to business and trade needs, especially seasonal needs. If such expansion was impossible, there would be seasonal tightening of the money market and great difficulties in times of crisis. Before the passage of the Federal Reserve Act this was a common occurrence in the United States.

It will be remembered that lack of elasticity was one of the chief charges brought against the bond-secured national-bank-note currency in the United States before the establishment of the Federal Reserve System. Since the Peel Act of 1844 and the National Bank Act of 1863 provided for inelastic bank-note issues, England and the United States secured elasticity for the banking system as a whole by developing checking accounts, which soon became widely used. An increase in bank loans and investments as trade expanded led to an increase in deposits. In countries such as the United States, while individual banks may not create a large proportion of their own deposits in this way, the banking system as a whole may and does. A loan made by one bank creates a deposit which may be checked against and the check deposited in another bank. The result of a loan by the first bank is to increase the deposits of the second.

Typical examples of bank-note issues of the banking type were the Canadian bank notes before 1935 and the Bank of France notes issued before the war. They were both elastic, backed by only a small specie reserve, but were the first claim upon all the

assets of the banks. They are known as a *general-asset* bank-note currency. Probably, if bank management were extremely skillful and honest, a general-asset note currency would be preferable, as it would expand and contract with business requirements. But there have been so many disasters in the war and postwar years that the general tendency is away from the banking principle. France, for example, now requires a 35 per cent reserve against note issues, and most other European countries have placed greater restrictions upon note issues than before the war. The new Bank of Canada notes must have a reserve in gold or gold bullion of at least 25 per cent. The Canadian chartered banks no longer have the note-issuing privilege.

Security behind Bank-Note Issues. Practice is not uniform throughout the world with regard to legal requirements of security or backing for bank-note issues. The main objects have been to prevent overissue and to safeguard noteholders against loss. Before the Civil War in the United States the banks in many states issued notes on the banking principle with little specified reserve or specie behind them. The security which has been prescribed in various countries in the past to provide for safety may be classified as follows: general assets, specie, bonds, commercial paper, and land.

General Assets. Behind this type of bank note there is usually no pledge of any specific kind of security. Sometimes, however, a small fund in specie is required to be placed with some governmental or banking agency for the purpose of insuring prompt redemption. This is frequently described as the safety-fund principle. All the assets of the bank are really pledged as a body behind the notes, and the notes constitute a prior lien upon these assets.

The prewar Bank of France note and the old Canadian bank note (before 1935) are examples of this kind. In Canada there was a small safety fund established at Ottawa for purposes of redemption. Furthermore, the number of notes which a Canadian chartered bank might issue was, like the national-bank note in the United States, limited to the amount of the bank's paid-in capital. At specified times, such as the crop-moving period in the fall, a

bank might exceed this limit by 15 per cent of its capital and surplus by paying a tax upon the excess at the rate of 5 per cent annually. In France the upper limit was set by parliamentary enactment, but whenever the bank wished to increase its issue, it had little difficulty in securing the necessary approval. This was done a number of times during the war and is still the practice. The Bank of France has, nevertheless, generally maintained a very large specie reserve.

General-asset backing was used, in the early history of the United States, not only by the state banks but also by the first and the second Bank of the United States, the State Bank of Indiana (1834–1866), and other banks owned partly by the state governments. The Suffolk Bank of Boston (1818–1865) set up a central redemption agency by forcing the New England banks to maintain a balance with it for purposes of redemption or to pay their notes in specie upon presentation. Under proper and conservative management general-asset bank notes would probably be the ideal type, if a centralized redemption agency were maintained.

Specie. Some banks are required to maintain a specie reserve of varying amounts behind notes that have been issued. As has already been mentioned, the Bank of England is permitted to issue a definite amount secured entirely by government bonds (its fiduciary issue). All above this must be secured, pound for pound, by gold; at the present time £260,000,000 of notes may be secured by bonds. The Bank of Norway may issue notes to the sum of 250,000,000 kroner in excess of its gold reserve. The Bank of Sweden is entitled to issue 250,000,000 kroner based on government securities (its fiduciary issue). In addition it may issue notes equivalent to twice its gold reserve. The Bank of France must, since 1928, maintain a gold reserve of 35 per cent of its note circulation. The new Bank of Canada note requires a gold reserve of 25 per cent; a portion of the security above that amount may be in silver bullion purchased by the bank. The Bank of France and the Canadian notes are therefore no longer of the general-asset type. In Germany the Reichsbank must hold a reserve of 40 per cent against its outstanding notes. Three

quarters of this is in gold, and the rest in foreign exchange (*Devisen*), that is, bills of exchange and bankers' acceptances payable abroad. At the present time, however, this requirement is not strictly enforced, as the Reichsbank has practically no gold reserve left; this is due to Germany's financial difficulties and her attempt to maintain the mark at its gold parity in the foreign-exchange markets.

Against national-bank notes there must be kept a 5 per cent redemption fund in Washington. Against Federal reserve notes the Federal reserve banks must maintain a gold (now gold-certificate) reserve of 40 per cent, in addition to other prescribed security of commercial paper and (since February, 1932) government obligations.

Bonds. Reference to the use of government bonds as security behind Bank of England notes and the notes of the Bank of Norway and the Bank of Sweden has already been made. Under the free banking system established in New York State in 1838, a bank might be created under general law with the note-issue privilege, without a special legislative enactment granting a charter. If notes were issued, it was required that there be deposited with the state comptroller bonds of the United States government, of New York State, of other approved states, or mortgages on real estate. This was the first appearance of a bond-secured bank note in this country.

The national-bank notes are secured by United States government bonds. They will be described in more detail later. The Glass-Steagall Act of February 24, 1932, permitted the substitution of government obligations for the 60 per cent commercial paper requirement behind Federal reserve notes. The Federal reserve bank note, which is quite different from the Federal reserve note, is secured by government obligations. The Emergency Banking Act of 1933 permitted, as a substitute security behind Federal reserve bank notes, commercial paper or bank acceptances of the kind legal for rediscount at the Federal reserve banks. If such security is substituted, however, Federal reserve bank notes can be issued only to 90 per cent of the estimated value of the collateral.

A portion of the security behind the new Bank of Canada note may be in government obligations of the United Kingdom or the United States with a maturity of not more than three months at the time of acquisition by the bank.

Commercial Paper. The requirement that bank notes shall be backed, in whole or in part, by a specific pledge of commercial paper is a common one. The prewar German Reichsbank note was backed to the proportion of two thirds in this manner. However, notes in excess of an amount of 550,000,000 marks had to be secured completely by gold, or a tax had to be paid levied at the rate of 5 per cent yearly. Now Reichsbank notes are backed by commercial paper to the extent of 60 per cent. Deficiency in the prescribed reserves is, as in the case of the Federal reserve notes, penalized by a tax. The new Bank of Canada note may be secured in part by bills of exchange with a maturity of not more than ninety days.

When the Federal Reserve Act was passed in 1913, it was provided that Federal reserve notes should be fully secured by commercial paper, that is, notes, drafts, or bills of exchange. In addition a 40 per cent gold reserve was required. During the World War the law was changed to require only 60 per cent commercial paper and 40 per cent gold.

Before the enactment of the Federal Reserve Act, as a result of the panic of 1907, provision was made for the temporary issue of national-bank notes backed by commercial paper. This was effected by the Aldrich-Vreeland Act of 1908, which made it possible for national banks to issue notes to the amount of 75 per cent of the value of commercial paper bearing two names and having a maturity of not over four months. This type of issue was thought necessary because in the panic of 1907, and in previous monetary crises in this country, it had been found most difficult to increase the amount of national-bank notes outstanding with sufficient rapidity to meet the demands of frightened depositors for cash.

In the plan drafted by Senator Aldrich of Rhode Island for a central bank, in 1911, it was proposed to permit an issue of central-bank notes backed to the extent of one third by gold or lawful

money. The remainder of the security was to be commercial paper or United States government bonds.

Note issues backed by commercial paper have a great advantage over bond-secured currency. They are more elastic and respond with greater readiness to changing requirements of business.

Land. The experiences of John Law, the issue of French assignats, and the German Rentenmark note (backed by real estate) will be described later. Banks in the American colonies experimented with this type of security, and the history of such note issues is related elsewhere in this volume. In practically no recorded case has a bank note secured by land been successful. Overissue and depreciation have been the general result of such action.

State and National Bank Notes. There are in the United States today three kinds of bank notes: the national-bank note, the Federal reserve note, and the Federal reserve bank note. Banks and trust companies chartered by the various states may in some of these states still issue notes, but if they do they will be required to pay a 10 per cent Federal government tax. This tax was instituted in 1865 for the object of eliminating these state-bank notes from circulation. Shortly before the Civil War there were about sixteen hundred state banking institutions in existence, the majority of which issued bank notes.

The State-Bank Note. One of the major aims of banking reform before the Civil War was to make bank notes safe. The laws of many states were very lenient, and banks there were required to keep little or no specie reserve. When a bank failed, those who held its notes suffered a total loss on the notes of the closed bank. Furthermore, notes passed at a discount when they were in circulation at some distance from the issuing bank. There were some banks in the large Eastern cities whose notes passed at par, but these were exceptional. Finally counterfeiting was very common, there being hundreds of kinds of spurious issues afloat in the country as a whole.

It can readily be seen what chaos must have ensued at various times. Merchants were required to keep informed as to the status

of banks whose notes were brought in by customers. Everyone who received notes had to be certain that the bank was still open. A large number of notes of closed banks tended to lodge eventually in the hands of the poorer or more ignorant groups. In addition it was necessary to keep a counterfeit-detector (a book issued regularly for such a purpose) on hand continually.

The first Bank of the United States (1791–1811) and its successor (1816–1836) did excellent work in restraining the overissue of state-bank notes by collecting them and sending them home for redemption. Both the first and the second Bank of the United States, chartered by the national government, also issued their own notes, which furnished a safe kind of circulating medium. When Congress and President Jackson decreed that the second bank should not be rechartered, the state banks, freed from any restraining hand, multiplied rapidly and showered the country with issues which depreciated greatly.

Massachusetts and New York State were the leaders in the movement to make bank notes safe. In Massachusetts the Suffolk Bank of Boston (1818–1865) forced all outlying banks to maintain a specie reserve in Boston for the purpose of redeeming notes. If the outlying banks refused to do so, their notes were returned to them for redemption in specie. New York, in 1829, established a Safety Fund System, under which banks were required to keep a deposit with a state official to pay off both deposits and notes in case of failure. Later this was made effective only for notes, because the safety fund was not sufficient to take care of deposits also.

In 1838 New York established a bond-secured bank-note currency. As a safeguard against loss banks were required to deposit certain types of securities with the state comptroller. It was found that the eligible securities had to be most closely restricted as time went on in order to realize enough money to reimburse holders of notes of closed banks. The State Bank of Indiana (1834–1866) was another historic institution issuing a safe bank-note currency. This and other similar institutions in a number of states were owned partly by the state governments and were of great assistance in establishing a sounder currency.

Most of the institutions just described passed out of existence with the enactment of the 10 per cent state-bank-note tax in 1865. Note issue was still a most important function of banking institutions, since the use of checking accounts and demand deposits had not developed nearly so far as they have today. It was believed by state bankers that it was not possible to carry on banking activities for a profit without the right of note issue. Therefore some of them liquidated, but most of them shifted to the national banking system, which had been created in 1863.

The National-Bank Note. The national banking system was a product of the Civil War. Among others, Salmon P. Chase, then Secretary of the Treasury, was interested in the reform of our banking and currency system. For political reasons it seemed to be impossible to create a third Bank of the United States; therefore it was deemed advisable to set up a system of nationally chartered banks operating as individual institutions under supervision from Washington.

Secretary Chase had two chief reasons for advocating the creation of national banks: (1) to secure a more uniform and safe bank-note currency; (2) to obtain a market for United States government bonds in the endeavor to secure assistance in financing the Civil War. Therefore it was required that every newly organized national bank must buy government bonds to an amount equal to one third of its paid-up capital stock and surplus. Every bank had to buy at least $30,000 worth of such bonds. It was required that the bonds must be deposited with the government at Washington and upon them as security the national bank could issue its own notes to an amount not exceeding 90 per cent of the market value or 90 per cent of the par value. The amount of notes issued by a bank must not be greater than its paid-up capital.

The number of national banks organized between 1863 and 1865 was disappointing, so that the bonds they purchased were not of great assistance in financing the war. After the enactment of the state-bank-note tax of 1865 they increased rapidly in numbers, reaching in 1879 a total of 2048. In the middle of 1922 there were 8250 national banks; since then there has been a steady de-

cline, due to liquidations, failures, and consolidations, until today only about 5400 of these banks remain.

In 1882 the law was changed so that banks with a capital of $150,000 or less needed to buy bonds to an amount equal to one fourth instead of one third of their capital. Banks with a capital exceeding that figure were required, in the future, to buy at least $50,000 in bonds for the purpose of securing note circulation. The act of March 14, 1900, permitted the national banks to issue notes up to the full amount of the par value, but not in excess of the market price, of the bonds. Since the Federal Reserve Act of 1913 it has not been necessary for a national bank to purchase bonds if it had no desire to issue notes.

Not all national banks have taken advantage of the right to issue notes. On June 30, 1932, out of 6150 national banks over a thousand had no notes outstanding. Not all government bonds bear the circulation privilege. For example, in the early part of 1932 the only bonds which could be used as security for note issues were the 2 per cent consols of 1930 (approximately $600,000,000) and the 2 per cent Panama Canal bonds (approximately $75,000,000). The 2 per cent consols of 1930 were not required to be retired in that year, but could be called at any time after that date, on three months' notice, at the pleasure of the government. Since their retirement would have forced the automatic retirement of almost all the national-bank notes, they were not called for redemption. The Panama Canal bonds mature in 1936 and 1938, all but $25,000,000 maturing at the earlier date. Approximately 98 per cent of the consols and Panama Canal bonds were actually pledged to secure national-bank-note circulation. Therefore, even if the banks which had no notes outstanding had wished to issue some, it would have been very difficult for them to obtain the necessary amount of eligible bonds.

When the national banking system was created, Congress limited the total amount of national-bank notes which might be issued to $300,000,000. Below this sum two other factors had an effect upon the total amount issued: government bonds available for purchase as security and the paid-in capital of the national banks. In 1870 the limit was raised by Congress to $354,000,000.

Finally, by the act of January, 1875, providing for the resumption of specie payments, this restriction upon the circulation of national-bank notes was removed. Originally national banks were required to keep the same reserves against notes outstanding as against deposits: 25, 25, and 15 per cent, depending upon whether the bank was located in a central-reserve, reserve, or other city. This reserve requirement against notes was removed in 1874, only a 5 per cent redemption fund being needed after that date.

The original limitation upon the amount of notes which could be issued caused considerable difficulty between 1867 and 1870, when banks found that they could not issue notes to the amount desired, because of this restriction. By 1882 the amount outstanding had reached approximately $360,000,000. From that date until 1891 there was an almost steady decline to about $170,000,000, owing to the fact that the government was retiring its bonded indebtedness. Also, because of the improvement in national credit, the price of government obligations was rising, which lessened the incentive for banks to purchase bonds for this purpose. The long depression of the nineties and the Spanish-American War made conditions again favorable for note issue, and the amount outstanding had again reached $360,000,000 by 1901. In 1909 the figure passed the $700,000,000 mark for the first time.

One of the chief criticisms of the national-bank note was that it was inelastic, both for seasonal needs and for periods of monetary strain. If it had not been for the increase in money in circulation resulting from the Bland-Allison Silver Purchase Act of 1878, it is possible that the decrease in national-bank notes outstanding after 1882 might have had serious consequences. Had the government continued to retire its debts after 1891, the banks would have been forced to cease the issuance of their notes.

The unsatisfactory quality of a bond-secured bank-note currency was one of the chief reasons why the movement for monetary and bank reform gathered such strength after the panic of 1893. Nothing was actually done, however, until the panic of 1907 again revealed how difficult it was to increase note circulation quickly to meet sudden demands for cash.

It had also been found that national-bank notes were perversely elastic. When the need for additional circulation was greatest, the price of government bonds was such that banks were reluctant to buy them and issue more notes. When the price of bonds was low and banks were tempted to expand their circulation, additional notes were frequently unnecessary. Consequently a desire for a more broadly secured and properly elastic bank-note currency was behind the creation of the National Monetary Commission, the passage of the Aldrich-Vreeland Act of 1908 (permitting the temporary increase of national-bank notes based upon other than government bonds), the drafting of the Aldrich Plan, and finally the Federal Reserve Act.

It was hoped in 1913 that national-bank notes could be retired, but the banks were loath to give up the privilege, since it resulted in some slight profit and had some alleged advertising value. Furthermore, they asserted that retirement would force them to sell their government bonds, because the interest return on such bonds, eligible for circulation security, was small (slightly over 2 per cent), and this was too low for a permanent investment. If they were forced to sell their bonds for this reason, they claimed they would suffer considerable loss, and would give up their national charters and refuse to enter the Federal Reserve System. As a compromise it was decided to offer them several alternatives which will be discussed shortly in the section on the Federal reserve bank note. We will say here merely that the national-bank note is still with us, and recently national banks were encouraged to expand their outstanding circulation.

As the depression which began in 1929 deepened, there came from many people a demand for an increase in money in circulation on the ground that this would increase buying power and help to restore prosperity and prices. Prices had sunk to such low levels that, because incomes had also dwindled, many debtors were finding it difficult to pay their obligations. Consequently demands for some kind of inflation became insistent. On June 1, 1932, a bill designed to make all government bonds eligible as security for national-bank notes was favorably reported by the Senate Banking and Currency Committee. However, this was

believed to be too extensive, and finally it was amended to permit national banks, for a period of three years, to use as collateral any United States government bond bearing interest at the rate of not more than $3\frac{3}{8}$ per cent annually. This provision, known as the Glass-Borah rider to the Home Loan Bank Act, was enacted into law July 22, 1932.

Had it not been that the total of national-bank-note circulation was still restricted to the capital stock of the banks, an additional amount of $3,000,000,000 could have been placed in circulation. Actually, because of the limitation just mentioned, only another $1,000,000,000 was possible. This additional power of expansion rested, furthermore, chiefly with the larger city banks. In June, 1932, country banks possessed only 30 per cent of the unused issuing power. New York City, Chicago, and the reserve cities accounted for the difference. Banks in New York and Chicago alone could have issued $300,000,000 more had they chosen to do so.

In the middle of 1931 there were $650,000,000 of national-bank notes outstanding. This amount had risen to slightly over $700,000,000 by the time of the passage of the Glass-Borah rider to the Home Loan Bank Act. Those who expected a great increase in circulation as a result of the act were disappointed, for by January, 1933, the total had risen only to $836,000,000. In late February, 1933, when the total money in circulation reached $6,545,000,000, because of the extensive demand for money to hoard, national-bank notes constituted only 13 per cent of the total. At the end of March, 1933, the amount in circulation was $922,000,000. The high point was reached in February, 1934, with a total of nearly $940,000,000 outstanding. Thus it can be seen that only about one fourth of the possible expansion was utilized. Since February, 1934, there has been a gradual decline, until by April, 1935, the total outstanding was $810,000,000. In February, 1935, it was announced that notes issued under the Glass-Borah rider must be retired by the middle of 1935.

The Aldrich-Vreeland Act of 1908. In a previous case too, in 1908, when provision was made for an emergency issue of national-bank notes, full use of the power granted was not made. It was

realized that some kind of monetary reform was impending, but it was fortunate that the provisions of the Aldrich-Vreeland Act, which will be described in a moment, could be used to meet the crisis which developed at the outbreak of the World War. On May 28, 1908, after a Congressional debate of only one hour, the Aldrich-Vreeland Act was passed. It had not been considered by any regular committee of either branch of Congress, but was hastily put together by a Republican caucus committee as a political rather than a financial expedient, so that the Republicans might be able to say in the coming campaign that they had made provision for an emergency currency in case of a renewal of the stringency of the preceding autumn. The bill consisted of a part of a measure prepared somewhat earlier by Congressman Vreeland of New York, and of a part of the Aldrich bill, which had previously passed the Senate. It embraced the principles of an asset currency, which neither house of Congress had ever previously accepted. It was therefore a step in the right direction.

It permitted a group of national banks, each having an unimpaired capital and surplus of not less than 20 per cent, with an aggregate capital and surplus of at least $5,000,000, to form national currency associations. Any member of this association, with notes already outstanding to 40 per cent of its capital stock, could deposit certain securities with the association and issue notes upon them. If state, city, town, county, or other municipal bonds were deposited, the Comptroller of the Currency would permit the bank to issue notes up to 90 per cent of their value. Other bonds, and two-name commercial paper with a maturity of not more than four months, could support notes only to 75 per cent of their value. All the banks in the currency association were to be jointly and severally liable for all such notes issued. The total amount which could be issued was set at $500,000,000. To provide for early retirement of the notes a tax at the rate of 5 per cent per annum was levied upon the average amount outstanding the first month. After that an additional tax of 1 per cent per annum was to be paid, and the amount was to increase 1 per cent each successive month until the total reached 10 per cent. The act was to expire June 30, 1914.

It was, however, very fortunately continued in force until June 30, 1915, by the terms of the Federal Reserve Act. No circulating notes were issued under it until the outbreak of the World War in August, 1914. When this event occurred, there was a sudden demand for gold abroad, which led to exports of that metal from the United States to the amount of $165,228,000 over and above imports of that metal for the year. Fortunately preparations had been made beforehand for emergencies. The Aldrich-Vreeland notes had been printed in suitable denominations and sufficient quantity. There was a sudden demand for them, and they were turned over to the banks to the amount of $384,482,025 before the end of December, 1914, in exchange for commercial paper, state and city bonds, and other securities authorized by the act. But for this stopgap we might have had a more devastating bank panic than had ever been experienced before that time. Not a dollar was lost by the government in this transaction, but a considerable sum was gained through the interest paid by the banks on the notes. The notes were retired almost as rapidly as they had been issued. On February 18, 1915, the amount outstanding had been reduced to $38,096,000. In the meantime nobody had felt any lack of currency, there had been no premium on gold, and no panic. The notes were all retired before the middle of 1915.

Legal Tender and Other Provisions. On June 5, 1933, national-bank notes were made full legal tender for all debts, public and private. Previously they had had strictly limited legal-tender powers. They had to be received at par by all other national banks, and were redeemable at national banks and at the Treasury. They are a prior lien upon the assets of the bank, and their redemption is guaranteed by the government. The profit to be derived from their issue is small. The national government levies upon them a semiannual tax of $\frac{1}{4}$ of 1 per cent, or one of $\frac{1}{2}$ of 1 per cent if the bond used as security bears more than 2 per cent interest. However, the notes issued under the Glass-Borah rider to the Home Loan Bank Act of July 22, 1932, were taxed only as though they had been issued on 2 per cent bonds. A bank might have lent the sum invested in government bonds at, possibly,

6 per cent interest instead of issuing notes. If it did issue notes, the extra profit to be derived from the income from government bonds and note issue varied over a period of years from ½ of 1 per cent to slightly over 1 per cent. In addition to the tax on notes the banks must pay the cost of engraving and printing the notes and of their transportation. If the bond used as security yields only 2 per cent, it being assumed that the bank bought it at par, the expense to the bank consumes much of the difference, because it bears the cost. On the temporary issues from 1932 to 1935 the profit was larger, since the bonds bore a somewhat higher rate of interest.

Originally national-bank notes outstanding were almost as large as the deposits of the banks. In 1870 the deposits were approximately $500,000,000, and notes came to almost $300,000,000. But for the original limitation in the amount permissible, notes would probably have equaled deposits at that time. By the end of 1929, however, deposits had grown to nearly $20,000,000,000, while notes were only $650,000,000. Late in 1934 deposits were about $18,000,000,000, and notes outstanding amounted to less than $900,000,000. Therefore note issue has come to be only a minor function of a national bank.

The only good reason for urging the retirement of national-bank notes now lies in the fact that it would simplify our monetary system. With respect to their safety there is no question. No one has ever lost a dollar by taking a national-bank note. The fact that they are still relatively inelastic is no longer important, since elasticity has been furnished by the creation of the Federal reserve note, to a discussion of which we now turn.

The Federal Reserve Note. The reasons for the creation of a new type of bank note in the United States have already been mentioned. Primarily the need was for a more elastic type of currency, and this was made possible by the provision for a Federal reserve note in the act of 1913 establishing the Federal Reserve System. Each of the twelve regional reserve banks set up by that act may issue these notes under the rules and regulations established by the Board of Governors at Washington, in accordance with the provisions of the Federal Reserve Act. The Federal

Reserve System will be described in more detail later. All that will be said here is that it is a system of bankers' banks, each of the reserve banks being owned by the member banks in its district. All national banks must be members and buy stock in their reserve bank. A number of state banks and trust companies which have complied with certain requirements also belong. The reserve banks hold the legal reserves of the member banks, rediscount commercial paper for them, advance funds to them upon the security of government bonds, and perform other functions. The chief supervisory body in the system is the Board of Governors in Washington, the members of which are appointed by the President, with the advice and consent of the Senate.

On the face of the Federal reserve note is this inscription, "The United States of America will pay to the bearer on demand . . . [a certain number of] dollars." Why does the note not read that the Federal reserve bank, through which it is issued, promises to pay this sum? The answer is that William Jennings Bryan, Secretary of State in the cabinet of President Wilson, insisted that these notes should be issued by the government, since the right to issue money was a governmental function. Since he had three times been a candidate for the presidency and had a strong political following, it was thought necessary to appease him. Although the wording on the face of the note states that it is an obligation of the government, it is, nevertheless, in every other respect a true *bank* note.

Method of Issue. Request for the issue of Federal reserve notes is made by a member bank of the Federal reserve bank in its district. When the member bank needs cash to pay out to its depositors, it can get it from its reserve bank in several ways. It can draw a check against its reserve deposit kept in the reserve bank, and take the proceeds out in Federal reserve notes. If its reserve deposit is no more than the required amount, and it does not wish to overdraw this amount for fear of having to pay a penalty, it can take eligible commercial paper which it has discounted for businessmen and discount it again (rediscount) at the regional reserve bank, taking the proceeds in reserve notes or other cash held by the reserve bank. Or, if the member bank prefers not to rediscount

commercial paper (some banks object to this practice), it may borrow on its own fifteen-day note, secured by commercial paper or government bonds, from the reserve bank. This is called an advance, and is favored by many member banks. Still another method may be used: the member bank may *sell* bankers' acceptances, which it owns, or government bonds to the reserve bank.

How does the reserve bank get the reserve notes? The department which pays them out secures them from an officer of the Federal reserve bank known as the Federal Reserve Agent. Collateral in the form of eligible commercial paper or gold (now gold certificates, since all gold has been centralized in Washington) must be deposited with the Federal Reserve Agent. The different types of eligible paper are as follows:

1. Promissory notes, drafts, or bills of exchange which have been issued or drawn for agricultural, industrial, or commercial purposes and already rediscounted for a member bank by the reserve bank. Commercial paper must have a maturity of not more than ninety days at the time of rediscount. Agricultural paper may have a maturity of nine months.
2. Bills of exchange endorsed by a member bank, or bankers' acceptances bought in the open market by the reserve bank.
3. Notes, drafts, or bills of exchange drawn by customers of a member bank for the purpose of trading in government obligations and rediscounted by the reserve bank for the member bank.
4. Promissory notes of member banks, with fifteen days maturity, secured by commercial paper or government bonds.
5. Since the passage of the Glass-Steagall Act of February, 1932, government bonds owned by the reserve bank may be used in place of commercial paper, if commercial paper is not available, up to 60 per cent of the amount of Federal reserve notes outstanding.

Safety of Federal Reserve Notes. The Federal Reserve Act originally prescribed a 100 per cent backing of commercial paper and 40 per cent in gold in addition. But during the World War the requirement was reduced to 40 per cent gold and 60 per cent commercial paper.

The Glass-Steagall Act permitted the substitution of government bonds, as described above. The first use of this provision

was made on May 5, 1932, when nearly $100,000,000 of government bonds were so pledged. Additional bonds were later pledged. The reason for this provision was that it was feared that, with the declining amount of commercial paper coming to the Federal reserve banks, the amount of gold in these banks might not be sufficient if the other provisions of the Glass-Steagall Act were to be effective. During the postwar years the Federal reserve note had come to be supported practically 100 per cent by gold, and it was desired to free some of this gold for other purposes, especially to make possible the maintenance of the requirement of a reserve of 35 per cent in gold or lawful money against member-bank reserve deposits in the Federal reserve banks. The Glass-Steagall Act contemplated a great expansion of open-market purchases of government bonds in order to force excess reserves upon the member banks, in the hope that this would encourage member-bank credit expansion as an aid to business recovery. Such an increase in deposits would have meant an increase in reserves equal to 35 per cent. Even with the new requirements in force the gold reserves of the Federal reserve banks approached the legal minimum just before the bank holiday of March, 1933.

There is no question about the safety of the Federal reserve note. It is, in addition to being backed by 40 per cent in gold and the rest in commercial paper or bonds, a prior lien upon all the assets of the reserve banks. Finally it is guaranteed by the United States government. A 5 per cent redemption fund, calculated as part of the 40 per cent reserve, is maintained at Washington. While the reserve note, since March, 1933, is not redeemable in gold, this is no reason to fear for its safety. The reserve notes are as safe as the government itself. They were made full legal tender on June 5, 1933.

Elasticity. The Federal reserve note has proved itself to be much more elastic than the national-bank note. It was originally believed that it would increase and decrease in volume with the amount of commercial paper being presented by the member banks for rediscount. When business was active and member banks were rediscounting liberally in order to secure cash or additional reserves at the reserve banks, it was expected that notes in

circulation would increase. Then, when business slowed down, member banks would repay their loans with surplus Federal reserve notes which accumulated in their vaults. These notes would eventually go back to the Federal Reserve Agent, the paying division of the reserve bank withdrawing the collateral previously deposited with him.

However, elasticity has not been as perfect as this because of borrowing methods used by the member banks, especially in the use of the fifteen-day collateral loan note secured by government bonds. The amount of Federal reserve notes issued depends entirely upon requests for them from member banks. What has developed is an elasticity in all money, instead of just in Federal reserve notes, since the Federal reserve banks take in and pay out all forms of money. In seasonal elasticity there is a great improvement. The amount of money in circulation varies with seasonal needs, rising generally to its yearly peak during the Christmas holidays. It is chiefly in seasonal elasticity that the Federal reserve note measures up to the ideal of an automatically expanding and contracting bank-note issue. With regard to secular (long-time) and cyclical elasticity much still remains to be done.

There is a short-time type of elasticity which must be mentioned. It is found that at periods of pay-roll disbursements the Federal reserve notes outstanding increase in amounts as banks request more money from the reserve banks. When the money is spent, it flows back to the member banks, and they, finding that they have more cash than they need, deposit it in the reserve banks until it is again needed for pay rolls.

This point is not well understood by those who have during the last two or three years clamored for an increase in the money in circulation. Since probably 90 per cent of all transactions are paid for by checks, the amount of money in circulation depends upon how much money the customers of banks wish or need to pay their bills. A sudden injection of several billions of dollars of new money into circulation for the payment of the soldiers' bonus, for unemployment relief, or for the purchase of government bonds would mean that the recipients would immediately have more money to spend. Retail and other merchants receiving it would

promptly deposit it in their banks. The banks would find that they had more cash on hand than was needed, and they would deposit it in the reserve banks. The credit thus built up might be used by a bank to repay its borrowings from the reserve bank, or for investment. If the bank saw no place in which the deposit built up at the Federal reserve bank in this manner could be used, it might just leave it there.

An example of how member banks might permit such surplus reserves to accumulate can be found in the government-bond-buying campaign indulged in by the reserve banks under their open-market powers from 1932 to 1935. As a result the surplus reserve deposits held by the member banks in the reserve banks increased late in 1934 to almost $2,000,000,000, and early in 1935 to nearly $2,500,000,000. This was the expected result, of course, and was thought desirable, since it might lead the member banks greatly to expand their loans to business. In this respect the advocates of enlarged open-market bond-buying were disappointed, for the banks were slow to expand their loans, claiming that they could not find enough borrowers of good credit standing. Consequently, if a large amount of additional paper money were issued, it would, after being used once or twice, eventually drift back to the reserve banks, increasing the surplus reserves of the member banks still further. Successive issues of paper money would likewise flow into the reserve banks, still further increasing surplus reserves. This would continue until the people lost confidence in the paper money; its velocity of circulation would increase rapidly, and prices would mount to much higher levels.

Brief History of Federal Reserve Notes. The Federal reserve banks opened their doors for business in December, 1914. One year later there were $215,000,000 in Federal reserve notes in circulation. By the end of 1916 the total was only slightly larger. In 1917 the amount in circulation began to increase rapidly, reaching over $1,000,000,000 by the end of the year. The peak was reached in December, 1920, when the notes in circulation came to $3,400,000,000. From that high point came a decline to less than $2,000,000,000 by 1924. The amount remained almost stationary for several years after that, dropping as low

as $1,600,000,000 in 1928. In 1930 the postwar low point of $1,350,000,000 was reached. During 1931, 1932, and 1933, because of the increase in hoarding, Federal reserve notes in circulation grew rapidly. The $2,000,000,000 mark was again passed in September, 1931, the $3,000,000,000 mark in early February, 1933, and a high point for all time of $3,750,000,000 was reached just before the bank holiday of March, 1933. After the banks were reopened and confidence restored, the issue again declined to approximately $3,000,000,000 in the early fall of 1933. Since that time it has fluctuated somewhat closely around that figure.

The extent of the drain of money into circulation due to the panic of February and early March, 1933, is shown by the fact that all money in circulation reached an all-time high point of $7,500,000,000 on March 3. In the last ten days before the holiday, over $1,500,000,000 was withdrawn in cash by frightened depositors. This threw a tremendous strain upon the Federal reserve banks, for such an increase in demand for actual cash had never been witnessed before. At that rate, in two or three more days, the Federal reserve banks would have had no paper money left to pay out. So they too were closed, partly in order that more Federal reserve notes could be printed and legislation enacted permitting an emergency broadening of the eligible paper base.

Let us revert to the World War and immediate postwar period for a moment. During 1917 and 1918 it became evident that a very large portion of the Federal reserve notes outstanding were being backed by what was called "war paper." When in 1917 it was decided to impound all the gold in the country in the Federal reserve banks, banks turning in their gold were given Federal reserve notes in exchange in many cases. The gold taken in was at first used in large part to back the notes. Between 1915 and the end of 1918 we added over $1,000,000,000 to our total gold stock by means of imports from abroad.

As the war progressed, "war paper" came to be used in larger and larger amounts to back the notes. "War paper" was made up of the promissory notes of member banks, secured by United States government obligations. Member banks helped to finance the war by supporting the government's "Borrow and Buy" cam-

paign to float government bonds. They borrowed from the reserve banks on their own notes, secured by government bonds, and themselves bought more bonds, and assisted their customers, by means of lending to them, to do the same. This contributed to the resulting inflation during that period, an inflation due to a rapid expansion of bank credit.

After the armistice, notes continued to expand, but they came more and more for several years to be collateraled by commercial paper instead of "war paper." Between September, 1920, and August, 1922, the gold tide turned again, and we imported over $1,000,000,000 more gold, after having lost about $400,000,000 to foreign countries in 1919 and early in 1920. Member banks used these gold imports to pay off their loans at the reserve banks. There had been over $1,000,000,000 of gold certificates outstanding in 1914, but these had been reduced to $170,000,000 in 1921 by the process of impounding gold in the Federal reserve banks and replacing the certificates by Federal reserve notes. But with this great influx of gold, especially since between late 1922 and November, 1924, we imported still $600,000,000 more, gold certificates were again paid out in circulation, until by 1926 over $1,000,000,000 were again outstanding. One reason for this may have been that the authorities feared an inflationary expansion of bank credit if the gold piled up in the Federal reserve banks was permitted to support the bank credit possible.

In 1922 gold began to be used more and more to support Federal reserve notes, especially as the volume of commercial paper rediscounted at the Federal reserve banks began to decline. Gold certificates were substituted in large amounts for Federal reserve notes, and the Federal reserve notes remaining in circulation came to be so fully backed by gold that they were almost the equivalent of gold certificates.

As a result it may be said that, except for seasonal fluctuations, the Federal reserve note has not yet approached the ideal of an automatically expanding and contracting bank-note currency. During much of the postwar period the volume of notes outstanding depended to a high degree on the gold policy of the reserve banks. This means that gold imports and exports, and the resulting credit

policy of the reserve banks, frequently played a much larger part in determining how many Federal reserve notes would be issued than the amount of eligible commercial paper available. When new gold was imported by banks, it was deposited in the Federal reserve banks. The credit placed to the deposit account of a member bank became a legal reserve. The member banks were thereby able to increase their loans to their customers without being forced to rediscount commercial paper or to borrow. The policy of the reserve banks was to pay gold certificates into circulation when the amount imported increased. When gold exports were larger, the demand for currency was met by paying out Federal reserve notes. Thus the notes varied in amount with gold movements.

There were still $1,000,000,000 in gold certificates in circulation as late as September, 1931. Then they began to be withdrawn and by February, 1933, had been reduced to $600,000,000. When gold was called in after the bank holiday, the number declined greatly, until only about $120,000,000 remain outstanding. By early 1935 practically no commercial paper remained in the reserve banks; and member banks have for months been virtually out of debt to the reserve banks, since their excess reserves are so large. The one chief asset today of the reserve banks is government obligations, over 97 per cent of their assets being in that form. Consequently the Federal reserve note today is far removed from the type of currency which those who drafted the Federal Reserve Act thought they were creating. Automatic elasticity may be restored in the future, but, since the national government has during the depression come to use the Federal Reserve System more and more as an instrument of governmental financial policy, this is problematical.

Further Provisions Regarding Federal Reserve Notes. In order to provide for emergencies the Federal Reserve Board was given the power, in the original act, to suspend the 40 per cent gold-reserve requirement. There is, however, a prescribed penalty if use is made of this power. A tax beginning at the rate of 1 per cent per annum is levied, and this tax increases rapidly as the actual reserve falls farther and farther below the 40 per cent requirement. The reserve bank pays the tax and must raise its rediscount rate

(the interest charged the borrowing banks) by an amount equal to the tax. This provision has, however, never been used, although some authorities maintain that the gold embargo of early 1933 and the suspension of the gold standard at that time would not have been necessary had the Federal Reserve Board made use of its power in this respect.

The Board of Governors also has the right to levy a tax upon that portion of Federal-reserve-note issue which is not covered by gold. This tax must be borne by the reserve banks and cannot be shifted by raising the rediscount rate. This power likewise has never been utilized.

Legally Federal reserve notes cannot be used as reserves by member banks. All required reserves against deposits of a member bank must be kept in its district reserve bank. Thus deposits kept by the member banks in their reserve bank constitute the "reserve deposits" to which reference is so frequently made. However, state banks which are not members of the Federal Reserve System can and do, in many states, count Federal reserve notes in their vaults as part of their legal reserve.

To provide that Federal reserve notes shall be returned as rapidly as possible to the reserve bank through which they were issued, the Federal Reserve Act levies a tax of 10 per cent upon all Federal reserve notes paid out by a reserve bank other than the one that originally issued them.

The Federal Reserve Bank Note. It is important that the distinction between Federal reserve notes and Federal reserve bank notes be fully realized. The Federal reserve bank note is issued by a reserve bank and is a promise of that bank to pay the holder a certain sum of money. In this respect, and also in respect to the security behind it (before March 9, 1933), it resembles the national-bank note. In fact, it was created largely for the purpose of retiring the national-bank note. It will be seen, therefore, that it is quite different from the Federal reserve note. The legislation of March 9, 1933, gave it some resemblance to the latter, as will be seen presently, but this is probably only a temporary situation.

The Federal Reserve Act provided that national banks which wished to retire their notes might, during a twenty-year period

ending December 23, 1935, request the Treasurer of the United States to sell the bonds securing these notes. The Federal Reserve Board could thereupon require the Federal reserve banks to buy the bonds at par plus accrued interest, in an amount not exceeding $25,000,000 in any one year. The money received for the bonds would be used to retire the national-bank notes when they came in. From 1914 to 1917 only about $70,000,000 in national-bank notes were so retired, and then the bonds securing them went to such a high price that the national banks would not sell them at par.

When the Federal reserve bank bought the 2 per cent bonds, it could, if it wished, issue Federal reserve bank notes against them. A 5 per cent redemption fund was thereupon required to be placed in the United States Treasury. The Federal reserve bank notes, therefore, were similar to the national-bank notes, except that the amount issued was not restricted to the capital of the reserve bank.

However, if the reserve bank did not wish to issue bank notes, it could exchange one half of the 2 per cent bonds purchased for one-year United States 3 per cent gold notes without the circulation privilege. The other half could be exchanged for thirty-year 3 per cent gold bonds without the circulation privilege. Most of the bonds bought from the national banks up to 1918 were exchanged for these 3 per cent government obligations.

The Pittman Act of April 23, 1918. Early in 1918 the British government needed a large amount of silver for currency-redemption purposes in India. It was afraid that unless the silver could be secured at once, serious unrest might develop in that country which might hinder the British military campaign against Germany. An appeal was made to the United States, and Congress authorized the calling in of silver certificates to the amount of $350,000,000. The silver dollars behind them were to be melted down and the silver sold to Great Britain at the price of a dollar an ounce. Approximately 260,000,000 silver dollars were accordingly melted down and the silver sent to India. In order to secure the agreement of the silver interests to this act, it was deemed necessary to provide that, when the emergency was over, a similar amount of domestic silver must again be bought at not less than a

dollar an ounce, silver dollars again coined, and silver certificates reissued. This legislation is known as the Pittman Act.

It was feared that the withdrawal of the silver certificates might lead to an undesirable contraction of the currency. This fear was unreasonable, since Federal reserve notes were increasing rapidly in numbers, but to satisfy those who held this view it was provided that Federal reserve *bank* notes should be issued to take the place of the silver certificates. These notes were secured by one-year 2 per cent United States certificates of indebtedness or one-year 2 per cent gold notes of the government. The greatest number outstanding was $261,000,000 on December 26, 1919.

When the emergency was over, the Federal reserve bank notes were retired and replaced by silver certificates, the government obligations being paid off. Incidentally the silver-producers realized handsomely in the process. Silver had reached a price of over $1.30 an ounce late in 1919. The prices of all commodities had risen greatly, and in a gold-standard country the price of silver moves with other commodities. At that price the silver in a silver dollar was worth more than a dollar, and some silver dollars were hoarded or melted down for their bullion. When commodities began to drop rapidly in 1920, silver likewise fell rapidly in price far below one dollar an ounce. But the government was required to keep on buying domestic silver at that price.

As a result the domestic silver price was pegged far above the world price until the repurchasing was complete. To cap the climax, not satisfied with their easy profits from this source, the silver interests claimed that the government had not bought all it was supposed to buy and entered suit. They lost the case, and rightly so. All but about $3,000,000 of the Federal reserve bank notes issued under the Pittman Act had been retired by early 1923. The reserve banks deposited enough money with the Treasury to cover the notes outstanding and removed them from the liability side of their balance sheets. Many of them are lost or destroyed and will, of course, never be redeemed.[1]

[1] The undersigned has two of them, each of a denomination of one dollar, which he is keeping as curiosities or souvenirs. That accounts for two dollars of the three million. — C. S. T.

The Act of March 9, 1933. Because of the great demand for currency preceding the bank holiday of March, 1933, it was thought necessary to provide immediately for an increase in circulation to be available when the banks reopened. Consequently the Emergency Banking Act of March 9, 1933, permitted an issue of Federal reserve *bank* notes on a somewhat different basis from the one previously existing. The act provided that these notes could be issued upon two types of security: (1) upon direct obligations of the United States; (2) upon notes, drafts, bills of exchange, or bankers' acceptances acquired under the provisions of the Federal Reserve Act, that is, of the type eligible for rediscount. These were to be deposited with the Treasurer of the United States. If secured by obligations of the United States, notes could be issued to the full face value of such obligations. If backed by the other form of security, they could not exceed 90 per cent of the face value of such notes, drafts, bills of exchange, or bankers' acceptances.

They were made receivable at par in all parts of the United States, and were subject to the same tax as national-bank notes secured by 2 per cent government bonds, namely, ½ of 1 per cent annually. They are redeemable in lawful money and not in gold. After the President has by proclamation officially declared the emergency over, none shall be issued except upon the same bonds as are eligible for national-bank-note circulation.

By the middle of April, 1933, only $25,000,000 had been issued, but the amount outstanding grew rapidly until, on December 20, over $212,000,000 were in circulation. Since that time, with the flow of money back to the banks, there has been a steady decline until by early 1935 the figure was reduced to less than $100,000,000. The process of retirement will probably continue.

This adventure with Federal reserve bank notes, which we trust will be our last one, is curious, to say the least. But it shows to what means we resort in times of panic. Whether these bank notes were really needed is a debatable question. The Federal Reserve Board, itself, pointed out that the crisis was "not a currency crisis but a banking crisis, and was occasioned not by a shortage of currency but by a loss of confidence in the solvency of

banks and by a depreciation of bank assets consequent upon the drop in prices of all classes of property caused by the depression." That the Federal reserve banks issued over $200,000,000 shows that they may have thought them necessary. However, the member banks could have borrowed from the reserve banks and secured Federal reserve notes if necessary. The history of Federal reserve bank notes reveals that in an attempt to simplify our currency system by eliminating national-bank notes we were unsuccessful. What we actually did was to create still another type of paper money to complicate our monetary system still more.

NOTE. The United States Treasury on March 11, 1935, suddenly announced that the national-bank notes were at last to be retired. The 2 per cent consols were called for payment on July 1, 1935; the Panama Canal bonds were called for payment on August 1. The notes issued under the Home Loan Bank Act were to be retired by July 22. The national banks had by May 1 deposited approximately $500,000,000 in lawful money with the Treasury for the purpose of reducing their liability on national-bank notes. Thus a historic bank note will finally pass out of circulation.

The Federal reserve banks have deposited lawful money with the government for the purpose of retiring the Federal reserve bank notes. These, since March 27, 1935, no longer appear as liabilities on the balance sheets of the reserve banks.

At several places in this chapter it has been stated that after the opening of the Bank of Canada the chartered banks lost the right to issue notes. Section 24 of the Bank of Canada Act gives a monopoly of note issue to that bank, "except as provided in the *Bank Act.*" The *Bank Act* is the general banking law of Canada. It now appears that amendments to this act permit the *gradual* retirement of chartered-bank notes over a ten-year period. At the end of that time the chartered banks will retain the right to issue notes in an amount equal to 25 per cent of their capital.

CHAPTER VIII

PRICES AND THE VALUE OF MONEY

Money has value because it can be used to purchase commodities and services. People will take money because they know they can pass it on to someone else in exchange for things which they desire. However, money does not always have the same value, since the amount of commodities and services which a definite sum of money will buy is frequently changing. The value of money, therefore, is measured by its buying power. When prices rise, money will buy less, and its value falls. When prices fall, money will buy more, and its value rises. Sometimes prices rise or fall rapidly, and sometimes they rise or fall slowly over a long period of years.

One of the most difficult problems in economics is to determine why money changes in value, why its purchasing power varies from time to time. Much study has been given to this subject, many volumes have been written upon it, but economists have not yet reached complete agreement about it.

Measurement of Price Changes. The daily newspapers and financial journals contain much statistical information on price movements. It is possible to follow the day-to-day changes in the price of wheat, oats, corn, livestock, and many other agricultural products and raw materials. But if accurate knowledge regarding how much prices have changed within a certain period is to be obtained, it is necessary to have some method of measurement. For example, it is known that many prices in the United States declined for a period of years following the War of 1812. After the gold discoveries in Australia and California prices rose for a considerable period. During the Civil War there was a rapid rise of prices in the United States. From 1865 to 1897 prices turned downward and after the new gold discoveries again began to rise.

A rise continued in the United States until 1915; then prices increased rapidly until 1920, when a rapid decline set in until about the middle of 1922. Another peak was reached early in 1923, followed by a slight decline, and from 1924 to 1929 there was a period of moderate stability. In 1929 began one of the most rapid declines in all history for a period which had not been preceded by a wartime or postwar inflation. From the middle of 1932 prices in the United States have been gradually moving upward again.

Index Numbers. In order to measure these price changes with some degree of accuracy statisticians have invented a device called index numbers. For example, the price of a bushel of wheat on a certain date is $1. This date is called the base and is designated as 100. One year later the price of wheat is 50 cents. Since this is half of what it was on the date taken as a base, the index number of the price of wheat for the second date is 50. If the price of wheat had risen to $1.25, the index number would have been 125. If three years later the price has risen to $1.50, the index number becomes 150. It will be seen, therefore, that what the index number measures is the percentage of change from the date selected as a base. Some statisticians will object to calling a percentage change in the price of a *single* commodity an index number, preferring to use this term only for the average of a *group* of commodities. We use it here for a single commodity only for purposes of illustration.

It is comparatively easy to measure changes in the prices of individual commodities in this manner. But, if we are to have some idea regarding the change in prices as a whole, it is necessary to find some way of reaching an average for a large number of price changes. The value of money in general, its purchasing power, cannot be found by examining changes in the price of one commodity only. One commodity may show a price rise; the price of another may be declining. A large group may be rising while another is falling. The result may be that it takes no more to buy all these commodities than it did before, since the larger amount paid for the first group may be offset by the smaller sum paid for the others. In other words, $1000 will buy just as much on the whole as before.

Sometimes, however, more prices are rising than falling, in which case $1000 will buy less than before. The contrary may also happen. The following is an example of how this may be shown statistically:

	Index Number (Base year)	Index Number (1 year later)	Index Number (2 years later)	Index Number (3 years later)
1st commodity . . .	100	125	110	101
2d commodity . . .	100	110	120	110
3d commodity . . .	100	105	110	90
4th commodity . . .	100	95	100	102
5th commodity . . .	100	90	90	95
6th commodity . . .	100	75	88	90
Divide by number of commodities . . .	6 ⌊ 600	6 ⌊ 600	6 ⌊ 618	6 ⌊ 588
Average	100	100	103	98

At the end of the first year the average price index of these six commodities has not varied, although all individual prices changed. The second year found the rises exceeding the declines, and the index has increased 3 per cent. At the end of the third year, however, the declines have been greater than the increases, and the index is now 2 per cent less than the base year. The example above is based on a simple arithmetic average.

It is common knowledge, however, that to the purchaser some commodities are more important than others. To the ordinary family the fluctuations in the prices of foods are more important than changes in the prices of dishes or garden tools. One article may occupy only a small place in the budget over a long period of years, while others, like bread, butter, milk, and vegetables, are purchased every day. The buying power of the family income depends largely upon how rapidly the prices of articles of daily consumption vary.

It becomes necessary therefore to use a method which will give the proper importance to commodities upon which the larger proportion of the family income is spent. This method, now generally utilized, is called *weighting*. One item may be three times as significant as another. Its index number should be so evaluated

that its greater relative importance becomes evident. It is the same principle as that followed in the registrar's office of some colleges or universities in determining the final standing of a student. A grade of B received in a four-hour course has more influence upon the final average than a similar grade in a two-hour course. Let us take the example already used, varying it in accordance with the principle of weighting.

	Weight		Weighted Index Number (1 year later)	Weighted Index Number (2 years later)	Weighted Index Number (3 years later)
1st commodity	3	Multiply indices given in previous example by figure showing weight given to that item.	375	330	303
2d commodity	3		330	360	330
3d commodity	2		210	220	180
4th commodity	2		190	200	204
5th commodity	1		90	90	95
6th commodity	1		75	88	90
Divide by total weights . .	12		12 | 1270	12 | 1288	12 | 1202
Average . . .			105.83	107.33	100.16

By comparing the results in this example with those in the former one it can be easily seen how weighting the individual index by its estimated importance may change the average reached when no commodity was weighted. To be specific, the nonweighted index of 100 becomes 105.83, 103 becomes 107.33, and 98 becomes 100.16. It is clear that the final figure depends upon what weights are given to the particular articles. Obviously they cannot be accurate; they are only approximations. In an index of physical production sometimes the weight of each item is ascertained by determining what the money value of that item is compared with the money value of other items. For example, if it is found that the money value of a certain product is four times as great as that of another product, the relative weights would be 4 and 1.

The method presented here has been simple. More complicated methods are used by many statisticians, into which we need not go here. One such method is called the determination of the geometric mean. If we had been using this method, we should

have multiplied the individual indices of our six commodities (in the first example) together and then extracted the sixth root of the product. This method minimizes any sudden change in the price of any one commodity. There is considerable dispute among statisticians as to whether the results would in most cases justify the increased calculation and labor involved.

One word of caution must be uttered regarding the construction and interpretation of index numbers. What is the purpose of an index number? There are different kinds of prices, and there are many kinds of commodities. An index may show the movement of wholesale prices or retail prices. It may include the major items in a family budget, such as food, fuel, clothing, rent, public-utility charges, gasoline and other common expenses in running an automobile. This would be a *cost of living* index. Again, you may wish to know the purchasing power of income with respect to everything that money is spent for. Carl Snyder of the Federal Reserve Bank of New York has constructed an index of this type, which he calls a *general* price index. In it he includes various wholesale prices, some retail prices, rents, prices of real estate, transportation rates, wages, and security prices.

It is important, therefore, to know just what items are included in an index, whether they are wisely selected, and just what a particular index shows. Do not use an index of thirty selected raw materials to prove that *all* wholesale prices have risen. Do not use a retail *food-price* index to show that the cost of living as a whole has risen or fallen. If you wish to discover how much of an increase in the value of goods exported from the United States is due to an increase in prices, do not use a price index heavily weighted with commodities which do not move in foreign trade. In other words, when you say "prices," what prices do you mean?

There was once a well-known price index which included 223 prices, 54 of which were for metals and various tools and implements. But 25 of the 54 were for different kinds of pocketknives. There were 15 quotations for house furnishings, 7 of which were for bathtubs. There were 4 quotations for fish, but three of these

were for salt mackerel. If in 1891 you had excluded the quotations on fish from the index, the result would have been 95 instead of 104 for that year. Even though at that time there was much more difficulty in obtaining satisfactory price quotations than now, it still remains a curious index, to say the least.

The best-known price indices in the United States today are those compiled by the United States Bureau of Labor Statistics for wholesale and retail prices and those compiled by the Federal Reserve Board. The *Federal Reserve Bulletin*, published monthly, presents monthly price changes for all the important countries throughout the world. This journal and the *Survey of Current Business* (United States Department of Commerce) are indispensable to any student of money and banking because of the wealth of statistical and other information which they contain. The indices of Professor Irving Fisher of Yale, of the *New York Times Annalist*, of Dun and Bradstreet, and of Moody, among many others, are also widely used.

The Trend of Wholesale Prices. Yearly averages of the monthly index numbers of wholesale prices, compiled by the Bureau of Labor Statistics, have been as follows since the end of the World War:

(1926 Taken as 100)

1919	138.6
1920	154.4
1921	97.6
1922	96.7
1923	100.6
1924	98.1
1925	103.5
1926	100.0
1927	95.4
1928	97.7
1929	96.5
1930	86.4
1931	73.0
1932	64.8
1933	65.9
1934	75.0

The monthly index numbers since June of 1932, the first low point of the depression, have been as follows:

(1926 Taken as 100)

June, 1932	63.9	Oct., 1933	71.2
July, 1932	64.5	Nov., 1933	71.1
Aug., 1932	65.2	Dec., 1933	70.8
Sept., 1932	65.3	Jan., 1934	72.2
Oct., 1932	64.4	Feb., 1934	73.6
Nov., 1932	63.9	Mar., 1934	73.7
Dec., 1932	62.6	Apr., 1934	73.3
Jan., 1933	61.0	May, 1934	73.7
Feb., 1933	59.8	June, 1934	74.6
Mar., 1933	60.2	July, 1934	74.8
Apr., 1933	60.4	Aug., 1934	76.4
May, 1933	62.7	Sept., 1934	77.6
June, 1933	65.0	Oct., 1934	76.5
July, 1933	68.9	Nov., 1934	76.5
Aug., 1933	69.5	Dec., 1934	76.9
Sept., 1933	70.8	Jan., 1935	79.0

As an illustration of how different groups of commodities may vary in price during a period of rapid changes the following table should be examined:

INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES FOR RAW MATERIALS, BY CLASSES [1]

(Monthly Average of 1913 Taken as 100)

	FARM PRODUCTS	ANIMAL PRODUCTS	FOREST PRODUCTS	MINERAL PRODUCTS
1919				
January	234	208	147	179
February	224	210	148	175
March	237	217	149	173
April	246	224	145	170
May	255	225	146	170
June	250	217	156	173
July	261	233	166	177
August	251	235	193	180
September	240	215	227	184
October	254	212	234	184
November	276	212	239	183
December	288	209	259	185

[1] From the *Federal Reserve Bulletin*, February, 1920, February, 1921, January, 1922, March, 1923, February, 1924.

	Farm Products	Animal Products	Forest Products	Mineral Products
1920				
January	291	213	273	190
February	278	206	315	194
March	288	200	348	197
April	304	196	367	224
May	314	179	367	234
June	301	186	363	245
July	287	184	359	256
August	259	181	351	265
September	232	186	344	277
October	191	172	339	272
November	170	159	289	246
December	155	132	283	224
1921				
January	155	119	245	220
February	145	114	225	207
March	136	116	210	197
April	126	106	205	189
May	131	104	205	188
June	125	102	204	182
July	122	109	203	177
August	123	112	200	175
September	142	104	194	172
October	134	105	193	176
November	129	103	200	178
December	120	103	196	178
1922				
January	130	109	167	178
February	140	121	166	177
March	141	122	165	178
April	145	120	167	180
May	152	122	174	202
June	146	123	186	211
July	147	130	188	241
August	138	127	191	261
September	136	132	199	236
October	147	132	204	218
November	160	129	207	209
December	161	128	210	208

	Farm Products	Animal Products	Forest Products	Mineral Products
1923				
January	164	125	215	213
February	170	123	220	207
March	174	123	227	202
April	172	123	232	198
May	167	122	226	189
June	165	119	215	184
July	154	120	209	179
August	152	125	203	177
September	163	131	196	176
October	172	122	197	171
November	179	115	196	167
December	181	115	191	165

Effects of Price Changes. Why should changes in prices be regarded as important? What is there about shifts in individual prices, price averages, or price levels that attracts so much attention and discussion? It is well known that most periods of rapidly falling prices are accompanied by business depression, bankruptcies, unemployment, and frequently labor unrest and proposals for economic reform. Why is this so? Because the present economic system is based largely on the profit-making motive. The desire for profits is one of the most important motivating forces in all economic activity. A satisfactory level of profits is a great inducement to high business activity. A low level of profits has the opposite effect. One point which should be stressed is that some of the difficulty due to price changes could be avoided were all prices to change at once and in the same proportion. It is the unevenness of price changes which is responsible for some of our troubles.

Profits depend upon the relation between costs and selling prices. If both costs and selling prices are rising, a favorable profit ratio may be maintained. But if selling prices fall, and costs do not fall as rapidly, profits tend to disappear and business becomes depressed. Many students of depressions believe that the movement of the price level is an extremely important factor in determining whether business is active or depressed. From

1929 to the end of 1932 wholesale prices of industrial products fell approximately 35 per cent, while an average of agricultural products fell by a much larger amount. Prices all over the world fell drastically, and in this international collapse of the price level must be found one reason why the depression was so severe.

Because of this disastrous price decline many proposals for monetary reform have come to the fore. The collapse of the international gold standard, the renewal of interest in bimetallism, the demand for monetary inflation by various groups, the gold-buying program and the devaluation of the dollar, the collapse of the American banking system, are all due partly to this rapid fall in prices. Farm and residential mortgages were foreclosed by the thousands. In the Middle West farmers were threatening violence, and in many areas there was actual violence. The NRA was created partly for the reason that there was a widespread desire among businessmen to put an end to destructive, or cutthroat, price competition. The Reconstruction Finance Corporation was formed to prevent receiverships and bankruptcies of railroads and financial institutions. In fact, much of the New Deal attempted to prevent further injurious effects of deflation and price declines.

Creditors and Debtors. When prices rise, the value of money falls and debtors usually find it easier to pay off their debts. The creditor suffers, because he receives money which has less purchasing power than when he made the loan. If prices fall, the debtor has great difficulty in making payments, because his income has declined, and the creditor gains. Rapid shifts in prices, then, play havoc with debtor and creditor relationships. For example, a farmer may have borrowed $5000 when wheat was $1 a bushel. It would take 5000 bushels of wheat to pay his debt. If, however, the price of wheat has declined to 50 cents when the debt becomes due, the farmer must sell 10,000 bushels to secure enough money to meet his obligation.

One comment must be added. Not all debtors and creditors will be affected in the same proportion or to the same degree. If the price rise is very great, some debtors may not find their in-

comes rising sufficiently to make their debt burden lighter. They may be required to pay such a large proportion of their incomes out in increased living expenses or current business expenses that ultimately payment of debts becomes a severe burden. Persons on fixed incomes — for example, those who live on the income from investments or annuities — may find this to be true. Railroads and public utilities may find their costs rising and their rates held down by government regulation, so that their fixed charges are hard to meet.

On the other hand, a price decline may be so great that the creditor does not maintain his advantage. Failures, bankruptcies, and unemployment may become so widespread that the creditor cannot collect a large amount of his debts. This has been a common occurrence since 1929. In other words, the effect of a *great* inflation or deflation of prices may injure certain groups of both debtors and creditors, while in a period of more moderate price movements only one of the two may suffer a loss.

When prices rise rapidly, so that the cost of living mounts steadily, fixed-income groups suffer. During 1918, 1919, and 1920 this happened and was responsible for many of the strikes and labor disturbances during those years. The long depressions of the 1840's, the 1870's, and the 1890's were replete with incidents, movements, and programs resulting from rapid or long-continued price declines. Greenbackism and the bimetallic controversy of the nineties are important examples, both being supported by large groups of debtors. It is not necessary to enlarge further upon the disastrous effects of sudden price changes. Such movements upset the equilibrium between industry and agriculture and between various industries themselves, and are responsible for all kinds of price maladjustments which destroy profit-making possibilities. It is easy to understand why control of the price level has become such an important economic and political issue. It is also easy to comprehend why so many economists believe that a study of prices should constitute the central objective of economic theory.

The Quantity Theory of the Value of Money. Probably the most widely held explanation of changes in the value of money, as

expressed in price fluctuations, is the so-called quantity theory.[1] It is one of the most misunderstood theories in all economic science, owing probably to the fact that its proponents have not always agreed among themselves. It will be presented here in the manner made familiar over twenty-five years by Professor Edwin W. Kemmerer of Princeton in his small but excellent volume *Money and Prices*.[2] Occasional reference will be made to a similar exposition by Professor Irving Fisher of Yale as found in his famous work *The Purchasing Power of Money*.[3] Kemmerer and Fisher have long been the most prominent quantity theorists in the United States. Unfortunately many critics of the quantity theory seem not to have read these two volumes in their entirety. Many of these critics actually hold views quite similar to those advanced by Kemmerer and Fisher. What they are criticizing is an old form of the quantity theory, one no longer widely held.

The quantity theory, as usually stated, asserts that, *other things being equal*, the value of money varies inversely with its supply. In other words, if everything else remains the same, the price level will rise if there is an increase in money in circulation; conversely a decline in the supply of money will bring a fall in the price level. Many economists maintain that the quantity theorist practically disregards "other things" and places almost the sole emphasis upon the quantity of money as a determinant of price changes. This, however, is a misconception. Modern quantity theorists realize that there may be times when "other things" are more important than the supply of money. What these "other things" are will be explained in a moment.

[1] Mr. White seems, in some editions of his book, to have been somewhat skeptical of the validity of this theory, but presents no satisfactory alternative. We are inclined to think that he had in mind a very old form of the quantity theory, which stressed the quantity of money to the exclusion of other factors. No modern quantity theorist would present the doctrine in such a narrow form, although many modern critics of the quantity theory do not appear to realize this. Mr. White did, however, hold that there was a rather definite relation between gold production and prices. His conclusions appear in this volume, in Chapter IV.

[2] Published by Henry Holt and Company, 1909.

[3] Published by The Macmillan Company, 1910.

Historically the quantity theory developed in a period when the circulating medium was composed primarily of gold and silver coins. Money obeys the law of supply and demand like any other commodity. An increase in the supply of money without a corresponding increase in the demand for it will lower the value of money. Therefore it will not buy as many commodities as formerly, and prices will rise. On the other hand, the chief factor affecting the value of money may come from the demand side. One of the classic examples of a fall in the value of money when the world was using little but coins as money is to be found in the great rise of prices in Spain following the importation of gold and silver from the New World during the sixteenth century.

The effect of changes in the supply of money upon prices was recognized centuries ago. As Kemmerer says: "This theory, held by Locke, Hume, and Adam Smith, elaborated by Ricardo and Mill, and in recent years so ably defended in our own country by the late Francis A. Walker, dates in a vague form as far back as the time of the Roman jurisconsult, Julius Paulus. From the infancy of economic science to the present time it has been the most generally accepted theory of the value of money."[1]

Ricardo. David Ricardo, whose book *Principles of Political Economy and Taxation* was published in 1817, summarized the theory in this form: "That commodities would rise or fall in price, in proportion to the increase or diminution of money, I assume as a fact which is incontrovertible. . . . The value of money, then, does not depend upon its absolute quantity, but on its quantity relative to payments which it has to accomplish." Attention must be paid to that part of the last sentence which reveals that *it is not quantity alone* that determines the value of money, but "quantity relative to payments which it has to accomplish." This is an important point and must not be overlooked.[2]

[1] *Money and Prices*, pp. 1–2.

[2] For a careful study of the early development of the quantity theory see *Monetary Theory before Adam Smith* (Harvard University Press), by Arthur E. Monroe of Harvard. It is interesting to learn from Monroe's thorough research how widely this explanation of changes in prices was accepted even before the last quarter of the eighteenth century.

Mill and the Quantity Theory. John Stuart Mill, whose *Principles of Political Economy* was published in 1848, wrote in Book III, "The value of money, other things being the same, varies inversely as its quantity." But he did not stop with that. He went on to say, "The amount of goods and of transactions being the same, the value of money is inversely as its quantity multiplied by what is called the rapidity of circulation. And the quantity of money in circulation is equal to the money value of all the goods sold, divided by the number which expresses the rapidity of circulation." Since Mill was primarily a synthesizer of the work of earlier students of monetary theory, and originated little in this field himself, it is obvious that emphasis upon the *quantity* of money alone as a determinant of prices had practically ceased well over a hundred years ago. The rapidity of the circulation of money came to be recognized as a factor of importance.

Mill continues:

> The amount of purchasing power which a person can exercise is composed of all the money in his possession and due him, and of all his credit. . . . Credit, in short, has exactly the same purchasing power with money; and as money tells upon prices not simply in proportion to its amount, but to its amount multiplied by the number of times it changes hands, so also does credit. . . . Credit which is used to purchase commodities, affects prices in the same manner as money. Money and credit are thus exactly on a par, in their effect on prices.

Credit, therefore, and its rapidity of circulation must also be considered.

With regard to paper money of an inconvertible type Mill thought, "The immediate agency in determining its value is its quantity." This has been widely criticized and justly so, because the rapidity of circulation of inconvertible paper money has, as revealed by the experience of a number of countries during and following the war, a great effect on prices.

According to Lionel D. Edie, Mill's doctrine presents "the basic elements of the classical quantity theory. They are not for the most part original with him, but they are for the first time as-

sembled by him in a comprehensive, unified, systematic theory of value."[1]

The Equation of Exchange. Kemmerer and Fisher have each expressed the important components affecting prices in the form of an algebraic equation. Their equations are similar, but since Fisher's is the one more generally used, we will follow his. The equation is formulated thus: $MV + M'V' = PT$. The meaning of the letters is as follows:

M is money in circulation, and does not include bank reserves or money in the government treasury.

M' is credit, as expressed in checking accounts at banks.

V is the velocity of circulation of money. It is computed by dividing the total amount of payments in money during a certain period of time by the average amount of money in circulation during the period.

V' is the velocity of circulation of bank deposits. It is ascertained by dividing the total amount of payments by check (bank debits during a period of time to individual accounts) by the average amount of money on deposit during that time.

P is an index number of prices.

T is the total volume of trade.

How is this equation developed? In this way. It is obvious that the amount of money and deposits multiplied by their respective velocities (the number of times they change hands) must be equal to the prices of the articles sold multiplied by the number of such articles. In other words, the amount paid must be equivalent to the amount received. Therefore what the equation states is a truism. It can, moreover, be interpreted in the light of the law of demand and supply as relating to money. $MV + M'V'$ represents the total monetary supply. PT represents the monetary demand, since the total value of goods sold constitutes a demand for money or checks on deposits. Therefore monetary supply is equivalent to monetary demand.

One question may be raised. Money and deposits pass from one person to another, and provision is accordingly made in the

[1] *Money, Bank Credit and Prices*, p. 189. Harper & Brothers.

equation for their velocities of circulation. But do not commodities also have a velocity of circulation, since many goods pass from the manufacturer to the consumer in unchanged form? Professor Arthur Marget of the University of Minnesota has devoted considerable time to the study of this factor. Kemmerer concluded that since the commodity, in passing from the manufacturer to the consumer, gains new utilities, such as place or time utilities, "it becomes a new commodity at each exchange." Hence its velocity of circulation becomes unity and has no effect upon the result.[1]

If we divide through by T, the equation then reads

$$P = \frac{MV + M'V'}{T}.$$

The price level varies directly, then, with $MV + M'V'$ and inversely with T. These are the five chief factors affecting prices, and none of them can be ignored.

It is frequently argued that this equation of exchange is not the same as the quantity theory of money, but is a quite different explanation. This is a debatable position. Edie states, "The salient features of the quantity theory may be expressed in the form of an algebraic equation," and then proceeds to explain the equation of exchange.[2] Kemmerer says, "The formula will be recognized as an algebraic expression of the quantity theory."[3] Fisher asserts, "This equation expresses algebraically the old quantity theory of money, with some elaboration."[4]

If Gold and Silver Coins Were the Only Money. It may be easier to explain the equation of exchange if we start with an economic system in which nothing but gold and silver coins are in circulation. This is the method used by Kemmerer. In such a system it is fairly easy to see that people have come to place a certain valuation upon commodities in terms of gold and silver coins. They have become accustomed, through a price-making process

[1] *Money and Prices*, p. 15.

[2] *Money, Bank Credit and Prices*, p. 189.

[3] *Money and Prices*, p. 13.

[4] Proceedings of the Twenty-third Annual Meeting of the American Economic Association, April, 1911, p. 38.

which has emerged through past years, based partly on their subjective valuation of gold and silver in comparison with commodities, to giving certain amounts of gold and silver coins for commodities. Now suppose a change takes place in the number of commodities produced and offered for sale, or in the amount of gold and silver coins in circulation or in their velocities of circulation. The relative value of commodities and coins will change and will reveal itself in price changes.

Suppose, for example, that new gold or silver discoveries have resulted in private persons' bringing more bullion to the mint for coinage; these persons will have more money with which to purchase commodities. Or the government may own the new mines or the additional bullion produced, and coin the new money and put it out into circulation in payment of its expenses. Those who receive it will have more money to spend and by competing with one another in the purchase of commodities will force prices up. This assumes that there has been no change in the amount of commodities produced and offered for sale.

In this case the equation would be expressed in a simpler form, $PT = MV$ (monetary demand equals monetary supply). Velocity of circulation of the coins would therefore be a factor in determining prices in this system, as well as in the more complicated monetary system to which $PT = MV + M'V'$ applies. What Fisher and Kemmerer have done is to expand the equation of exchange until it makes allowance for bank deposits and their velocity. An understanding of how $PT = MV$ applies in a simple monetary system will be of assistance in comprehending it in its more complete form.

Does the Equation Prove Causation? One of the chief criticisms of the equation is that it does not prove the price level to be the resultant of the other factors. The equation may be rearranged in any manner desired, and it has been frequently argued that P may just as accurately be designated as the cause of changes in M, V, M', V'. Mathematically this is true, but deductive reasoning must be resorted to in order to reach a conclusion. Fisher maintains that P is the one passive factor, but only in *normal* circumstances and aside from transitional periods. He realizes

that in short periods of time P may not always be the one passive factor. And he does not disregard the effect of changes in other factors than M, for after declaring that P must vary in direct proportion to M he writes, "This does not assert, of course, that during any historical period M will be the only factor affecting P for it usually happens that all of the five factors in the equation which do affect P will change simultaneously." Each of the five factors will themselves be affected by other things, which will be mentioned shortly.

In Chapter XII of his *Purchasing Power of Money*, Fisher, after complimenting Kemmerer upon his earlier investigation, again argues:

> Most other writers who have attempted to test the quantity theory statistically, seem to have been animated by a desire not to give it a fair test, but to disprove it. They have carefully avoided taking account of any factors except money and prices. It is not to be wondered at that they find little statistical correlation between those two factors.

Again he states:

> If the opponents of the "quantity theory" who attempt to disprove any relation between money and prices by pointing out the lack of statistical correspondence between the two, mean merely that other factors besides money, M', V, V', T, change from time to time and that therefore the level of prices does not in actual fact vary exactly with the quantity of money, their contention is sound. . . . If anyone has ever really imagined that the price level depends solely on the quantity of money, he should certainly be corrected.

With respect to the question of causation Kemmerer has this to say:

> The question is often asked whether changes in the monetary supply are causes or effects of changes in the general price level. Do general prices rise because the monetary supply increases or does the monetary supply increase because general prices rise? Hadley is undoubtedly right when he asserts that "changes in the quantity of money . . . are at once a cause and an effect of changes in the general price level." Given, for example, a country with a certain monetary supply, and a certain

supply of commodities being exchanged; an increase in the monetary supply will be followed by a rise in the general price level, the rise will destroy the equilibrium previously existing between the price levels at home and abroad, and between the monetary and merchandise values of gold; gold will tend to flow out of the circulation, seeking a better market in other countries or in the arts at home. Decrease the monetary supply, leaving the commodity supply unchanged, and prices will *per contra* fall until the higher value of money thereby expressed shall lead in like manner to an increase in the monetary supply and the establishment of a new equilibrium of prices. In these cases a change in the monetary supply results in a change in the general price level, which in turn reacts upon the monetary supply. On the other hand, assume a condition of equilibrium, leaving the monetary supply unchanged; the increased commodity supply will cause a fall in the general price level, which will in turn lead to an increase in the monetary supply and the establishment of a new equilibrium of prices through the influx of new money from abroad, or from the mines or the arts at home, or through an increase in the rapidity of monetary circulation. Decrease the commodity supply, leaving the monetary supply unchanged, and the opposite results will follow. In these latter two cases a change in the commodity supply affects general prices and through them alters the monetary supply.[1]

It will be seen that this explanation, which is based upon international factors, depends upon relative freedom of trade and unrestricted flow of gold into and out of the country. This leaves unsettled the question whether a change in M, M', V, V', or T might follow a change in P which had been induced by domestic factors. In most cases it is probable that the forces operating on P had previously affected M, M', V, V', or T. Like Fisher, Kemmerer emphasizes the fact that it is not money alone that is the cause of variation in the price level. A change in the velocities of circulation of money or bank deposits, or in the volume of bank deposits or the volume of trade, may be the initiating factor. Looking at the equation itself, an impartial observer might conclude that P could just as well change first and M, M', V, V', T, change later. Mathematically this is true, but the question should next be asked whether or not the factor assigned as a cause of a

[1] *Money and Prices*, p. 59.

change in P may not, as we have just said, have affected P because it first induced a change in M, M', V, V', or T.

It next becomes important to determine what the factors are which might themselves cause changes in M, M', V, V', or T. Fisher lists the factors affecting M as the importation or minting of the precious metals, cheapening the costs of production of these metals, and the issue of bank notes or paper money. Affecting M' will be changes in the banking system, an increase in bank loans, which will bring an increase in deposits, or a relative variation in the use of checks. V and V' will be affected by changes in the habits of people as to thrift or hoarding, the use of charge accounts and checking accounts, systems of payments, transportation, and population. Finally T will depend upon the presence and exploitation of natural resources, division of labor, the technique of production, accumulation of capital for investment, the state of the transportation system, freedom of trade, the character of the banking system, and business confidence. In other words, a myriad of factors may be responsible for changes in M, M', V, V', or T, and through them variations in P.[1]

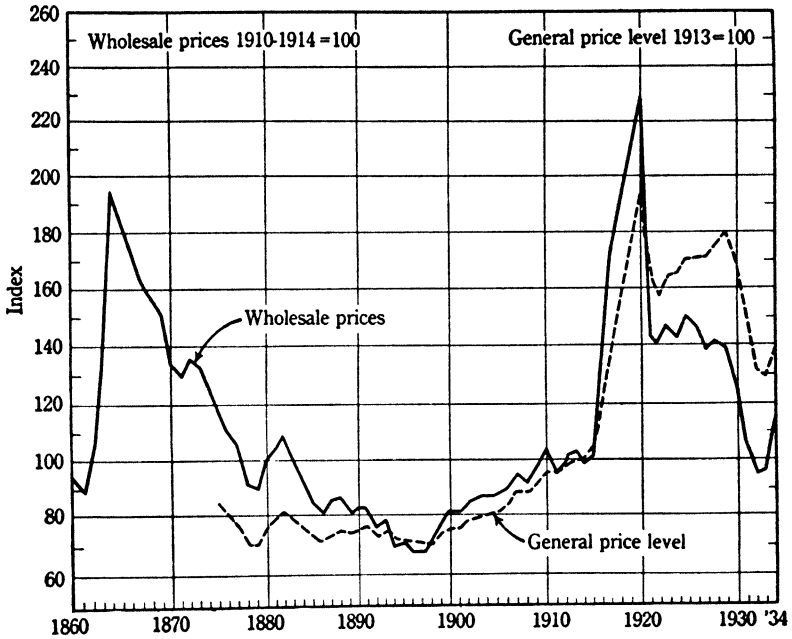
Kemmerer places great emphasis upon the state of business confidence, especially as it affects V and V'. In other words, a decline or increase in confidence might cause V and V' to go down or up. Therefore, when it is argued that P might be affected first, we shall be forced to answer that it might be, but it is likely that the cause to which responsibility is assigned is one which has been listed above and is influencing M, M', V, V', or T first.

One word of caution must be added. P is an index of a large number of commodities. Some persons criticize the quantity theory because, they say, it is impossible to show that changes in *individual* prices can thus be explained. No one has ever contended that they could be. What the quantity theory endeavors to explain is the reasons not for changes in *individual* prices but for changes in the *average* of a large number of prices.

Other Objections to the Quantity Theory: the Theory cannot be Proved Statistically. While Kemmerer, Fisher, and Gustav Cassel

[1] Fisher, *The Purchasing Power of Money*, pp. 74–88.

of the University of Stockholm have endeavored to prove the validity of the theory statistically, the results of their labors have not been satisfactory. The reason is obvious. P, strictly speaking, is the average of the prices of *all* the things that money and checks are spent for. Therefore to select a wholesale price index and call it



GRAPH OF WHOLESALE PRICES AND GENERAL PRICE LEVEL

Sources: wholesale prices from the United States Bureau of Labor Statistics; general price level from Standard Statistics

P is not accurate, because it is only a part of P. If one could isolate the M, M', V, V', and T that apply to wholesale trade only, possibly some result could be reached. But to use the M, M', V, V', and T which apply to retail purchases (including services etc.) as well and test the equation by what happened to wholesale prices is not justifiable.

Fisher realized this, for in reviewing *The Measurement of Ex-*

change Value, by Correa Walsh, in the *Yale Review* as far back as 1902, he wrote:

> If we are discussing the sense in which the level of prices is connected with the quantity of circulating medium . . . we must include every price, wholesale and retail; we must include prices of all commodities, even land, securities, and human services, and we must weigh these, not in proportion to the amounts consumed, but in proportion to the amounts exchanged for the circulating medium.[1]

This is just the type of index number upon which Carl Snyder of the Federal Reserve Bank of New York has been working for years. He calls it a *general* price index, and it is most important to realize that Snyder's index moves frequently in different directions and by different magnitudes from the wholesale price index constructed by the United States Bureau of Labor Statistics. For example, from 1922 to 1929 Snyder's index was slowly rising, while that of the United States Bureau of Labor Statistics showed a slight declining tendency. In this index Snyder uses the following items and gives them these respective weights:

	Weight
1. Industrial commodity prices at wholesale (nonagricultural prices, U. S. Dept. of Labor)	10
2. Farm prices at the farm (30 commodities, U. S. Dept. of Agriculture)	10
3. Retail food prices (43 articles in 51 cities, U. S. Dept. of Labor)	10
4. Rents (cost of housing in 32 cities, U. S. Dept. of Labor)	5
5. Other cost-of-living items (costs in 32 cities, U. S. Dept. of Labor)	10
6. Transportation cost (railway freight receipts per ton-mile)	5
7. Real-estate values (urban, Fed. Res. Bank of N.Y.; estimated value per acre, U. S. Dept. of Agriculture)	10
8. Security prices (preferred and common stocks and high-grade bonds, Fed. Res. Bank of N.Y., from Standard Statistics)	10
9. Equipment and machinery prices (Fed. Res. Bank of N.Y., from producers)	10
10. Hardware prices (National Retail Hardware Association)	3
11. Automobile prices (weighted, 6 makes of passenger cars, Prescott)	2
12. Composite wages (7 items, Fed. Res. Bank of N.Y.)	15

Strictly speaking, then, an index like Snyder's should probably be the one used to test the equation of exchange. Even then there are difficulties, because accurate figures on the velocity of

[1] Quoted in *Money and Prices*, p. 134.

circulation of money (V) are not available. Furthermore, no one knows whether M is the correct figure, because part of M may be lost or hoarded. For money that is hoarded the velocity (V) is zero, and it has no effect on P. M' and V' are ascertainable with a high degree of accuracy, but T is not. T is not the total volume of production; it is the volume of commodities actually exchanged, and no one knows exactly what the total comes to. For these reasons an accurate statistical proof of the equation cannot be expected.

Prices are Determined first by Individual Agreement, and then M *and* M′ *are Secured to Pay the Bill.* This is a very common argument and asserts that prices for commodities sold are always fixed by individual contract or bargaining before businessmen approach their banks for loans, or buyers secure the money to make the payment. Superficially this objection may seem to be sound. Let us examine certain cases. Many retail purchases are made for cash; many others are paid for by checks on already existing deposits; others are bought on credit because the buyers hope or know they will have the means to pay when the bill falls due. In none of these cases, with a few exceptions, would purchases be made unless the buyers had either the money or bank deposits, or expected to have one or the other when the bill had to be settled.

With business enterprises the case is slightly different. But the objections raised ignore the fact that banks are, in normal times, in the habit of establishing lines of credit for their customers. In other words, the businessman makes a contract because he has the money on hand or on deposit, or because he can borrow from a bank which has previously told him that he can borrow up to a certain amount. No sound business would sign a contract to buy commodities unless it were certain it had the means to pay on hand or in sight.

As Edie says:

> This attack upon the quantity theory is not convincing, largely because it brushes aside the factor of the money-spending power of the buyer as an influence in deciding how much he will pay and how much he will buy at the given price. . . . Hence, if the price-making process is

antecedent to the actual exchange of money for goods, so the money-spending power of the community is antecedent to the price-making process.[1]

V, V′, *and* T *Vary proportionately and hence Play Little Part in Determining Price Variations.* This objection is based on the contention that V, V', and T vary together so as to counteract any influence each might have upon P. Therefore the equation resolves itself into $P = M + M'$, which is shown not to be true historically. If this objection is true, the equation of exchange must be discarded as a satisfactory explanation of variations in the price level.

Several American economists are convinced that the objection can be sustained. But it may be doubted whether their evidence is convincing, because of the difficulties of obtaining proper statistical information. On the other hand, several British economists, after long and careful investigation, have reached just the opposite conclusion. Their results, they claim, show that V, V', and T do not vary proportionately, and therefore V, V', and T may act as initiating causes of variations in P. The debate cannot be settled with finality, but most modern quantity theorists are inclined to believe that the British position is sounder. This may, of course, be due to their *hope* that it is sounder. An appeal must be taken to deductive reasoning rather than inductive evidence, and when this is done it is difficult to believe that V, V', and T do vary proportionately and by the same amounts. On this question an active controversy is now being waged.

If True at all, the Quantity Theory Is True only in the Long Run. This is a common criticism. Many critics admit that there is much truth in the quantity theory as an explanation of the secular (long-time) trend of the price level. They reject it as an explanation of the short-time fluctuations in prices. As Bradford says: "If we assume production to be constant, population constant, and no far-reaching changes in the organization of the monetary system, we shall be safe in adhering to the quantity

[1] *Money, Bank Credit and Prices*, p. 199. This was in reply to an argument to this effect by J. Laurence Laughlin, one of the most noted critics of the quantity theory. Laughlin was an advocate of the bullionist theory.

theory. As a long-run theory of the normal value of money, it will hold water."[1] We have shown, however, that modern quantity theorists have interpreted the theory and the equation of exchange in a distinctly liberal manner. As so interpreted there seems little reason why it cannot offer a fairly satisfactory explanation of short-run variations in the price level. It is not contended that the equation of exchange makes allowance for every single factor that might enter the picture. Neither is it contended that P must always and at all times, under all conditions, be the one passive factor. Fisher claims this to be true only in *normal* times. M, M', V, V', and T act and react upon one another, and temporarily some factor might possibly affect P first; but by and large the quantity theory as expressed in the equation of exchange contains much more truth than error.

The Theory does not Explain the Reason for Changes in the Value of Inconvertible Paper Money. Here is to be found one of the greatest misconceptions of the quantity theory. Many critics contend that quantity theorists believe that the *only* cause of a change in the value of inconvertible paper money is its *quantity.* Among those who have revealed that they have, at times, labored under this misconception are Wesley C. Mitchell, H. Parker Willis, B. M. Anderson, Jr., the late J. Laurence Laughlin, and the late Russell D. Kilborne. The student will promptly ask how these able and prominent economists could be subject to such a misconception, if it really is one. The answer probably lies in the fact that they can cite several early quantity theorists of nearly a hundred years ago to prove their case. That must be admitted, but the quantity theory as expounded by its modern upholders does not contain this erroneous belief.[2] The modern quantity theorist places great stress upon the velocity of circulation of inconvertible paper money as an important factor in determining its value. This velocity depends largely upon the confidence of people in the money; and if large quantities are issued, the velocity may speed up by large amounts if the holders of the money desire to spend

[1] F. A. Bradford, *Money*, p. 209. Longmans, Green & Co.

[2] See Kemmerer's reply to Mitchell, Laughlin, and Willis on this point in *Money and Prices*, pp. 30, 31, 40–42.

it in a hurry, fearing a decline in its buying power. Recent experience, especially in Germany, substantiates this conclusion.

The Quantity Theory Is a Static Theory. This may have two meanings. One is that the quantity theory deals only with a fixed point of time. The other is that, under certain assumed conditions of equilibrium, it explains only some normal long-run tendency. The first meaning gives an unreal interpretation of the quantity theory, one that no modern quantity theorist advances as a complete explanation. Probably the confusion arose because Fisher, at times, places some stress upon this concept. But this is only a partial presentation of Fisher's views. It can rightly be charged that occasionally Fisher is somewhat mechanical in his exposition, but he does not limit his treatment as a whole to what happens at a single point of time. A similar answer may be made to those who argue that the quantity theory explains only long-run tendencies. Correctly interpreted, it applies also to the short run. The explanation may not be a complete one, but it probably accounts for the major factors at work.

The Quantity Theory Is not in Accord with the Facts. Among those who have advanced this argument are Dr. B. M. Anderson, Jr., economist of the Chase National Bank of New York, and the late Russell D. Kilborne of Dartmouth. Anderson writes:

> It is one of the vices of the quantity theory of money that it tends to check realistic analysis and to arrest thinking. Seeing prices high in 1919–1920 and seeing the volume of money and credit expanded, most quantity theorists felt that the whole matter was explained. The problem was solved. No further thinking was required. Many of them confidently announced that we were on a permanently higher level of prices. They made no distinction between the price phenomena of gold standard countries and the price phenomena of countries on an irredeemable paper basis. They drew no qualitative distinctions. . . .
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> But the phenomena were not explained by this reasoning, and the predictions based on the quantity theory collapsed utterly when prices dropped 44 per cent in the United States in 1920–1921, with corresponding drops in most other parts of the world. The writer has been at pains to read discussions written during this period by many of the adherents of this school of thought, and in them he finds again and again a minimum of reference to existing industrial and trade facts, and all emphasis

centered upon the figures of prices, on the one hand, and of money and bank deposits, on the other hand.

It is just to state that many economists who give nominal assent to the quantity theory as an abstract formula do not allow it to blind them to facts, and do not rest serious forecasts or practical policies primarily upon it.

The breakdown of the quantity theory predictions of 1919 and 1920 regarding prices seems to have made very little impression upon the confidence of the adherents of this school in their principles. Between May of 1920 and December of 1924 the volume of monetary gold in the United States increased 73 per cent and the net demand deposits of reporting member banks increased 14 per cent. Commodity prices at wholesale, however, dropped 37 per cent during this period. During the same period changes occurred in British money, credit and prices which the quantity theorists cannot possibly explain. French money, credit and prices show even greater deviations from the quantity theory rules during this period.[1]

Kilborne attacks the quantity theory in practically the same words and upon the same ground.[2] In earlier years similar arguments had been advanced by J. Laurence Laughlin, William A. Scott, H. Parker Willis, and in part by Wesley C. Mitchell. We must repeat here what we emphasized in the first part of this chapter, that such criticisms are based upon a narrow interpretation of the quantity theory. It is true that in 1919 and 1920 Irving Fisher, among others, believed wholesale prices would not greatly decline, but mistakes in forecasting should not invalidate an explanation which was never expounded or advocated as a forecasting device. Anderson cannot be criticized for objecting to forecasts of this type.

When, however, Anderson and Kilborne state that the quantity theory is wrong because Federal reserve notes outstanding increased during the crisis year of 1920, while wholesale prices fell, they are laboring under a misunderstanding. The same conclusion

[1] "The Gold Standard versus 'A Managed Currency,'" *Chase Economic Bulletin*, Vol. V, No. 1, March 23, 1925, pp. 7–8. See also Vol. XII, No. 2, May 16, 1932, of the same publication, "The Goldsborough Bill and Government Security Purchases of the Federal Reserve Banks."

[2] *Principles of Money and Banking*, Chap. IX. McGraw-Hill Book Company.

applies to their notion that an increase in the gold supply and deposits during a period of falling wholesale prices vitiates the quantity theory. This implies that modern quantity theorists ignore V, V', and T. The modern quantity theorist places great stress upon V' and T, particularly, and believes that a large portion of the explanation of what happened in 1920 and 1921 can be found in the rapid decline of V' during those years. Anderson is probably correct in his contention that certain psychological factors may have been actively at work on P at the same time, tending to force it downward, independently of V'. But no modern quantity theorist would conclude that, under our present banking system, a large importation of gold must automatically bring an increase in wholesale prices. It depends upon what use is made of the gold. Finally it is most interesting to note that after Kilborne has rejected the quantity theory, which he states in its narrowest form, he outlines the "true" explanation of changes in the value of money, *the demand-and-supply theory*. But the quantity theory as explained in this chapter, and by most of its adherents, *is* a demand-and-supply theory.

In the drastic fall of prices in 1920 and 1921 there were many forces at work, but most of them can be accounted for by factors in the equation of exchange. Probably one reason why loans and deposits continued to rise was that there was a great demand on the part of borrowers for funds to meet outstanding obligations.

That there is justification in placing great reliance upon changes in V', the velocity of circulation of bank deposits, may be shown by examining such changes from 1921 to 1933. From 1921 to 1925 in New York City V' varied between 45 and 60 a year. It rose to 120 in 1928 and 1929 during the great stock-market boom. It then fell to around 20 in early 1933, a tremendous drop. In a hundred and forty cities outside New York V' averaged between 30 and 35 to 1925, and then rose to 45 in 1928 and 1929, declining to around 23 in late 1932. For a while, late in 1932, V' was less in New York than in other parts of the country, a truly surprising phenomenon. Certainly a decline in V' played a large part in the fall of prices beginning in 1929.

One final criticism of Kilborne and Anderson. They seem to

believe that P means a wholesale-price index, a common misconception. It has already been emphasized that P is an index of all the commodities, services, and other things that money and checks are spent for. Therefore, in the years mentioned by these two economists, P should include prices of stocks, real estate, wages, etc. Fisher, Cassel, and Kemmerer have been partly responsible for this confusion by their attempts to prove the quantity theory statistically. Finally it must also be remembered that what happens to T is of great significance.

Another sense in which M may be an effect of P should be mentioned. An increase in $M'V'$ may be driving prices upward. As prices rise, more hand-to-hand currency may be needed to purchase goods at the higher price level. For instance, people may draw out a larger amount of actual cash or notes from the banks for this purpose. Therefore an increase in money in circulation may be partly due to a rise in prices, itself induced by other causes. Some economists maintain that the amount of M will determine M', because M is used as a reserve for M' by banks, and the amount of M will set an upward limit for M'. There is truth in this argument too, obviously, but it must not be forgotten that, under central banking systems, banks can secure more reserves by rediscounting. To repeat, M, V, M', V', and T act and react upon one another.

Conclusions on the Quantity Theory. What are we, then, to conclude? Namely this, that Steiner was right when he wrote: "Often questioned, often modified, and the subject of voluminous and at times sharp controversy, it [the quantity theory] has in general outline maintained itself. Its critics have been many, its rivals few."[1] This is in direct contrast to the statement of Lauchlin Currie of Harvard who, in his recent book *The Supply and Control of Money in the United States*, speaks of "the almost universal abandonment of the quantity theory of money."[2] Here, again, the quarrel seems to be over the correct interpretation of the theory. We have nothing more to add on that point. If the quantity theory is almost universally abandoned, why did the

[1] W. H. Steiner, *Money and Banking*, p. 794. Henry Holt and Company.
[2] Page 3. Harvard University Press.

late Allyn A. Young of Harvard and the University of London, who at the time of his death in 1929 was generally recognized as one of the foremost American authorities on such matters, make the following statement:

> No intelligent person who has given any attention to the matter any longer doubts that there is a fairly dependable relation between the amount of a country's currency and the purchasing power of a currency unit. An inquirer's time and energy can be given more profitably to problems which as yet have not been so fully disposed of.[1]

The quantity theory has the misfortune of being badly named. The name implies that emphasis should be placed upon the *quantity* of money. However, as we have seen, not only M but M', V, V', and T all have great significance, and they all act and react upon one another in a manner which cannot be discovered with exactness. It is not contended that it is the complete or only explanation of changes in the value of money. It *is* contended that there is at present no opposing explanation so clearly outlined and accurately defined as to be a satisfactory substitute for the quantity theory. Attempts are being made by a number of authorities to construct a more satisfactory theory. So far their efforts have not been crowned with success, although sometime in the future they may be. The quantity theory may not be thoroughly satisfactory, but it is, in our opinion, the best we have. It contains, we believe, more truth than error, and therefore cannot yet be thrown aside, because we have no more satisfactory substitute.

Recently there appeared a brilliant and imposing volume on *German Monetary Theory*, by Howard S. Ellis of the University of Michigan. His chapters on the quantity theory are thorough and profound, and his conclusions might well be quoted as the final portion of this discussion:

> I do not conceal a predilection toward regarding quantity theory causation as more basic and general than the opposite, but this conviction has no claim to significance. . . . In general, the opposition between quantity theorists and their critics may be lessened by the following considerations. (1) Quantity and velocity of money and credit are some-

[1] Preface to *The French Franc* (p. xi), by Eleanor Dulles. The Macmillan Company.

times a cause, sometimes an effect. The progress of prices during moderate inflation and the breaking of boom periods seem to reveal the former, while hyper-inflation and the period of extreme cyclical depression and beginning recovery reveal the latter. (2) The monetary and real members of the equation often seem to interact upon one another so intimately that cause and effect are indistinguishable. . . . I see no reason why one force could not for a time preponderate, giving way then to the other; P T, for example, could advance under a seasonal upswing, while M V, according to a conception which we shall encounter with Machlup, responding first as effect, becomes a cause of cyclical advance by its inelasticity against the seasonal downswing of P T. (3) Even where prices and trade assume chronological priority, money volume and velocity supply their "essential condition"; for purposes of economic control, if the development may be partly managed through the "essential condition," it would be overly fastidious not to regard the condition pragmatically as a cause. (4) Some critics of the quantity theory apparently take the peculiar position that money cannot be a true cause because it is a mere pawn in a game in which human decisions present the real causes. . . . Value is of course something felt and acted upon by human beings; but a large quantity of money may be just as truly a cause of its low value as a large crop the cause of a low value of potatoes.[1]

[1] Page 195. Harvard University Press. Some readers may wonder why we have given no elaboration of the monetary doctrines of D. H. Robertson, R. G. Hawtrey, A. C. Pigou, and John Maynard Keynes, who, among many others, especially the German and Austrian economists, have for some years been busily engaged in reconstructing the equation of exchange and monetary science. This is not because we have not given considerable time to the study of and to an attempt to teach the cash balances, unspent margin, and income approach to monetary theory. We suspect others have experienced a difficulty similar to that which we have encountered. It is extremely difficult to state these doctrines in a simple manner, one which will be comprehended by the ordinary person or average student. This difficulty has become greater since the appearance of what will be generally regarded as a historic work, the volume on *German Monetary Theory*, by Howard S. Ellis. A careful study of this treatise has created so much doubt in our minds regarding what should be written or taught with respect to substitutes for or improvements upon the quantity theory that we feel this matter must be left in the hands of persons who may see their way through the maze better than we do. We urge upon those who have rejected the quantity theory, or are confident that they have a better one, to study, most carefully, the volume just mentioned.

In *Currency and Credit* (Longmans, Green & Co.), R. G. Hawtrey has

Inflation in Wartime and After. There is now (1935) a widespread feeling that the United States may be unable to escape a bad monetary inflation. The reason for this state of mind is that the national government is spending huge sums upon the relief of the unemployed and all manner of public agencies and construction. The national debt, which had grown from slightly over $1,000,000,000 in outstanding bonds in 1914 to over $26,000,000,000 in 1919, was reduced to approximately $16,000,000,000 in 1929. This was an achievement of no mean significance. We realize now, however, that if income taxes had not been reduced during the postwar years, several more billion dollars' worth of bonds could have been retired. Soon after the depression began to deepen in 1930, the national debt in bonds outstanding again began to grow, until by early 1935 the total reached well over $28,000,000,000, the highest on record. Here is an increase of approximately $12,000,000,000 in debt between 1930 and 1935. It would not have been possible had not banks invested heavily in these bonds. Approximately 50 per cent of the national debt is now held by banks, including the Federal reserve banks.

elaborated upon the doctrine of the "unspent margin." The unspent margin is equal to the difference between all incomes received by people and the total amount of their expenditures. It is made up of cash on hand and bank deposits. Under this concept the demand for money is represented by the amount of cash and deposits which people believe it necessary to hold in order to make their expenditures regularly and on time. It is this demand for money to hold which sets the value of money. Hawtrey says, "The wealth value of the monetary unit is inversely proportional to the size of this *unspent margin* of the community" (p. 34). Use is made of this concept to explain the reason why an increase in actual money or deposits outstanding may not bring higher prices, since people at times come to hold larger amounts instead of spending them immediately. But, as we have expounded the quantity theory, this can be accounted for by changes in V or V'. Money and bank deposits kept on hand or hoarded have a velocity of circulation equal to zero. Critics who have attacked the quantity theory on this point seem to have missed this important fact, that part of M and M' may have a V and V' of zero, and therefore may not be affecting prices at that time.

This does not mean that we reject the doctrines of the monetary theorists just mentioned. We feel simply that they are still in such a process of transition that an attempt to describe them here would result in great confusion in the mind of the reader.

Reasons for the Increase in Debt. In wartime such an increase is a common occurrence, and also in immediate postwar periods, but in peacetime it is unusual for a government's debt to mount so rapidly. What is the reason for this situation? Briefly it arises from the fact that the expenditures of the national government have constantly exceeded its income during the past four years. The government found it difficult to balance its budget, because tax receipts declined during the depression and it was next to impossible, for political reasons, to reduce expenditures by sufficiently large amounts. A large portion of the government's income is paid out in the form of interest on its debt and pensions to veterans, and in the maintenance of the army and navy. If a cut is to be made, it must be made on certain specific items, and this is where the trouble comes. Any proposed reduction promptly leads to political repercussions.

To complicate the matter the government has been forced to take over a large part of the financial burden of unemployment. Private charity broke down, the burden being too large, and cities and states could not raise sufficient sums to meet the needs of relief. Furthermore, the government undertook to institute recovery from the depression by a large program of spending, on the theory that what was needed was an increase in consumers' incomes. If it had not been for this increase in governmental spending, the budget might have been brought almost in balance. But once the program was launched, it was extremely hard to retrench. Political pressure from many groups made it necessary to pay attention to their demands and spend money in a way which they thought would assist them. This is one of the greatest problems a democracy has to face. When those who have political power demand financial assistance, it is hard to refuse them.

Governmental Financing of Emergencies. A government raises money in one of three ways: (1) by taxing; (2) by borrowing from (that is, by selling bonds to) individuals, institutions, banks, and central banks; (3) by printing paper money in the form of government notes and paying its expenses with them. In ordinary times taxation raises sufficient sums for most governments. Short-time borrowing may be resorted to from time to time because of

the lack of coincidence between tax receipts and expenditures. When taxation does not bring in sufficient funds, long-time borrowing is utilized. If expenditures can be reduced, the budget may again be balanced. If they increase, however, a larger number of bonds will be marketed. No use is generally made of the third device, printing and issuing paper money, until the government's credit has been impaired to the point where it becomes increasingly difficult to sell bonds.

In time of war governmental expenditures must increase rapidly. It takes time to pass new tax laws; it takes longer for the tax receipts to pour in. But funds must be raised at once, and therefore large bond issues are immediately floated. These, during the World War, were sold in vast amounts to people who drew checks upon their deposits and turned the proceeds over to the government. The government then deposited these checks in banks and drew upon the balances to pay its bills. This method of financing causes little difficulty. Sometimes people are encouraged to borrow from their banks in order to buy bonds. The bank creates a deposit credit against which the individual draws a check, and the deposit passes to the control of the government, to be spent as it pleases. This may lead to a great increase in bank credit, and the government receives the funds it needs through this process.

Another method, frequently utilized during the World War, was for the government to borrow directly from a central bank. In this case the government turned over its bonds to the central bank, and the bank placed a deposit to the credit of the government, against which the government might draw. In some cases, however, the government received the proceeds of its borrowing in central-bank notes, which were then used by the government to meet its bills. The number of cases in which governments actually printed their own money during the World War were few. In most instances recourse was had to borrowing from individuals and commercial or central banks.

What Is Inflation? It is well known that war-financing in all warring and some neutral nations led to a considerable rise in the price level. What happened was that the process just described

created funds which the governments disbursed for war expenditures. When the governments entered the world markets to buy munitions, uniforms, equipment, food, etc. for their armies and navies, this direction of increased buying power against the supply of goods forced a rise in prices. This rise in prices has generally come to be designed as *inflation.*

Inflation and deflation are terms which are used in many ways. But, as we prefer to use them, we would define inflation as *any general rise in the price level* and deflation as *any general fall in the price level.* Some authorities may prefer to define inflation as a general rise in prices brought about by a more rapid rate of increase in the volume of money or bank deposits than in production and trade. One trouble, however, with this definition is that it makes no allowance for V or V'. Both V and V' revealed themselves to be strong factors in the increase in prices during the war, and also in several instances of postwar inflation.

Another interpretation is sometimes given. In the postwar period in the United States wholesale commodity prices were slowly declining from about 1924 until 1929. Some authorities call this an inflationary period because there was a great expansion of bank loans and investments, and consequently of deposits. If bank credit had not expanded by such a large amount, prices, they contend, would have fallen more rapidly. This, they argue, should have happened, because costs of production were falling through an increase in efficiency. The expansion of bank credit kept prices up, which made large profits possible, and led to an unreasonable expansion in many lines of speculation, production, and trade, thus setting the stage for the depression beginning in 1929.

This explanation leads to some confusion. Logically it could apply to any period of stable prices, or of falling prices in which profits were increasing because costs were falling more rapidly than prices. It makes the test the rate of change in bank credit. To continue it further, bank credit could be *declining,* but at so slow a rate that costs would still be falling more rapidly than prices and, therefore, profits would be mounting. It seems unwise to call this inflation, since the logical interpretation of the definition would imply that inflation and deflation may be tested by the

variation in profits. We believe this leads to confusion and, consequently, prefer to cling to our definition, stated previously, a general rise or fall in the price level.

Certain things are not inflation. A departure from the gold standard is not, in itself, inflation. It may be caused by or followed by inflationary policies. Depreciating exchange rates cannot be termed inflation, either, although they may be accompanied by it. Devaluation of the dollar is not inflation, but it may set the stage for it.

Whether or not the present situation (1935) in the United States will lead to a monetary inflation no one can say. The national government cannot keep on spending at its present rate indefinitely without resorting, ultimately, to the printing press. The hope is that as recovery proceeds, the government can retire from its many fields of activity, balance its budget as tax receipts increase, and again begin to retire its bonds. Whether this will happen, or just when it will happen, it is yet too early to say. Devaluation of the dollar increased our gold reserves tremendously, but whether inflation will follow will depend upon whether this reserve is used to support, eventually, the amount of bank credit possible.

It is realized by students of money and banking, but not generally understood by the public, that inflation may occur on the gold standard as well as on a paper standard. There have been many cases where a country has been on paper and there has been little or no inflation, because government monetary and financial policies have been conservative. On the gold standard inflation can occur if there is a large gold reserve which is used to support a growing amount of bank credit. Inflation may therefore come about, because a general rise in prices may follow. There will be an ultimate check on the process if the country remains on gold and the banks eventually raise interest rates on new loans or discourage them and force repayment of old ones. But before this point is reached there may have been a considerable rise in the price level.

From 1873 to 1897 gold-standard countries, the world over, experienced a period of slowly falling prices. This is sometimes

called "creeping deflation." From 1898 to 1914 these same countries saw their prices gradually rise, "creeping inflation." In fact, it can be said with some assurance that during much of the last hundred and fifty years the world has been experiencing some degree of inflation or deflation most of the time. These periods of slowly rising and falling prices, if continued for some time, cause difficulty enough; but it is the periods of rapid inflation and deflation that cause most trouble, if they go too far. It is largely a question of degree. To some incidents from past history we will now turn.

The Assignats. The history of colonial and Revolutionary bills of credit has previously been outlined. In succeeding chapters other instances, such as the greenback and Confederate currencies, will be described. The adventures of John Law in the early part of the eighteenth century in France are well known. Law believed that paper money could be issued on the security of land. If land had a certain value in francs, money could be issued against it to that amount, and Law believed that this money could not possibly fall in value. He secured permission to organize a bank which issued notes based on land, and finally on other commodities of value. He formed the Louisiana Company and issued notes on its land holdings in the Mississippi Valley. Because he did not adequately safeguard the notes against overissue, they depreciated greatly and the venture came to a disastrous end. This incident is known as the Mississippi Bubble. Ricardo once said that there can be no depreciation of the currency except through excess. Law's experiment revealed that if money is to be prevented from depreciating, its amount must be limited or controlled.

During the French Revolution the French Assembly issued notes, or *assignats*, based on land which formerly belonged to the nobles and the clergy but had been confiscated by the government. Because of wars with England and Austria the French government needed additional funds. It could not raise them from loans or taxes and was faced with a large budgetary deficit. The issue of assignats was decided upon in 1789. Mirabeau, one of the most prominent figures and orators of the Revolution, defended their issue in these words: "They represent real property,

the most secure of all possessions, the land on which we tread. . . . It is thus alone you will pay your debts, pay your troops, advance the revolution. Reabsorbed progressively, in the purchase of national domains, this paper money can never become redundant, any more than the humidity of the atmosphere can become excessive."

Mirabeau's confidence proved to be greatly mistaken. The assignats, although issued moderately at first, soon were printed in larger and larger amounts. Prices began to rise. Legislative decrees attempted to fix prices or to prevent further rises, and to punish those who refused to accept the assignats in payment. But to no avail, except to halt the process of depreciation momentarily. By 1796 notes to the amount of nearly 50,000,000,000 francs had been put into circulation. They had depreciated, by that time, to about one one-thousandth of their former value and were being freely refused in many parts of France.

The government then decided to put out new notes, called *mandats*, and to redeem the assignats at a ratio of one to thirty. However, the mandats also depreciated quickly in value. Coin had long since disappeared from circulation, under Gresham's law. Prices and the cost of living had risen so greatly that much suffering ensued. Early in 1797 further issues were stopped. It is interesting to compare this French experience with that of our own colonial and Revolutionary bills of credit and the inflation period in Germany from 1921 to 1923. Not all paper-money issues lead to such uncontrolled inflation, but it is important to realize that limitation in amount is a necessary prerequisite to the preservation of the value of money.[1]

The World War. It has been previously mentioned that most of the countries engaged in the World War experienced varying degrees of inflation, although few went so far as actually to print paper money. The methods used have already been described. The origin of World War inflation lay largely in unbalanced governmental budgets. Some writers have claimed that inflation in

[1] The two chief sources of information on this experience are S. E. Harris, *The Assignats* (Harvard University Press), and Andrew D. White, *Fiat Money Inflation in France* (D. Appleton-Century Company).

some countries preceded an unbalancing of the budget. Others have considered fluctuation in foreign-exchange rates an important factor in the situation, claiming that external depreciation of a country's money led nations along the inflationary road. Writing in *Foreign Affairs* in 1924 Allyn A. Young said,

> That inflation, unbalanced budgets, and disordered exchanges have been among the chief factors delaying Europe's economic recovery is pretty generally known, but it is not so well understood as it should be that the sequence of cause and effect, particularly in the period following the War, has not been inflation, unbalanced budgets, disordered exchanges, but unbalanced budgets, disordered exchanges, inflation.

The peak of the price rise was reached in different countries at different times. Most of the peaks came well after the armistice. It may be asked why prices did not fall immediately upon the cessation of the war. In some countries they did, but shortly renewed their upward course. The explanation is, in practically every case, the same. Large governmental expenditures continued for various reasons. Wholesale prices reached their peaks in the following countries at these specified times (1913 = 100)[1]:

Country	Date	Price Index
1. Sweden	December, 1918	372
2. Great Britain	April, 1920	313
3. United States	May, 1920	247
4. Netherlands	July, 1920	296
5. Norway	September, 1920	425
6. Denmark	November, 1920	403
7. Switzerland	January, 1921	238
8. Czechoslovakia	January, 1922	1,675
9. Germany	December, 1923	126,160,000,000,000
10. Russia	February, 1924	17,100,000,000
11. Poland	February, 1924	248,429,600
12. Hungary	December, 1924	2,346,600
13. Austria	January, 1925	2,118,100
14. France	July, 1926	837
15. Belgium	July, 1926	876
16. Italy	August, 1926	740

[1] Edie, *Money, Bank Credit and Prices*, p. 288. Harper & Brothers.

This list should be studied carefully, as it reveals clearly the degree of inflation experienced. Only one country, Switzerland, showed a smaller inflation in prices than the United States. However, if the United States had entered the war a year earlier, the story might have been different. The United States inflated partly by getting individuals, corporations, and institutions to buy bonds under a "Borrow and Buy" campaign, and also by encouraging banks to buy bonds, permitting them to borrow from the Federal reserve banks on such bonds as security. Banks advanced loans to customers to buy bonds, the bonds being pledged as security for the loans. As a result there came a large increase in Federal reserve notes outstanding and in bank deposits. The United States inflated, then, through an expansion of bank credit. Earlier than 1917, before it entered the war, there had been some inflation due to foreign flotation of bonds in the country and to the demand from the warring powers for war supplies. Although this whole process was understood as an inflationary one by most economists at the time, it was not so understood by the general public, which explained the increase in prices on other grounds, such as "profiteering" and the like. The government also attempted to fix a large number of prices, which doubtless prevented some price increases.

England issued currency notes, called "Bradburys" (after Sir John Bradbury, who sponsored the bill permitting their issue), through the Bank of England, to joint-stock banks and savings banks. Previously the smallest note in England had been a five-pound Bank of England note. Under the laws, based on the Peel Act of 1844 (governing the Bank of England), in 1914 only £18,450,000 in notes could be issued on the security of government bonds. All other Bank of England notes put out had to be secured pound for pound in gold. In 1914 the Peel Act was suspended to permit the bank to increase its note issues based on government bonds. "Bradburys" were issued in denominations as small as ten shillings. Since England, like the United States, withdrew its gold from circulation, it was necessary to have smaller paper money to take its place. The currency notes rapidly displaced gold, the gold was concentrated in the Bank of England,

and thus was permitted an increase in its bank-note issue and also in deposits. The "Bradburys" made possible a great expansion in bank credit, and inflation. On the whole, the British method of financing the war was somewhat similar to that adopted in the United States. There was considerable price-fixing, and misunderstanding of what was causing the price increase, as in the United States. In 1928 the "Bradburys" (in amount approximately $1,260,000,000) were taken over by the Bank of England under the Amalgamation Act of that year, the Bank of England issuing its own notes (secured by government bonds) to replace them. England returned to gold at the old par in 1925. The low point in the foreign-exchange value of the pound was $3.19 in February, 1920, until England again dropped gold in 1931.

France and a number of other European countries, in addition to selling bonds, financed the war by borrowing from their central banks and taking much of the proceeds out in central-bank notes. It was similar to the American government's borrowing on its bonds directly from the Federal reserve banks and taking the proceeds out in Federal reserve notes. In some of the countries where the government took the proceeds partly in deposits, note issues were in general more important. This method was common in countries where deposits and checking accounts had not developed to the same extent as in the United States.

French and British exchange rates on the United States were pegged during the war about 2 per cent below par by giving J. P. Morgan authority to buy all bills of exchange offered below this price. Pegging was stopped in 1919. England was able to balance her budget much earlier than France because of higher taxation, and also because France spent large sums in reconstructing the devastated areas. Finally, after the franc sunk to 2 cents in 1926, the Poincaré government by rigorous measures balanced the budget, and France returned to gold in 1928 at a new external value for the franc, 3.92 cents.

Germany. The German inflation deserves special attention, since it was the worst. Inflation was, to be sure, disastrous to the citizens of Russia, Poland, Hungary, and Austria; still it was not so bad as in Germany. Any country in which prices increase twenty

thousand times, as in Austria, must suffer greatly, but Germany's case was simply catastrophic. People on fixed incomes saw what had become a comfortable yearly income decline in buying power until it would not buy even one meal. How so many survived is amazing. The price rise in Germany was so great that it cannot be comprehended.

When the war ended, the German mark, like the pound and the franc, had suffered only moderate depreciation. The government had borrowed partly from individuals, many of whom borrowed from their own banks to secure the necessary funds. This was, of course, inflationary, since it led to an increase in bank credit and prices. But after the war Germany was faced with the necessity of making large reparation payments and found it hard to balance its budget. The government began to borrow more and more from the Reichsbank by discounting treasury bills. While some of the proceeds were taken in deposits, most of them were taken in Reichsbank notes. The mark continued to fall in the foreign-exchange markets, and finally Germany announced she could not pay the large reparations demanded. Early in 1923 France marched into the Ruhr to bring Germany to terms. This was the final factor in starting Germany on its monetary debauch.

In January, 1921, there were 66,600,000,000 in Reichsbank mark notes outstanding, and prices were only fourteen times above the prewar level. Only 50,000,000,000 marks in treasury bills were held by the Reichsbank. One year later both notes and prices had approximately doubled, and by January, 1923, Germany was on the road downward. Over 1,600,000,000,000 marks in treasury bills had now been rediscounted at the Reichsbank, nearly 2,000,000,000,000 in Reichsbank mark notes had been issued, and prices had risen well over two thousand fold. Germany began to finance the resistance to the French invasion of the Ruhr by lending to the industralists or permitting them to print their own money; and the last seven months of 1923 saw Reichsbank notes rise to 500,000,000,000,000,000,000 marks, discounted treasury bills rise to proportionate figures, and prices rise to 1,261,600,000,000,000 times prewar figures. It took 4,000,000,000,000 paper marks to buy one American dollar.

Strangely enough, money became so scarce that the printing presses fell far behind. The government gave many firms the right to print their own money to pay their bills. It was no time to save; the only thing to do with money was to spend it. If you kept it, it became worthless in your hands. Velocities of circulation reached tremendous proportions. There was no stopping such a condition once it got well under way. Finally the Rentenbank was established, and a new unit, the Rentenmark, was issued, based on mortgages and other security. All the Reichsbank notes outstanding were redeemed at the ratio of one trillion for one Rentenmark, for less than the equivalent of $50,000,000 in gold. If there ever was a case of money becoming worthless, this was it. The larger the total amount in circulation grew, after a certain point, the less became its total value.

Many governmental units in Germany, many corporations and individuals, paid off their debts in this cheap money, thus paying little or nothing. Consequently, while a large part of the population came out of this episode ruined, another part came out debt-free. Finally the Dawes Commission was appointed in 1924 to endeavor to settle the reparations question, and Germany returned to a form of the gold standard in 1924. All through the German inflation period it was evident that only a small proportion of the population knew the reasons for the rise in prices. It was attributed to everything except the real cause. The Reichsbank and government officials also seemed to be ignorant of the explanation, at least most of them were. Little real effort was made to stop the rise until it was too late.

Wartime Inflation and the Quantity Theory. It has been contended that the war experience has completely disproved the quantity theory. This would seem to be an exaggeration. As prices rose, government budgets became still more unbalanced, because expenditures were rising, owing partly to the higher prices. But, on the whole, increases in M, V, M', and V' preceded the first rises in P. Prices, once having risen, were responsible for fresh currency issues and more bank credit, because more money was needed to carry on at a higher price level. This again forced P higher, and the process continued. In other words, P

would at one time be an effect, then a cause, for fresh issues, which again generated a further rise in P. It is not expected that P should rise in exact proportion to new M and new M', because V, V', and T also have an effect. Even in Germany the quantity theory, as explained by modern theorists, does not seem to have been disproved.[1]

It is in the attempt to provide a satisfactory explanation of the great price decline throughout the world in 1920–1921 and 1929–1931 that quantity theorists meet their greatest difficulties. In 1920 many price reductions were instituted which are hard to explain. Possibly there was a general feeling that prices were too high; but probably rising interest rates, a decline in V', the reluctance of banks to renew old loans, and the pressure put on speculators to repay bank loans had much to do with it. But P may have dropped first because many prominent businessmen felt the end of price increases was at hand. V' began to decline early in 1929, but, again, forces might have been in operation acting directly on P as well. The modern quantity theorist must admit that upon occasion, and in short periods of time, the initiating cause may have first affected P; but careful attention must be paid to the fact that possibly the first effect may have been upon M, M', V, V', or T.

[1] On this point consult Edie, *Money, Bank Credit and Prices*, pp. 314–317.

CHAPTER IX

THE GREENBACKS AND CONFEDERATE CURRENCY

The Greenbacks

Treasury Notes before the Civil War. During the War of 1812 the government of the United States issued Treasury notes to the amount of $36,680,794. All except $3,392,994 were payable to order and payable at a definite time and bore interest at the rate of $5\frac{2}{5}$ per cent. About two thirds of them were of denominations of $100 or more. They did not become a part of the circulating medium and were not intended to. They were paid to such creditors of the government as were willing to receive them, and they were generally at par until specie payments were suspended in September, 1814. On November 12, 1814, Mr. Hall, a member of Congress from Georgia, introduced a bill in the House for an issue of Treasury notes to be legal tender. The House, by a vote of 42 to 95, and without debate, refused to consider this bill. No other attempt was made to pass a legal-tender bill until 1862.

In the panic and crisis of 1837–1843, during a portion of which time specie payments were suspended, the government issued Treasury notes to the amount of $47,000,000 to meet deficiencies of revenue. All these notes bore interest and were payable at a fixed time. They did not become a part of the circulating medium. A few were issued by the Secretary of the Treasury in 1842, bearing only a nominal rate of interest (one mill per $100 per annum). Such notes had not been contemplated by Congress. The Committee of Ways and Means of the House, to whom the subject was referred, reported that the Secretary had exceeded his authority, but Congress took no action on the report. It was the opinion of the committee that these notes were bills of credit within the meaning of the Constitution and that Congress had no power to

issue bills of credit. In 1847, during the war with Mexico, Treasury notes to the amount of $26,122,100 were issued. They bore interest at the rate of $5\frac{2}{5}$ and 6 per cent. They did not enter into the circulation and were not intended to. The foregoing issues of interest-bearing Treasury notes were merely government loans, of which the securities were in small denominations and had only short periods to run.

When specie payments were suspended in 1814, and again in 1837, silver small change disappeared because it was worth more per dollar than the bank notes in circulation. On both occasions private notes and tickets of less denominations than one dollar, and copper coins, were issued and put in circulation by bridge, ferry, and turnpike companies and by tradesmen and manufacturers. One hundred and sixty-four varieties of private copper coins of the period of 1837 have been preserved in numismatic collections. Most of them bore the names of the issuers, who promised to redeem them.

War Loans of 1861 and Suspension of Specie Payments. Before the Civil War the fiscal operations of the government were transacted exclusively with coin, by its own officers, without the intervention of banks. In August, 1861, Mr. Chase, the Secretary of the Treasury, negotiated three loans of $50,000,000 each from the banks of New York, Boston, and Philadelphia. In anticipation of such loans Congress had passed a law authorizing him "to deposit any of the moneys obtained on any of the loans in such solvent specie-paying banks as he might select," and to withdraw the same as required for the payment of public dues. The object of this law was to enable him to leave the money in the banks as a deposit till wanted for actual disbursement, and then to withdraw it by checks, which would be settled at the clearinghouse. This was a discretionary power, and Mr. Chase decided not to make use of it. The bankers argued that the financial operations of the government could be best carried on by leaving their gold in their own vaults as the basis of credit. Against the strong opposition of the banks, he required them to pay their gold into the subtreasury at New York at the rate of about $5,000,000 per week.

This policy does not appear to have had any harmful effect,

except that of exciting the fears of the bankers themselves.[1] The public creditors, who received the gold, deposited it again in banks, where it became the property of the latter, like any other funds or securities among their assets. The largest amount of gold in the banks of the three cities at any time during the year was $63,200,000, August 17. On December 7 following, it was $58,-100,000, although in the meantime they had lent the government $100,000,000 and had agreed to lend $50,000,000 more. These loans had been largely, but not wholly, reimbursed to the banks by the sale to the public of the securities they received from the government.

Everything appeared to be going on well, but early in December two untoward events occurred. The first was the report of the Secretary of the Treasury. It had been generally felt that the plan of borrowing from the banks to carry on the war could be only a temporary makeshift intended to serve until a permanent policy could be matured. It was hoped that the finance report in December would present a programme of adequate taxation. The disappointment over its failure to do so was keen, and the suspicion that the Secretary was not equal to his great task injured the credit of the government. The second event was the *Trent* affair, which threatened for a time to involve the Federal Government in a war with England.

The moral effect of these events was immediately seen. The credit of the government declined, so that it became impossible for the banks to sell the government securities, which they held to a large amount, except at a great pecuniary sacrifice. This cut off one source from which they had been obtaining specie. At the same time people became frightened, stopped depositing money in the banks, thus cutting off the other source. Even worse, the deposits began to be withdrawn and the specie reserve dwindled at an appalling rate. About twenty-seven million in

[1] In four previous editions of this book Mr. White had the following note at this point: "In the first edition of this book I ascribed the suspension of specie payments in December, 1861, to the removal of the gold from the banks by Secretary Chase. An article on this subject by Mr. Wesley C. Mitchell, in the *Journal of Political Economy*, June, 1899, has convinced me that I attached too much importance to that action." Professor Don C. Barrett, however, on pages 9–15 of his book *The Greenbacks and Resumption of Specie Payments, 1862–1879* (Harvard University Press), places great stress upon this removal of gold as a cause of suspension.

specie were drawn inland from the New York banks in the month of December, by far the larger part of it in the last two weeks. It was all outgo now, and no income. The end was but a question of time. After standing the strain upon their reserves for two weeks, the New York banks were compelled, in order to save themselves from complete exhaustion, to suspend specie payments on the thirtieth day of December. Banks in other cities speedily followed suit. The suspension of the national Treasury was entailed as a necessary consequence of the suspension of the banks. Thus the first day of the new year 1862 saw the collapse of the whole scheme of national finance.[1]

The Legal-Tender Bill. Among the various devices for raising money at the beginning of the war was that of issuing non-interest-bearing Treasury notes in small denominations fitted to be used as currency. Sixty millions of these had been authorized before Mr. Chase negotiated the above-mentioned loans. These notes were payable on demand and were receivable for taxes and duties on imports, but were not legal tender. Mr. Chase was paying them to such of the public creditors as were willing to receive them, simultaneously with his disbursement of the gold drawn from the banks. Thirty-three millions were outstanding when specie payments were suspended. They were called "demand notes" in distinction from the subsequently issued legal-tender notes. The bill for the latter was first proposed by Mr. Elbridge G. Spaulding, a member of the Committee of Ways and Means, and was reported by the committee by a majority of one vote on January 7, 1862. It authorized the Secretary of the Treasury to issue $150,000,000 of United States notes not bearing interest, payable to bearer, of denominations not less than $5 each. Fifty millions of these notes were to be in lieu of that amount of the demand notes aforesaid. The notes were to be receivable for all dues to the government and to be legal tender for all debts public and private within the United States and to be exchangeable for bonds of the United States bearing interest at 6 per cent, redeemable after five years and payable in twenty years. These bonds were familiarly known as the five-twenties.

[1] Wesley C. Mitchell, in the *Journal of Political Economy*, June, 1899.

A delegation of bankers from New York, Boston, and Philadelphia came to Washington to remonstrate against the bill. A meeting was held at the office of the Secretary of the Treasury on January 11, at which these gentlemen and the members of the financial committees of the House and Senate were present. Mr. James Gallatin, in behalf of the bankers, presented a plan of national finance which would, in the opinion of those gentlemen, procure the means for carrying on the war without recourse to legal-tender notes. One of the proposals was to "issue 6 per cent twenty-year bonds, to be negotiated by the Secretary of the Treasury, and without any limitation as to the price he may obtain for them in the market."

Mr. Spaulding took ground at once against this plan. He tells us that he "objected to any and every form of 'shinning' by government through Wall or State Street to begin with; objected to the knocking down of government stocks to 75 or 60 cents on the dollar, the inevitable result of throwing a new and large loan on the market, *without limitation as to price.*"

In order to avoid selling government stocks at 75 or 60 cents on the dollar in an honest way, Mr. Spaulding initiated a policy which ended in selling those stocks at 40 cents on the dollar in a roundabout way, and cheating creditors, soldiers, and laboring men out of more than half their dues in an incidental way. This state of facts he mournfully acknowledges in his book, and he seeks to put on Mr. Chase the blame for too much inflation of the currency.[1] But the man who opens the floodgates has no right to complain of the inundation.

Although Mr. Chase, in his annual report for December, 1861, distinctly rejected the idea of legal-tender notes (which was already in the air), on account of "the immeasurable evils of dishonored public faith and national bankruptcy," yet on January 22 following, he wrote to Mr. Spaulding a qualified approval of his

[1] "He [Chase] left the office with twice as much inflating paper outstanding as ought ever to have been issued, and with the promised dollar printed on the face of the greenback worth only 35 to 40 cents in gold." — Introduction to the second edition of Spaulding's *Financial History of the War*, p. 11.

bill. The letter was not satisfactory to all the members of the committee. Consequently a resolution was adopted, asking his opinion as to the propriety and necessity of the immediate passage of the bill by Congress. His answer was returned on the twenty-ninth. Much unnecessary verbiage was employed to convey the Secretary's assent to the legal-tender clause, but he gave his assent and added certain reasons for it which had not been advanced by anybody else. He said that some people gave a cordial support to the government by taking its notes at par, while others did not — referring to the demand notes, which were not legal tender. "Such discriminations," he said, "should, if possible, be prevented, and the provision making the notes a legal tender, in a great measure at least, prevents it by putting all citizens in this respect on the same level, both of rights and duties." This was very plausible. It appealed powerfully to the spirit of patriotism. But Mr. Chase was a victim of his own phrases. The *duties* of the citizen are to submit to the laws of conscription and of taxation, and his *rights* are to be exempt from impressment and confiscation. If others enter the army voluntarily or give their money to the government outright, those acts are over and above duties. They rise to the category of merits.

The bill passed the House, February 6, 1862, by 93 to 59. The legal-tender clause, however, narrowly escaped defeat in the Senate. On Mr. Collamer's motion to strike it out, the yeas were 17 and the nays 22. Senator Fessenden, the chairman of the Committee on Finance, spoke and voted against the legal-tender clause, but he did not oppose it vigorously. In any narrow division of the Senate his influence would have been decisive, if he had exerted it. But evidently he did not wish to be responsible for the defeat of the measure.

Two amendments of importance were added by the Senate: one making the interest on the government's obligations payable in coin; the other giving the Secretary of the Treasury authority to sell bonds bearing 6 per cent interest at any time, at the market value thereof, for notes or coin. The latter clause was intended to enable the Secretary to obtain gold at some price, to pay the interest on the bonds. In the conference committee of the two

houses an additional plan was devised for this end, by making duties on imports payable in coin.

The Second Issue. The bill became a law on February 25, 1862. On June 7 Mr. Chase asked for $150,000,000 more notes. A bill for this purpose was passed with very little opposition. It provided that not more than $35,000,000 should be of denominations smaller than $5.

The Coin Purchase Act. On March 6 Mr. Stevens introduced a bill authorizing the Secretary of the Treasury to dispose of any bonds or notes authorized by law, for coin, on such terms as he should deem most advantageous to the public interest. After the legal-tender act was passed, it was remembered that $60,000,000 of demand notes were outstanding, which were receivable for customs duties. If duties should be paid exclusively in these notes, some considerable time must elapse before any coin would come in to meet the interest payments. Mr. Stevens said that it was impossible to sell bonds "at the market value," and that the Secretary of the Treasury had sent down this bill and wanted to have it passed at once. He concurred in the necessity of it, since the coin amendment had been adopted by Congress, although that amendment was against his judgment. The bill was passed by the House on the following day, and by the Senate March 11, without a division. In the Senate it was amended so as to read as follows:

> The Secretary of the Treasury may purchase coin with any bonds or notes of the United States authorized by law, at such rates and upon such terms as he may deem most advantageous to the public interest.

In the Revision of the Statutes, which was completed in 1874, this clause was wisely retained among the provisions of law "general and permanent in their nature"; for, so long as the Treasury is responsible for the maintenance of parity between gold and paper, its power to obtain gold ought to be unrestricted.

The Third Issue. When Congress assembled in December, 1862, it found that the most sacred obligation of the government — the pay of the army and navy — had not been met, and that great distress existed among the families of soldiers in consequence. Mr. Gurley, of Ohio, in the House (January 15, 1863)

drew a most harrowing picture of the suffering in consequence of this default. The amount of pay overdue was $59,000,000.

It is not possible to acquit Mr. Chase of responsibility for this default. The House passed a resolution asking why he had allowed the pay of the army to fall into arrears. He had power under the law to sell 6 per cent bonds at their market value for greenbacks or coin. Why had he not done so? His answer was in these words:

> The Secretary, solicitous to regulate his action by the spirit as well as the letter of the legislation of Congress, did not consider himself at liberty to make sales of the 5–20 bonds below their market value; and sales except below were impracticable.

What Mr. Chase meant was that the quoted value of 6 per cent bonds on a particular day — January 3, 1863, for example — was 98 in currency. But if the Secretary should offer any large lot, the price would fall below 98. In other words, there was no market value for bonds, although there was a market value for every other merchantable thing under the sun. There was much feeling against Mr. Chase among congressmen, on account of this interpretation of the law which they had passed to meet every financial emergency.

The Secretary's scruples on this subject led to the third batch of legal-tender notes, $100,000,000, authorized by a joint resolution dated January 13, 1863, "for the immediate payment of the army and navy of the United States." The whole amount now authorized was $400,000,000. The price of gold at this time was 142; at the end of the month it was 159. Mr. Spaulding was surprised, at this juncture, to find that there was a great scarcity of currency. This he attributed, not to the advance in prices which had absorbed the additions to the circulating medium, but to the operations of the army and navy. He did not explain how the operations of a million men fighting and destroying property should call for more currency than those of the same number engaged in peaceful occupations at home.

Interest-bearing Notes. Two other kinds of legal-tender notes were issued during the war. They were called Treasury notes in

contradistinction to the former ones, which were called United States notes, or popularly greenbacks. On March 3, 1863, Congress authorized the issue of $400,000,000 of Treasury notes of denominations not less than $10, to run not more than three years, to bear interest not exceeding 6 per cent, payable in "lawful money," that is, in either gold or United States notes. They were to be legal tender for their face value, excluding interest. The object of this law was to obtain loans from small investors without making further additions to the currency. Anybody having $10 for which he had no immediate use could buy a Treasury note for that sum. He would be impelled to hoard it for the sake of the interest, but if necessary he could use it as money for its face value, in which case the payee would be impelled to hoard it.

Under this act $44,520,000 of one-year notes and $166,480,000 of two-year notes, bearing interest at 5 per cent, were issued. A portion of these notes had interest coupons attached to them, which could be cut off and collected as the interest matured. These were found to be troublesome, since they caused alternate contraction and expansion of the currency. When the accumulated interest was sufficient to make it worth while for the owner to keep them they would be hoarded, and when the coupon was cut off they would be put in circulation. They were paid off by the government and canceled as soon as possible.

Compound-Interest Notes. Under this act there were issued also $266,595,440 of compound-interest notes to run three years. The rate of interest was 6 per cent, compounded semiannually, and the interest was payable with the principal at maturity, and not otherwise. On the back of the note was a printed statement showing its value at the end of each six months. The $10 note was worth $10.30 at the end of the first half-year and $11.94 at the end of three years. This was the most scientific form of legal-tender notes issued during the war, since it offered a continuing and increasing inducement to the owner to hold them as an investment instead of putting them in circulation.

Fractional Currency. In the summer of 1862 the silver subsidiary coins began to grow scarce. By the coinage act of 1853 their metallic value had been reduced 7 per cent, but they remained

in circulation with the greenbacks until the latter had depreciated more than 7 per cent. Then, in obedience to Gresham's law, they were exported and sold as bullion, or put into circulation in Canada. As small change thus became scarce, people began to use postage stamps as a substitute. The demand for stamps became greater than the Post Office Department could supply; and the stamps themselves, being flimsy and sticky, were inconvenient and exasperating to the last degree. Private persons began to issue fractional currency and copper coins in great numbers and varieties to supply an indispensable need. On July 17, 1862, Congress authorized the issue of small notes to take the place of the stamps and of the local "shinplasters," as they were popularly termed. The first form issued was a piece of paper with the facsimile of a five-cent postage stamp in the center of it. The twenty-five-cent note had the five-cent stamp five times repeated. This was called postage currency. By a later act fractional currency was issued in the form of promissory notes of the United States for sums less than one dollar. All these, and also the postage-currency notes, were redeemable by the government and receivable for all taxes except duties on imports. The notes were small in size, as well as of small denominations, and were easily worn out and lost. The largest amount in circulation at any time was about $27,000,000.[1]

The Ten-Forty Bonds. On March 3, 1863, Congress passed a law providing for an issue of bonds bearing interest at 5 per cent, redeemable in ten years and payable in forty years, known as the ten-forties. Two features of importance are to be noted in this measure. One was a provision making the principal, as well as the interest, of these bonds payable in coin. The other was the repeal of the clause of the legal-tender act which made the notes convertible into bonds at par.

When the legal-tender act was passed, creating two kinds of public debt, bonds and notes, nobody dreamed of paying the former with the latter. If any member of Congress had risen in his place while the bill was pending, and said that the government

[1] See the article "The Private Issue of Token Coins," by R. P. Falkner, in the *Political Science Quarterly*, June, 1901.

might sell $150,000,000 of interest-bearing bonds for gold, and then pay them off with $150,000,000 of non-interest-bearing and irredeemable notes authorized by the same act, he would have been considered a lunatic. But a year had not elapsed before a considerable stir was created by persons who held that all the government bonds then outstanding might be lawfully paid with greenbacks. Accordingly Congress made the principal of the ten-forties, as well as the interest, payable in coin.

Maturing Bonds Paid in Gold. On January 1, 1863, an old debt of the government, contracted in 1842, for $8,000,000 became due, and Secretary Chase paid it in gold. The House of Representatives had previously asked him by resolution (December 16) in what kind of money he intended to pay it. He postponed the answer until he had actually paid it. He then said (January 5) that he had paid it in coin in order to keep the government's credit good.

It was disclosed later that the country had narrowly escaped a great danger. The Treasury had no gold at that time, or not sufficient to meet the claim, and some persons talked of paying it with legal-tender notes. At the last moment Mr. John J. Cisco, the assistant treasurer of the United States in New York, obtained $8,000,000 gold from the banks in exchange for legal-tender notes, on his personal pledge to redeem the notes with the first gold that came into his hands from customs duties. With the gold so obtained Mr. Chase paid the debt.[1]

Funding Clause Repealed. Mr. Chase desired to have the funding clause of the legal-tender act repealed, because, as long as the holders of notes could convert them into 6 per cent bonds at par, no bonds could be sold bearing a lower rate of interest. He believed that, if this privilege were taken away, a loan could be negotiated at 5 per cent. Congress yielded to his request, fixing a date (July 1, 1863) when the right of conversion should cease. This was an inexcusable breach of contract and a financial blunder. By preventing the voluntary conversion of the notes into bonds it prevented the early resumption of specie payments after the close

[1] See the letter of George S. Coe in Spaulding's *Financial History of the War*, second edition, appendix, p. 94.

of the war, as Chief Justice Chase acknowledged in his dissenting opinion in the *Legal Tender Cases*. Whenever the rate of interest on government securities in the money market should be less than 6 per cent, as it was immediately after the war, the notes would be converted into bonds and retired. This operation being automatic, being part of a contract, and coinciding with public opinion at the close of the war, which was favorable to specie resumption, would probably have worked out that result within a brief period.

In June, 1864, Congress enacted that the whole amount of greenbacks issued or to be issued should never exceed $450,000,000, the last $50,000,000 being a temporary issue. When the war came to an end and the army was paid off and disbanded, the amount remained fixed in the law at $400,000,000.

The Antigold Law. Secretary Chase resigned his office June 30, 1864, and was succeeded by W. P. Fessenden. Mr. Chase's last financial act was the preparation of a bill, which he induced Congress to pass, to "prohibit certain sales of gold and foreign exchange."[1] It prohibited sales of gold unless the person selling it had it in his actual possession and delivered it to the buyer the same day. It prohibited the purchase or sale of foreign exchange to be delivered more than ten days subsequently. It provided also that no purchases or sales of gold coin or bullion or of foreign exchange should be made except at the ordinary place of business of the seller or purchaser occupied by him individually. Violation of the law was punishable by fine or imprisonment or both, the smallest fine being $1000. The idea of Mr. Chase and of the congressmen who voted for the bill was that the brokers caused the price of gold to advance. They imagined that they could stop the advance by an act of Congress. Mr. Chase was of that opinion. Three days after the passage of the law he wrote to Horace Greeley, "The price of gold must and shall come down, or I'll quit and let somebody else try."[2]

This measure became a law June 17, 1864. It remained on the statute book only two weeks. On the day it passed gold was

[1] Shucker, *Life of Salmon P. Chase*, p. 359.

[2] See the letters of Chase to Greeley in the New York *Daily Tribune*, January 20, 1895.

quoted at 198. The next day it was 208, the next 230, and at the end of the month 250. At no time before had there been so rapid an advance. Congress repealed the act, without debate, on July 2.

Early in 1864 Congress discovered that the issuing of greenbacks must be stopped and the policy of heroic taxation adopted. Laws were passed which yielded in 1866 a clear revenue of $558,-032,620. This was equal to two thirds of the entire expenditures in 1864. If taxation on this scale had been enacted in 1862, it would have yielded in 1864 as much as that of 1864 did in 1866, and the government's credit would have been strengthened in proportion to its income. Fewer legal-tender notes would have been required, the prices of commodities would not have advanced to any great extent, and the cost of the war to the taxpayers would have been much less than it was.[1]

Were Legal-Tender Notes Necessary? The question whether legal-tender notes were necessary at the time when they were issued, that is, whether the war could have been carried on without them, has been much disputed, and very respectable authorities are to be found on either side of it. Some are to be found on both sides, and among these is Mr. Chase himself. What he said as Secretary of the Treasury we have seen. As Chief Justice of the Supreme Court at a later period he held not only that the legal-

[1] Professor Simon Newcomb, in his work *Our Financial Policy during the Southern Rebellion*, published in 1865, but written before the war was ended, computed the government's net loss due to the use of a depreciated currency, down to the end of the year 1864, at $180,000,000, and estimated the loss still to be incurred, even if the war should end immediately, at $300,000,000 more, or $480,000,000 in all. According to his reckoning the government saved $97,000,000 during the first year of the war by paying greenbacks instead of selling bonds, since it paid them to its creditors at something near par in gold, whereas the gold price of its 6 per cent bonds in the market ranged between 78 and 90. By paying $1000 in greenbacks the government got nearly $1000 worth of property, gold value; whereas, if it had sold a $1000 bond, it would have received only $780 to $900. "We were enabled to pay off contracts made when gold was at par, with notes after they had depreciated one-third." But the progressive decline in the purchasing power of greenbacks turned the scale. In the third quarter of 1863 the government made an average loss of 10 per cent in its purchases, and this loss rose to 68 per cent at the end of 1864. In 1865 the government was paying, with currency worth 75 cents per dollar, debts contracted when it was worth only

tender act was unconstitutional as applied to pre-existing debts, but that legal tender did not add anything to the value or usefulness of the notes. "The legal-tender quality," he said, "was valuable only for purposes of dishonesty. Every honest purpose was answered as well or better without it."[1]

A nation pays its annual expenses, in war as well as in peace, out of its annual earnings, except so far as it borrows from foreigners, and the only question for the minister of finance is how to lay his hands upon the portion he needs. Issuing legal-tender notes is one way; taxation is another. The principal advantage of the former method is that it can be put in operation immediately, whereas taxation involves delay. On the other hand, taxation strengthens the government's credit and enables it to borrow for its immediate needs until the taxing machinery can be put in working order. Moreover, the government may borrow by means of interest-bearing notes, which are not legal tender. Not to multiply words about the assumed necessity of legal-tender notes in the Civil War, it may be safely said that other methods ought to have been exhausted first.

Effect of the Greenbacks on Wages. One of the reasons advanced by Senator Fessenden for opposing the legal-tender clause was that the loss would fall most heavily on the poor. All tricks

40 or 50 cents per dollar, and after 1879 it paid 100 cents on bonds sold at various rates of discount.

In his work *Public Debts* Professor H. C. Adams computes the extra cost of the war to the taxpayers, in consequence of the use of a depreciated currency, at $850,000,000. This is the difference between the debt created and the gold value of the currency which the government received for its obligations.

Mr. Wesley C. Mitchell, in the *Journal of Political Economy*, March, 1897, computes the net increase in the cost of the war, due to this cause, at $528,400,000. In reaching this sum he assumes that the government's receipts were increased $228,700,000 by the use of greenbacks. In this calculation he assumes that the government's receipts from internal revenue were increased to the full extent of the depreciation of the currency, but he acknowledges that there is room for doubt whether this was the fact. Further evidence on this point is presented by Mitchell in his two volumes *A History of the Greenbacks* and *Gold, Prices and Wages under the Greenback Standard*. Publications in Economics, University of California.

[1] See his dissenting opinion in the *Legal Tender Cases*, 12 Wallace, 457.

of legerdemain with the currency bear most heavily on the poor. Take a concrete case. The government wanted guns. It paid for them with legal-tender notes. The manufacturer must pay them to his workmen, who must buy their supplies of all kinds in a rising market. The cost of living not merely followed the gold premium, but generally kept above it. The dealers in commodities advanced their prices faster and farther than gold advanced, in order thus to insure themselves against loss by rapid fluctuations. Valuable lessons may be learned by considering the variations in the purchasing power of a soldier's monthly pay over commodities for each quarter of the four years of the war, as compared with the prices of January, 1860. The pay was nominally $13 per month. In the third quarter of 1862 it would buy $11.26 worth of gold and $11.11 of the commodities usually consumed in the family. One year later it would buy $9.96 gold and $8.07 commodities. One year later Congress raised the pay to $16 nominally, but even then (July, 1864) the gold value of the pay was only $6.19 and its purchasing power over commodities $6.40. In April, 1865, the gold value of the month's pay had risen to $10.77, but its value in commodities was only $7.69.

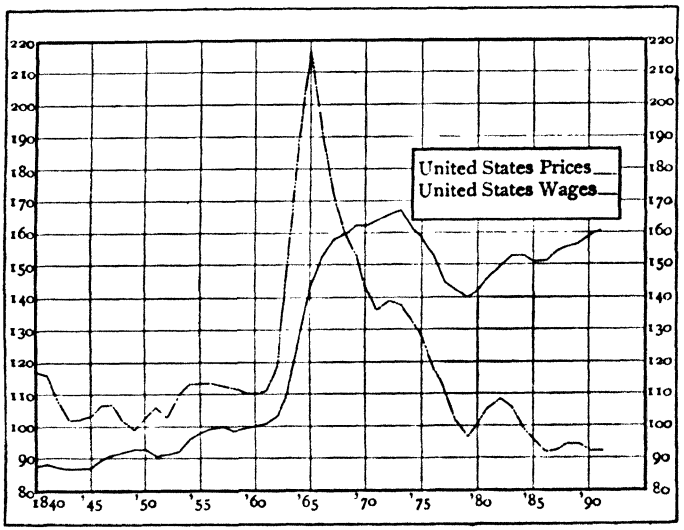
The question in what manner wages responded to the advance in prices during the war is an important one. Professor Taussig, of Harvard University, made a computation, reaching substantially the foregoing conclusions, which he placed in graphical form. He said:

> It will be seen that money wages responded with unmistakable slowness to the inflating influences of the Civil War. In 1865, when prices stood at 217 as compared with 100 in 1860, wages had only touched 143. The course of events at this time shows the truth of the common statement that in times of inflation wages rise less quickly than prices, and that the period of transition is one of hardship to the wage-receiving class.[1]

Effect on Prices of Commodities. We may here note the difference, in their effect on prices, between new supplies of gold and additions to the volume of an irredeemable currency. Nobody advances the price of his goods because new gold is coming out of

[1] Paper read before the International Statistical Institute at Chicago, 1893.

the ground. Everybody knows that the gold he receives today is final payment, and that it will be accepted by others at the same general value tomorrow. Quite otherwise is the effect of an issue of irredeemable paper. This is not final payment, but only a promise to pay at some indefinite time. The promise is also uncertain of fulfillment. Not all men realize these facts at first, but



PROFESSOR TAUSSIG'S CHART SHOWING THE COURSE OF WAGES AND PRICES OF COMMODITIES

there are always some who do, especially bankers and dealers in foreign goods. To the latter class it is a matter of doubt whether they can replace their goods at the prices they formerly paid. Accordingly they will buy foreign exchange (which means gold abroad) in anticipation of their needs. This unusual demand will cause an advance in foreign exchange and also in the prices of the exportable commodities (including gold), by which foreign exchange is made. Eventually the advance will extend to all goods, domestic as well as foreign, because producers and dealers find that they cannot replace their stocks at the same prices as before. The advance is usually slow at the beginning. Thus, although

specie payments were suspended on December 30, 1861, the premium on gold did not reach 4 per cent until the month of May following.

Trading in Gold. When the premium on gold became noticeable in January, 1862, the business of buying and selling it began naturally in the shops of those Wall Street brokers who dealt in foreign coins. These brokers had gold and silver on exhibition in their windows. People who wanted coin went there to buy it. Those who wanted to sell coin for greenbacks naturally went there also. Gradually the dealings in front of their offices became so large that the traders blocked the sidewalks, and the public authorities were obliged to give special orders to the police to keep the crowds moving. The business being thus interrupted, the dealers took up their quarters in a neighboring restaurant, where the business went on until it outgrew its accommodations. Then the need of a Gold Exchange was recognized. Thirty or forty men who had been in the habit of meeting in the restaurant formed a loose organization, hired a hall, and adopted rules by which any respectable man could become a member by paying $100 per year, to defray the expenses. This was in the autumn of 1862. It was a voluntary organization, existing under the rule of honor. Eventually it had four hundred and fifty members, consisting of bankers, brokers, and merchants of the principal cities of the Union.

At first the business was carried on by the manual delivery of gold in return for certified bank checks. To do this the gold had to be carried through the streets by messengers, who were sometimes knocked down and robbed. To facilitate the transactions the Treasury, in 1865, began to issue gold certificates of deposit, under authority of a law passed two years earlier. By and by the business became so large that it could not be carried on by manual delivery, even with the help of gold certificates. Then the Gold Exchange Bank was started as an adjunct to the Gold Exchange. This was an institution incorporated under the laws of New York, with a capital of $1,000,000. It did a regular banking business with its own capital, and it acted as a clearinghouse for the Gold Exchange at a fixed rate of compensation.

The method of clearing was as follows: Each transaction was noted on a "ticket of advice" signed by both buyer and seller. All the tickets were passed into the bank. If Mr. A had bought $1,000,000 worth of gold from various persons at various prices and had sold $999,000, then instead of receiving from and paying to all these people he would settle only with the bank. He would receive at the close of the day $1000 in gold and would pay whatever sum in greenbacks was due from him as the resultant of all his transactions. The usual daily amount of such clearings was $60,000,000 to $70,000,000.

The Gold Room. All the foreign trade of the country, both imports and exports, was regulated by the daily and hourly quotations of the Gold Room. This trade could not have been carried on otherwise. The wholesale prices of all importable and exportable commodities were regulated by the quotations. Retail prices were affected at longer range. That is, the retail dealers were obliged to fix their prices high enough to cover fluctuations and to save themselves from loss. The consumer was not able to buy at the lowest price that the law of competition would, under other circumstances, have made. Commodities not of an exportable or importable kind were affected in less degree and at still longer range, but were not exempt from the influence. In short, the whole trade of the country, both external and internal, pivoted on the Gold Exchange. Gold being the universal liquidator of commerce, it was necessary to know where and at what price it could be obtained in any desired quantity. The Gold Exchange gave the answer to this question daily and hourly, and was accordingly indispensable.

Gambling Raids. During seventeen years the business of the country was regulated by the quotations of the Gold Exchange and was exposed to the raids of gold gamblers. The most disastrous of these was the Black Friday conspiracy, which was a trap set for exporters. The export trade of the country at that time necessitated the selling of gold in advance of its delivery. A buyer of wheat or cotton for export would make his purchase according to the current price of gold, but he would not get his returns from abroad for some weeks, nor could he get a negotiable

bill of lading immediately. If the price of gold should fall meanwhile, he would be a loser. So he would sell at once the gold which he expected to receive later. He would do this by giving an order to a broker in the Gold Exchange to sell, putting up a small margin as a guaranty against possible fluctuations. Thus both the exporter and the broker would be protected, unless the fluctuations should be so great as to prevent the exporting merchant from keeping his margin good. In the latter event he might be ruined altogether.

The act of "selling short" is most commonly frowned upon as something akin to gambling. In this case the gambling consisted in not selling short. A fluctuating currency introduces the gambling element into all business, but more especially into the foreign trade of a country. By selling at once the gold that he expected to receive for his outward cargo, the exporter was doing a legitimate business. By waiting till his cargo arrived and his returns became available he took the risks of any amount of fluctuation in the interval.

Mr. Jay Gould, who was at that time president of the Erie Railway, and a daring speculator, conceived the idea of buying all the gold in the market and compelling the "short" sellers to buy of him when their contracts should mature. He organized a clique of brokers, speculators, and Tammany Hall politicians, who succeeded by various devices and by enormous purchases in carrying the price up from 133 to 162 in about twenty days, the greater part of the rise being in two days, in September, 1869. The twenty-fourth has always afterward been known as Black Friday. About two hundred and fifty persons and firms were caught "short" of gold, who had no way of meeting their contracts except by buying it of Gould and his party. The consequences were thus described by a committee of Congress, of which General Garfield was chairman:

Hundreds of firms engaged in legitimate business were wholly ruined or seriously crippled. Importers of foreign goods were for many days at the mercy of gamblers and suffered heavy losses. For many weeks the business of the whole country was paralyzed, a vast volume of currency was drawn from the great channels of industry and held in the

grasp of the conspirators. The foundations of business morality were rudely shaken, and the numerous defalcations that shortly followed are clearly traceable to the mad spirit engendered by speculation.

Black Friday and its evil consequences were due to the existence of a bad currency and a fluctuating standard of value. The Gold Room was at that time a necessity. Business could not be carried on without it, but it offered temptations and facilities for gambling which could not be resisted; and this gambling was more calamitous than any other, because the prices of all commodities and securities were affected by it. It was only an exaggerated and glaring illustration of the evils of an unstable currency.

When the war came to an end in May, 1865, the price of gold sank to 130, at which rate greenbacks were worth 77 cents per dollar. It had been as high as 285 in July, 1864, greenbacks being then worth 36 cents. The difference between these extreme quotations may be taken to represent changes in the public credit, or various vicissitudes and states of mind, dependent upon the war, wholly apart from the redundancy of the circulation, since the currency was no greater in volume at the one date than at the other.

California Adheres to the Gold Standard. The baleful effect of these fluctuations was shown very clearly in California. As that state was an integral part of the Union, the legal-tender act was as valid there as elsewhere, yet the greenbacks never became current there until after specie payments were resumed. California had no banks of issue and was entirely unfamiliar with paper money. It was not without a severe struggle, however, that the gold standard was maintained. The claims of loyalty were imported into the controversy, and it was stoutly insisted by the Greenback party that unwillingness to use legal-tender notes was akin to treason. Their opponents replied that they were entirely willing to use the notes at their actual value, but not at a higher value. They contended that, except for past debts, greenbacks could not be used at anything above their actual value, because the prices of commodities would fluctuate in some near proportion to the fluctuations of the currency. If taken for more than

their actual value by ignorant persons, such persons would be cheated. In regard to past debts they said that it would be unjust to pay less value than the parties had agreed for.

There is an advantage in studying the events in California at this time, because what happened there, in plain sight and hearing, took place on an immensely larger scale elsewhere, but was, for the most part, unnoticed.

There were no railways to the Pacific coast at that time; hence several months elapsed before any commercial effects were produced by the legal-tender act. On September 17, 1862, a firm in San Francisco published a letter in the *Alta California*, saying that they had been compelled to receive many thousands of dollars in legal-tender notes for goods which they had bought for gold and had sold on credit at gold prices. They had tendered the notes to their employees in payment of wages, but the latter had refused to receive them, saying that the boardinghouses, the butchers, and the grocers would not take them at par. "For ourselves," said the firm, "we wish to maintain the government, but we would like the burden to fall equally on all classes."

On March 5, 1863, a victim of the legal-tender law wrote to the *Evening Bulletin* of San Francisco that he had lent $10,000 in gold coin four years previously to a man in Sacramento, taking his note for it. The promissory note was lodged at the banking house of D. O. Mills & Co. for collection. The borrower came to the bank and tendered $10,000 in greenbacks as full payment. Greenbacks were then worth 68 cents on the dollar. D. O. Mills & Co. refused to receive the tendered greenbacks without the consent of the owner of the note, and denounced the conduct of the debtor as unfair in the extreme. After a protracted dispute the creditor accepted the $10,000 in greenbacks and $1000 in gold, rather than enter upon a doubtful lawsuit. His loss then was $2200, but as he kept the notes a few months, it became $3500.

Business was thrown into confusion by the contrariety of practice in different parts of the state with reference to greenbacks. Attempts were made to introduce into promissory notes, invoices, and bills of sale a clause stipulating for payment in gold, and these attempts were partially successful, but this could not be done with

accounts current, with telegraphic orders, or with retail trade conducted on the credit system. On November 8, 1862, the merchants of San Francisco entered into a written agreement not to receive or pay legal-tender notes except at their market value in gold. Country merchants were invited to sign it also. If anybody should refuse to sign or should violate the agreement, the others would decline to have any business transactions with him. This plan was slow in getting into operation and could not be made comprehensive enough to meet the emergency, since it included regular dealers only, and not transient customers.

Presently a case came into court, where a citizen had tendered greenbacks for state taxes and the collector had refused to receive them. The supreme court of the state decided that taxes were not "debts," and hence that the legal-tender law did not apply to them. This view was eventually sustained by the Supreme Court of the United States. The decision of the state court had a great influence on local public opinion, by strengthening the hands of the antigreenback men.

In October, 1862, the Board of Supervisors of San Francisco adopted a resolution to pay the interest on city and county bonds in gold coin and instructed their financial agent in New York to advertise to that effect. This action likewise tended to strengthen the position of the antigreenbackers.

On February 12, 1863, resolutions were introduced in the legislature, asking the general government to except California from the operations of the legal-tender law. One of the reasons advanced by the mover of the resolutions was that the rate of interest had risen to double the customary rate because lenders were fearful that no form of contract could prevent the payment of greenbacks where gold had been promised. Lenders required a higher rate to compensate them for this risk. The resolutions were, however, rejected.

Supreme Court Decisions. An agitation now was started by the *Daily Herald* for a law to enforce the payment of contracts in whatever kind of money the parties might agree for. The legislature took up the subject in earnest, and in April, 1863, passed a law to this end, not mentioning gold, greenbacks, or any particular

kind of money by name. This was known as the Specific Contract Law. It provided merely that in an action on a contract, or obligation in writing, payable in a specified kind of money or currency, the judgment should be payable in such money or currency. The parties might stipulate for English sovereigns or Spanish doubloons or notes of the Bank of France, as well as for American eagles or greenbacks; the law would enforce the contracts in all cases. The act was passed upon by the supreme court of the state the same year and pronounced constitutional. It was also held to be applicable to contracts made before its passage. Both these doctrines were subsequently affirmed by the Supreme Court of the United States, in terms which implied that the Specific Contract Law was superfluous. In other words, specie contracts were enforceable without it.

It remains to notice other decisions of the Supreme Court of the United States on the subject of legal-tender notes. In the case of Lane County *vs.* Oregon [1] (December, 1868) the court held unanimously that the legal-tender acts of 1862 and 1863 did not apply to taxes imposed by the authority of a state, and that taxes are not "debts." It followed that if a state made its taxes payable in gold, the taxpayer's obligation could not be discharged with legal-tender notes.

In Bronson *vs.* Rodes [2] (December, 1868) the court held that a contract specifically payable in gold and silver coin could not be discharged by a tender of United States notes.

In Butler *vs.* Horwitz, immediately following, it was held that a contract to pay a certain sum in gold and silver coin is, in legal effect, a contract to deliver a certain weight of gold and silver of a certain fineness. In this case the contract had been made in 1791 and was for payment in "English golden guineas." It was held in this case that damages for breach of contract should be assessed in coin also.

In Hepburn *vs.* Griswold [3] (December, 1869) it was held by five judges against three (the opinion of the court being delivered by Chief Justice Chase) that the making of notes, or bills of credit, a legal tender in payment of pre-existing debts is not a means appro-

[1] 7 Wallace, 71. [2] 7 Wallace, 229. [3] 8 Wallace, 603.

priate, plainly adapted, or really calculated to carry into effect any express power vested in Congress; is inconsistent with the spirit of the Constitution and is prohibited by the Constitution. Also that the clause in the acts of 1862 and 1863 which makes United States notes a legal tender in payment of all debts, public and private, so far as it applies to debts contracted *before* the passage of those acts, is unwarranted by the Constitution. The judges who concurred with the Chief Justice were Clifford, Nelson, Grier, and Field. The dissenting judges were Miller, Swayne, and Davis.

In the *Legal Tender Cases*[1] (December, 1870) the foregoing decision was reversed by five judges against four. The opinion of the court was delivered by Justice Strong, who had been appointed in place of Justice Grier, resigned. A new member (Bradley) had been added, in pursuance of a law passed by Congress in April, 1869, raising the whole number of judges to nine. The opinion read by Justice Strong implied that the power of Congress to make the government's notes legal tender between individuals on pre-existing contracts was an incident and consequence of the war power, but it did not expressly say so. The legal points of the opinion will not be considered here, but some attention must be given to an economic dictum found in it, namely:

> It is hardly correct to speak of a standard of value. The Constitution does not speak of it. It contemplates a standard for that which has gravity or extension, but value is an ideal thing. The coinage acts fix its unit as a dollar, but the gold or silver thing we call a dollar is in no sense a standard of a dollar. It is a representative of it. There might never have been a piece of money of the denomination of a dollar. There never was a pound sterling coined until 1815, if we except a few coins struck in the reign of Henry VIII, almost immediately debased, yet it has been the unit of British currency for many generations. It is thus a mistake to regard the legal-tender acts as either fixing a standard of value, or regulating money values, or making that money which has no intrinsic value.

The five judges who concurred in this opinion were Strong and Bradley in addition to the minority in the Hepburn case. Sepa-

[1] 12 Wallace, 457.

rate dissenting opinions were read by Chief Justice Chase and by Judges Clifford, Field, and Nelson.

In Juillard *vs.* Greenman [1] (March, 1884) it was held that Congress has the constitutional power to make the Treasury notes of the United States a legal tender in payment of private debts in time of peace as well as in time of war. Also that legal-tender notes redeemed and reissued under the act of May 31, 1878, are a legal tender, although not expressly made so by that act. The opinion of the court was delivered by Justice Gray, and a dissenting one was written by Justice Field. In Justice Gray's opinion we find the following statement:

> The power, as incident to the power of borrowing money and issuing bills or notes of the government for money borrowed, of impressing upon those bills or notes the quality of being a legal tender for the payment of private debts, was a power universally understood to belong to sovereignty in Europe and America at the time of the framing and adoption of the Constitution of the United States.

George Bancroft, the historian, reviewed this opinion in both its legal and its historical aspects. Referring to the statement quoted above, he declares it to be "a stupendous error," and affirms that no such power was understood to belong to sovereignty in Europe at that time, that is, in 1788.[2]

Confederate Currency [3]

The provisional government of the Confederate States of America was formed at Montgomery, Alabama, on February 8, 1861. Its Secretary of the Treasury was C. G. Memminger. Its

[1] 110 U. S., 421.

[2] *The Constitution of the United States of America Wounded in the House of its Guardians*, by George Bancroft. Pamphlet, 1884.

These cases, discussed above, had a significant part in determining the decision of the United States Supreme Court in the cases brought to test the power of Congress to abrogate the gold clause in contracts in 1934. The decision was rendered February 18, 1935. See page 39 in this volume.

[3] The principal authority for the facts embraced in this section is Professor J. C. Schwab's *Confederate States of America, 1861–1865* (Charles Scribner's Sons).

first financial act (March, 1861) was the issue of $2,000,000 of Treasury notes in denominations not smaller than $50. They bore interest at the rate of 3.65 per cent and were payable to order, that is, to some person named in the note and transferable by his endorsement. They were not intended to be used as currency and were not so used. Shortly afterward the Confederacy borrowed $15,000,000 on bonds drawing 8 per cent interest, for which it received gold value during the year 1861. The money was expended in the purchase of arms, ammunition, and supplies abroad. An export duty of $\frac{1}{8}$ cent per pound on cotton was enacted, but by reason of the blockade of the Southern ports it yielded scarcely anything. Later in the same year, May 16, the Confederate Congress authorized the issue of $20,000,000 of non-interest-bearing Treasury notes of denominations of $5 and $10, redeemable in specie in two years and convertible into 8 per cent bonds. These were intended to circulate as money, and they became at once the currency of the Confederacy.

A Produce Loan. The issue of bonds was increased to $150,000,000, and it was sought to make this, in part, a produce loan. Cotton, corn, flour, pork, beef, and tobacco were to be taken in exchange for bonds, and agents were appointed to solicit subscriptions among the planters. Nine tenths of all the subscriptions were in cotton. The reason why cotton was offered so profusely was that the Confederate Treasury was the only market open to the planter, whose customary market was cut off by the blockade. Meanwhile he had his own obligations to meet, and these could not be satisfied with 8 per cent bonds any more than with cotton itself. There was an outcry in many quarters for relief for the planters. Some persons advocated an issue of Treasury notes, with which to buy all the cotton offered for sale. Others proposed a loan of such notes on the cotton as security. Either of these plans, it was seen, would cripple the Confederate finances at the start, by filling the field of circulation before the armies were fairly in motion. The Confederate Congress did nothing for the planters, but some of the separate legislatures voted them Treasury notes of their own state issues on the security of cotton, which was left in the hands of the planters themselves.

The Currency not Legal Tender. At the end of 1861 there were $105,000,000 of Confederate Treasury notes outstanding, and the premium on gold was 15 to 20 per cent — the record is not exact. The notes were never made legal tender. The question of making them such was frequently under debate in Congress, but was always decided in the negative. Although the Confederate Congress did not, and Southern state legislatures could not, make the notes legal tender, the latter bodies or some of them deprived creditors of the remedies they had previously enjoyed for collecting their dues in the courts of law.

On August 19, 1861, the Confederate Congress authorized an issue of $100,000,000 of Treasury notes of denominations of $5 and upward. It was the opinion of the Southern bankers, who were then holding a convention at Richmond, that this might be safely done, but the limit was raised to $150,000,000 before the end of the year. The notes were redeemable "six months after the ratification of a treaty of peace between the Confederate states and the United States." They were convertible into bonds drawing 8 per cent interest, or into call certificates drawing 6 per cent, the latter being reconvertible into notes at the holder's option.

Failure to Tax. Internal taxation was not resorted to by the Confederacy in the first year of the war, except by a direct tax on the states, which was paid mostly by issues of state notes or bonds, that is, by borrowing. The customs yielded next to nothing, the ports being blockaded. It was Secretary Memminger's opinion at the outset that the war should be carried on by loans, with just sufficient taxation to pay interest. The Confederate Congress did not go so far in the way of taxation as Secretary Memminger advised. It preferred to rely on bond issues and note issues altogether. It accordingly passed an act in April, 1862, for $165,000,000 of 8 per cent bonds and $50,000,000 of new notes. It also issued another kind of note, of the denomination of $100, bearing interest at the rate of 7.30 per cent, receivable for taxes. It was supposed that these would be held for investment, but they were soon found to be in circulation. Prices of commodities were rising so rapidly that the notes were worth more in trade than in one's strongbox. Only 9 per cent of the public expenses was met with

bonds, 85 per cent with notes, and 6 per cent with taxes, donations, and the confiscation of Federal property.

As early as September, 1862, every barrier to note issues was thrown down by the passage of an act authorizing issues limited only by the public expenses. This system avoided present trouble, but it added to the anxieties of the Secretary of the Treasury, who knew that it was ruinous in the long run. Produce loans were resorted to as a partial check to excessive issues of currency. The government thus obtained the ownership of 430,000 bales of cotton, and was able to ship 19,000 bales to Europe by blockade-runners. In December, 1862, the Treasury notes outstanding, including state issues, reached $500,000,000, and gold was worth 3 for 1.

As the foregoing methods were proving fruitless, the idea was conceived of making cotton the basis of a loan abroad. After various negotiations the scheme was undertaken by the house of Erlanger & Co. of Paris. It was for £3,000,000 sterling, and was secured by cotton in the Confederate states at a valuation of 6d. per pound. Cotton was then selling at 21d. per pound in England. The payments were to be made in monthly installments, the first one being 5 per cent. The subscription was opened March 21, 1863, at the issue price of 90, and was said to have been oversubscribed five times in England alone. Yet after deducting brokers' commissions, interest on bonds, repurchases to sustain the market, and other expenses, the net amount realized on the $15,000,000 of bonds was only $6,500,000. The Confederate cruisers were paid for out of the net amount received.

At the beginning of 1863 Mr. Memminger addressed himself to the task of getting his Treasury notes funded into bonds. He recommended that a bill be passed providing that notes not funded before August 1, 1863, should cease to be currency and cease to be convertible. The Confederate Congress passed a bill with elaborate provisions to carry this plan into effect. It contained also provisions for issuing new notes to the amount of $50,000,000 per month. This attempt to brand the old notes while issuing new ones threw the currency into worse disorders than before. The Richmond banks refused to receive the old notes as

deposits, and the Virginia legislature ordered that they should not be received for state taxes. Newspapers denounced the act of Congress as repudiation. The noteholders, seeing that the old notes were likely to become worthless, now hastened to fund them, and actually sent in $125,000,000 in three months of 1863, but in these three months $150,000,000 of new notes had been issued. The total amount outstanding on January 1, 1864, was upwards of $700,000,000, and the gold quotation was $20 for $1. Only $5,000,000 was raised during the year by taxation. The total debt of the Confederacy was now $1,221,000,000.

Partial Repudiation. Various schemes of repudiation were now on foot. They took shape eventually in a bill (passed February 17, 1864) providing that all outstanding notes smaller than $5 should be convertible into bonds and receivable at par till July 1, 1864, and thereafter be taxed out of existence within the year. Simultaneously another issue of notes was authorized (a sort of "new tenor," like the secondary issues of colonial bills of credit), for which the old notes, except those of $100 and upward, could be exchanged at the rate of $3 old for $2 new; $426,000,000 were so exchanged. The currency had now become unmanageable. The $100 notes continued to circulate after they had been outlawed. There was active funding for some months after the passage of this bill, and its effect was shown in a decline of the gold quotation from $23 to $17 for $1; but when the new notes came out, it rose again to $23 in September, and reached $40 before the end of the year. The volume of currency was now fully $1,000,000,000. The old notes and the new ones circulated side by side, were equally discredited, and continued to depreciate together. They passed in trade at the same rates. The credit of the Confederate government was now shattered, and Mr. Memminger resigned his office in midsummer, 1864.

Final Collapse. Memminger was succeeded by George A. Trenholm of Charleston. The latter was not slow to perceive that compulsory funding had been a grave mistake. "Apprehensions of ultimate repudiation," he wrote to Governor Bonham, "crept like an all-pervading poison into the minds of the people, and greatly circumscribed and diminished the purchasing power of the notes."

In January, 1865, the gold quotation was $53 for $1. Secretary Trenholm proposed to reverse the policy of compulsory funding, in order to save the government's credit, but it was too late. A bill to carry Mr. Trenholm's plan into effect was passed by the House, but failed in the Senate. There was nothing to do now but to make fresh issues of notes, although the previous law for this purpose contained a pledge that there should be no more. In March, 1865, a bill for $80,000,000 of "new tenor" was passed over the President's veto. There was some talk about heavier taxes on exports and imports, although there were none to be taxed. The last scheme was for a specie loan of $3,000,000, failing which there was to be a tax of 25 per cent on all the specie in the Confederacy. This singling out of one kind of property, and putting on it a tax of one fourth of its value, was confiscation. The Richmond banks, which were most exposed to the application of force, advanced $300,000, and almost immediately thereafter the Confederacy collapsed.

Almost every blunder that it was possible to commit in national finance was committed by the Confederacy, and on a gigantic scale. The initial one was the failure to tax. The direct tax on the states, as we have seen, was largely met by borrowing, and this was additional to the Confederate borrowing and in the same field. In 1863 the Confederate Congress was awakened to the necessity of taxing the people by its own machinery, but it was now too late to do so effectively. The population was sparse, the means of communication slow, and the territory to be covered wide, with much of it in possession of the Union forces. Worst of all, the swelling volume of the currency inflated the prices of property so that a given rate of taxation payable in dollars yielded a constantly lessening value. In order to overcome this difficulty a system of tithing was enacted, that is, a tax payable in produce, of the kinds needed by the army. This system was grossly unjust to the farmers. The man who had to pay $100 in currency, and the one who had to contribute one hundred bushels of corn, did not stand on the same footing. The former might pay in 1863 not more than $10 in value measured by gold, and not more than $5 in 1864, while the one hundred bushels of corn contributed by the

latter remained a fixed, unshrinkable quantity. The farmers made so stout a resistance to the tithing system that it yielded very small returns.

The next blunder in Confederate finance was that of paying interest on loans in irredeemable paper. It must not be assumed that there was no other alternative. No other was ever tried. It would have been time enough to fall into the pit when it could not be avoided. The government should have bought specie at the market price and paid the interest on the bonds with it, in order to support the public credit.

The third and fatal folly of the Confederacy was the compulsory funding act. No casuistry could disguise this step. It was repudiation, and it brought its own speedy punishment. If military events had not brought the Confederacy to an end in April, 1865, it must have collapsed financially about that time. In other words, the power to supply the army in the field with food, clothing, arms, and ammunition could not have continued much longer. The blockade of the Confederacy, of course, intensified its financial difficulties. Secretary Memminger attributed his failure to it. Indeed, if it had had free communication with Europe the Confederacy might have survived the errors of its Treasury Department and the war might have had a different ending.

State and Private Currency. The note issues of the separate states are of importance in connection with those of the Confederacy as throwing light on the course of a paper currency unregulated by redemption in specie and unrestrained by anything except the whims of legislatures. The "wants of trade" in respect of money are never so imperious as when governments are issuing irredeemable notes. Prices of commodities advanced faster than the price of gold. This was because dealers made an extra charge for goods, by way of insurance against fluctuations in price. The advance of prices absorbed the new currency and created an abnormal demand for more. The appetite was shared by the state governments, by cities and counties, by banks, by railroad and other corporations; and finally the right of issue was assumed by private persons, such as tobacconists, grocers, barbers, and milk dealers, who issued tickets, which they gave out as change in the

ordinary course of trade and promised to redeem in goods or services. Alabama began with an issue of $1,000,000 of state notes as early as February, 1861, and the amount was increased later to $3,500,000. These were receivable for state taxes. Georgia issued $18,000,000 of state notes redeemable in Confederate notes. These were in effect an addition of that sum to the Confederate currency. Mississippi made liberal issues to relieve the distressed cotton-planters. All the states east of the Mississippi River issued notes. The city of Richmond issued scrip in denominations from 25 cents to $2. Charleston, Pensacola, Augusta, and other cities followed suit. Georgia granted "banking privileges," which meant the right to issue notes, to two railroad companies. Factories, turnpike companies, insurance companies, and others assumed this right either with or without legislative authority. Money was as nearly equal to the wants of trade as the printing press could make it. The state legislatures at last attempted to prevent the circulation of personal and corporate notes, but the evil had grown beyond their reach. Virginia passed three acts for this purpose, but they could not be enforced. People considered these private notes as good as the public ones (as they were), and so continued to accept them. The banks issued their own notes freely, since they were not obliged to redeem them, suspension having been legalized in all the states.

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CHAPTER X

AFTER THE CIVIL WAR

The money circulating among the people is a powerful educator. It teaches either truth or falsehood. Sometimes the results of its false teachings are merely whimsical; more often they are disastrous.

An interesting example of this is that after the formation of the Latin Monetary Union a million and a half of silver francs of the coinage of the Papal States rushed into France with those of Italy proper, although the papal government was not a member of the union. These coins bore the effigy of Pope Pius IX. They gradually found their way into the pockets of the least intelligent members of the community. In 1875 there was a loss of two sous on each of these Roman francs, and in some parts of France the Roman Catholic priests lost their influence with the peasants in consequence. The latter put the blame of their loss on the Pope and on the priests as agents of the Pope. One of the consequences of this delusion was that all candidates for the Chamber of Deputies who were supported by the priests were defeated by the votes of the peasants. It was useless to say to these people that they ought not to have accepted the Roman coins, that the Papal States were not members of the Monetary Union, and that neither the Pope nor the priests were to blame. The people could not understand such things. The only facts they could grasp were the Pope's effigy on the coins and the loss of the two sous.

Paying Bonds with Greenbacks. Our legal-tender act taught people false notions. First it led large numbers of unreflecting persons to believe that the government can make money. If the government can do so, people argued that it ought to make money plentiful. The legal-tender act led to the belief also that the government's bonds were payable in greenbacks. The act said that

the notes should be lawful money and a legal tender for all debts, public and private, within the United States except duties on imports and interest on government bonds. These words printed on the greenbacks led multitudes of people to think that the government could rightfully pay the first piece of paper with a second one. If it could do so, it could pay the second with the first. Thus, by swapping one for the other, the whole debt might be paid without taxation. As all other governments could do what we could, all national debts might be settled in a twinkling. But there would be no need of taking the trouble to exchange an interest-bearing bond for a non-interest-bearing note. The whole debt could be canceled by simply passing a law saying, "All bonds of the United States are legal tender and shall cease to bear interest after the passage of this act."

The policy of paying the 5–20 bonds in greenbacks was advocated by General Butler in the Republican party, and by George H. Pendleton in the Democratic, immediately after the close of the war. Both of them were defeated in their respective national conventions in 1868, but in different ways. The Republican Convention discountenanced in its platform the payment of the bonds in greenbacks. The Democratic Convention favored it, but rejected Mr. Pendleton as a candidate for the presidency, and nominated Horatio Seymour, who was strongly opposed to that policy. The Republicans carried the election, and soon thereafter (March 18, 1869) Congress passed an act declaring that all government obligations were payable in coin unless the law under which they were issued expressly provided for some other payment.

This did not put an end to the controversy, however. The fight was long and bitter. If the question of paying the bonds with greenbacks had been referred to popular vote at any time between the end of the war and the resumption of specie payments, the result would have been very doubtful.

Policy of Contraction. In his annual report, December, 1865, the Secretary of the Treasury, Mr. Hugh McCulloch, recommended the policy of contracting the currency with a view to the early resumption of specie payments. The House of Representatives, on December 18, by a vote of 144 to 6, adopted a resolution

"cordially concurring" in the recommendation. An act to carry that policy into effect was passed April 12, 1866. It authorized the Secretary to sell bonds for the purpose of "retiring Treasury notes or other obligations issued under any act of Congress, . . . *provided* that, of the United States notes, not more than $10,000,000 may be retired and canceled within six months from the passage of this act, and thereafter not more than $4,000,000 in any one month."

In February, 1868, Congress suspended the reduction of the currency under the foregoing act. The act thus repealed had been in force twenty-one months, and $44,000,000 of the greenbacks had been retired, but the Secretary had not exercised his full powers under it. The amount outstanding when the cancellation was suspended was $356,000,000.

Greenbacks Reissued. In 1870 and 1871 the Secretary of the Treasury, Mr. George S. Boutwell, issued $6,000,000 of legal-tender notes in lieu of those retired by his predecessor, Mr. McCulloch, showing that, according to his view, those notes were still legally in existence, although they had been actually withdrawn and canceled. The Senate Committee on Finance made a report upon this action, holding that the Secretary had no power to issue notes for any portion of those retired under the act of 1866. Although Congress took no action on the report, Secretary Boutwell retired a large part of the reissued notes, and his successor, Mr. Richardson, retired the remainder. Soon afterward Secretary Richardson himself reissued $26,000,000 of the retired notes in a vain attempt to check the financial panic of 1873, thus bringing the whole amount up to $382,000,000.

Inflation Bill of 1874. In February, 1874, the Senate Committee on Finance reported a bill, the first section of which fixed the maximum amount of United States notes at $382,000,000, and the second section provided that, on January 1, 1876, the Secretary of the Treasury should either exchange gold coin at par for United States notes, or give 5 per cent bonds for them on the demand of any holder of the notes. The bill was amended in the Senate by inserting $400,000,000 instead of $382,000,000 and by striking out the second section altogether. This was known as the Inflation Bill, as it sanctioned the policy of adding to the volume

of an irredeemable currency in time of peace. It passed both houses, but was vetoed by President Grant, who thereby rendered the country a great service. Yet he intended at one time to sign the bill and had written a paper to accompany his approval of it. Congress then hurriedly passed another bill fixing the maximum amount of legal-tender notes at $382,000,000, which was signed by the President June 22.

Specie-Resumption Act of 1875. The Inflation Bill having been a Republican measure and vetoed by a Republican President, the party was left in a position of great embarrassment, and was badly beaten in the congressional elections of that year. It could neither inflate nor stand still. The only other course was to take steps for resuming specie payments. It improved the few remaining weeks of its power to pass a bill for this purpose. The bill was reported from the Committee on Finance by Senator Sherman, December 21, 1874, and passed the following day without any change. It first removed certain restrictions upon the circulation of national banks and provided that the Secretary of the Treasury should "redeem" greenbacks to the amount of 80 per cent of the new bank notes issued, until the total volume, which was then $382,000,000, should be reduced to $300,000,000. It provided that the Secretary should, "on and after January 1, 1879, redeem in coin the United States legal-tender notes then outstanding, on their presentation for redemption at the office of the assistant treasurer of the United States in the city of New York, in sums of not less than fifty dollars." The selling of bonds to provide means for redemption was authorized without limit as to amount.

The word "redeem" was used in the act in two places without any definition of its meaning. Ordinarily the redemption of a promissory note means paying and canceling it, and this was the necessary meaning of the word in the place where it was first employed. It meant that the volume of greenbacks should be reduced to $300,000,000 by retiring and canceling the excess over that sum, for if the excess were not canceled the reduction could not take place. The true meaning of the word having been determined in one part of the act, its use in another part would have been clear and binding upon all courts of law; but Senator Sher-

man, when asked whether the greenbacks which should be redeemed would be put out of existence, refused to answer the question. The bill passed both houses without any explanation on this point, and became a law January 14, 1875.

Attempts to Repeal It. All doubts were resolved by Congress itself three years later. October 31, 1877, the House Committee on Banking and Currency reported a bill to repeal the specie resumption act, and this was passed by the House November 23, by a vote of 133 to 120. At this time the Democrats had a majority of twenty in the House. The Senate was composed of thirty-eight Republicans, thirty-seven Democrats, and one Independent (Davis, of Illinois), who usually voted with the Democrats on financial measures. The Senate rejected this measure by a majority of one vote only. April 29 the House passed a bill, 177 to 35, without debate, forbidding the retiring or canceling of any more legal-tender notes and providing that any thereafter redeemed should be reissued, paid out, and kept in circulation. This bill was concurred in by the Senate, 41 to 18. Before its passage Senator Bayard offered an amendment that notes once redeemed should not thereafter be legal tender between individuals, but this was rejected, 18 to 42. This measure became a law May 31, 1878. At that time the volume of greenbacks outstanding was $346,681,016, at which it still remains.

The passage of the specie-resumption act was followed by a battle at the polls the following year. The center of this engagement was in the state of Ohio, where the Democrats had declared in their platform that the amount of money ought to be made "equal to the wants of trade." This sophism was slain by Carl Schurz in a speech at Cincinnati, which decided the campaign. The phrase "equal to the wants of trade" means the wants of anybody in trade. It also requires measures to put the person in possession of what he wants. Since all must be treated alike, it follows that everybody must be served with greenbacks at the public treasury till he says he has enough. To give everybody all the greenbacks he wants would give nobody an advantage, except by canceling past debts. Therefore an act of Congress canceling all debts would accomplish the same end more expeditiously.

Resumption Accomplished. The immediate result of the voting in Ohio in 1875 was the election of Rutherford B. Hayes as governor. A secondary result was his elevation to the presidency the following year. He appointed John Sherman Secretary of the Treasury. During 1877 and the following year Mr. Sherman was engaged in refunding the national debt in pursuance of the act of July 14, 1870. In connection with this negotiation he arranged with a banking syndicate for the sale of new bonds under the resumption act, by which he was to receive gold coin at the rate of $5,000,000 per month. Before December 31, 1878, he had accumulated $95,500,000 in this way, and the Treasury held about $20,000,000 additional derived from customs duties. The law had prescribed no plan of resumption. Everything had been left to the Secretary's discretion and to the chapter of accidents. This laxity of Congress was due in part to a general disbelief that resumption would or could be accomplished under that act. When the time approached and the decline of the gold premium betokened a strong probability that the law would be carried into effect, the agitation in both political and financial circles was extreme. On December 17 the premium on gold disappeared quietly and the Gold Exchange was closed because there was nothing for its members to do. On January 1, 1879, the Treasury offered to redeem its legal-tender notes, but none were presented for that purpose. The banks of the large cities had previously kept two kinds of accounts with such of their customers as desired them, one in paper and one in gold. They now discontinued this practice and kept accounts only in "dollars." Therefore nobody had any motive to draw gold from the Treasury to deposit in banks.

Gold Imports in 1879 and 1880. The chapter of accidents did more than anybody had anticipated. The year 1879 proved to be the most remarkable in our history in a commercial sense. The crops of wheat, corn, and cotton were unexampled in magnitude and excellence, while those of the Old World were extremely deficient. The balance of trade turned in our favor suddenly and strongly. This condition of things was repeated on a somewhat smaller scale in the harvests of 1880. The two years witnessed im-

portations of gold to the amount of $175,000,000, putting the immediate success of specie resumption beyond peradventure.

The $100,000,000 Reserve. No reserve for maintaining specie payments had been fixed in the law nor was the need of any reserve recognized until 1882, when the subject was brought to the attention of the Senate in an incidental way. A bill to amend the National Bank Act was under consideration. A section relating to gold certificates of deposit was embraced in it.[1] On June 21, in that year, Senator Aldrich moved an amendment to it by providing that the Secretary of the Treasury might, in his discretion, suspend the issue of such certificates whenever the amount of gold in the Treasury available for the redemption of United States notes should fall below $100,000,000.

The object of the amendment was to prevent the holders of greenbacks from drawing gold from the Treasury, redepositing it there, and taking gold certificates for it, all at one operation, thus perhaps possessing themselves of all the gold in the Treasury and at the same time using the government's vaults as a free safe depository. Senator Allison remarked, while this amendment was under consideration, that "thus far there has been no absolute definition of what the reserve fund should amount to." In order to supply such a definition, Senator Ingalls moved to amend the amendment, making it read as follows:

Provided, that the Secretary of the Treasury shall suspend the issue of such gold certificates whenever the amount of gold coin and gold bullion in the Treasury *reserved* for the redemption of United States notes falls below one hundred millions of dollars.

In this form it became a law, July 12, 1882, and thus a reserve of $100,000,000 gold in the Treasury for the redemption of United States notes was recognized as existing, although not established

[1] The issue of gold certificates had been authorized by Section 5 of the act of March 3, 1863, in these terms: "That the Secretary of the Treasury is hereby authorized to receive deposits of gold coin and bullion with the Treasurer or any assistant treasurer of the United States, in sums not less than $20 and to issue certificates therefor in denominations not less than $20 each, corresponding with the denominations of United States notes. The coin and bullion deposited for, or representing, the certificates of deposit shall be retained in the Treasury for the payment of the same on demand."

by affirmative legislation. It created in men's minds the habit of considering the greenbacks as redeemable in gold at the option of the holder, although they were legally redeemable in gold or silver at the option of the government.

The Sherman Act. On July 14, 1890, Congress passed an act for the issue of an indefinite amount of legal-tender notes for the purchase of silver bullion. This is commonly called the Sherman Act. It was a part of the silver legislation treated in the following chapter. The notes were to be redeemed on demand in "coin," either gold or silver, at the discretion of the Secretary of the Treasury, but it was declared in the words of the act to be "the established policy of the United States to maintain the two metals on a parity with each other upon the present legal ratio or such ratio as may be established by law." This was a hint rather than a command to the Secretary in favor of gold redemption. The notes were declared in the act to be "legal tender in payment of all debts, public and private, except where otherwise expressly stipulated in the contract." In practical effect this was a fresh issue of greenbacks in time of peace, and of unlimited amount. The only restriction in the law was as to the rate of issue, which was to be the sum necessary to pay for 4,500,000 ounces of silver bullion each month at the market price. Nearly $156,000,000 of these notes were issued. A financial panic of great severity ensued, and the act was repealed November 1, 1893.

The act of 1890 was not grounded upon financial considerations. It was part of a political trade. In the Senate, April 29, 1896, Senator Teller of Colorado gave what he called the "unvarnished history" of the Sherman Act, which has never been contradicted. He said that the Republicans desired to pass the McKinley tariff bill. The silver men desired to pass a free-coinage bill. The latter had a majority in the Senate, with power to adopt a free-coinage clause as an amendment to the tariff bill and thus compel the House to adopt it or lose the latter bill altogether. They did not follow that plan because they knew that President Harrison would veto a free-coinage bill, even if, in doing this, he should kill the tariff bill. So the silver Senators determined to adopt, not a free-coinage measure, which would certainly be vetoed, but the nearest

possible approach to it, and put this measure on its passage ahead of the tariff bill. This was done, as the following legislative record shows in detail:

May 17, 1890. The McKinley tariff bill passed the House.
June 5. Mr. McKinley moved in the House to take up the Windom silver bill, which was amended by adopting the Conger substitute, and passed June 7, by 135 to 119.
June 17. The Senate took up the House silver bill, amended it by adopting the Plumb substitute (a free-coinage measure), and passed it by 42 to 25.
June 25. The House took up the silver bill, nonconcurred in the Senate amendment, and asked a conference.
July 7. The conference committee reported the Sherman bill, which was adopted by the House on that day and by the Senate July 10.
July 14. The Sherman silver bill was approved by the President.
July 25. The McKinley tariff bill was taken up by the Senate and passed September 11.

Thus the Sherman silver bill was passed by the Republicans as the price of the McKinley tariff. Mr. McKinley himself was an ardent advocate of the former measure. "Vote against this bill," he said (June 7, 1890), "and in my judgment you vote that there shall be no legislation on the silver question at this session of Congress. That is what I fear it means. We know we cannot have free coinage now except in the manner as provided in this bill."

The Treasury Deficit. The McKinley tariff bill repealed the duties on sugar and molasses, which had yielded $55,000,000 of revenue in the fiscal year 1890, and the Sherman silver bill added about $50,000,000 per year to the public expenses for the purchase of silver bullion. These two measures exactly canceled the surplus revenue ($105,000,000) of the year 1890, and a new pension bill added $50,000,000 more to the expenditures in 1893, when it came into full operation. Thus the ingredients of a witch's cauldron, in the shape of a Treasury deficit and a financial panic, were collected for President Cleveland's second administration.

Gold Exports. That the country had a sufficiency of instruments of exchange in the summer of 1890, before the Sherman Act was passed, is proved by the fact that we exported about as many

gold dollars as we obtained of new paper ones while the act was in operation. The output of new legal-tender notes to July 1, 1893, was $140,661,694, and the net export of gold during the same time was $141,017,158. This coincidence was not accidental. Whenever there is an excess of instruments of exchange forced into circulation by their legal-tender faculty, one of two things will happen. If they are redeemable in gold, there will be an outflow of that metal. If not redeemable, there will be a depreciation of the whole mass. The great exportation of gold in the years following the passage of the Sherman Act is thus easily accounted for, but it was stimulated by the alarm of investors lest specie payments should be suspended.

The Currency Act of 1900. On March 14, 1900, Congress passed "an act to define and fix the standard of value, to maintain the parity of all forms of money issued or coined by the United States, to refund the public debt, and for other purposes." This is commonly but mistakenly called the "Gold Standard Act," whereas the gold standard was established by the act of February 12, 1873. The act of 1900 reaffirmed the earlier act, but it also contained important specific provisions for maintaining the gold standard. It provided in direct terms that all the legal-tender notes should be redeemed in gold coin on demand and that a reserve of $150,000,000 of gold coin and bullion should be kept in the Treasury for this purpose solely; that notes redeemed out of this fund should not be reissued except in exchange for gold; that if the fund should at any time fall below $100,000,000, it should be restored to the maximum sum of $150,000,000 by the sale of bonds, and that none of the proceeds of such sales of bonds should be used to meet deficiencies of the current revenues.

It was also provided that there should be a complete separation of the currency functions of the Treasury from its fiscal operations. Bureaus, or divisions, of issue and redemption were established in the department, to which were transferred all the funds held for the redemption of greenbacks, Treasury notes, gold certificates, silver certificates, and currency certificates. These were to be held as trust funds exclusively, and were not to be mixed with the ordinary receipts and disbursements of the government. The

need of this provision had been demonstrated by the events of President Cleveland's second term (1893–1897), when the deficiencies of revenue amounted in the aggregate to $155,000,000, forcing the Secretary of the Treasury to draw upon the gold reserve to meet the current expenses of the government.

The Endless Chain. This phenomenon was designated in common parlance "the endless chain." The phrase was a misnomer. It implied that there was something in the nature of the greenback peculiarly adapted to the purpose of pumping gold out of the Treasury indefinitely. In practice the holders of the notes presented them at the Treasury for redemption. After redeeming them the Secretary paid them out again, for lack of other money. Then they were presented for redemption a second time, and so on. But if the Secretary had had a surplus of daily receipts over daily expenses, the same greenbacks could not have been presented for redemption twice without his consent. Hence the endless chain could not have existed. Under the act of 1900, which separated the currency function from the other operations of the Treasury, no such trouble could arise. Shortage of revenue could not vitiate the money in the pockets of the people and disturb their equanimity. Thus the act of 1900 did much to maintain the gold standard which had been established by law twenty-seven years earlier.

Treasury Notes Retired. The Treasury notes of 1890 are now almost all retired. In the war-revenue act of June 13, 1898, the Secretary of the Treasury was directed to coin the silver bullion bought under the act of 1890 into silver dollars at the rate of not less than $1,500,000 per month. The act of 1900 provided that, as they were coined, an equal amount of the Treasury notes which had been issued to pay for the bullion should be canceled as fast as they should come into the possession of the government, and that silver certificates should be issued in place of them. The effect of this measure was to lessen the direct liabilities of the gold reserve by the sum of $156,000,000 and to add that amount to the silver currency, plus $62,000,000 derived from seigniorage, which was the number of silver dollars that the bullion would yield over and above the cost of the metal. Authority was granted in the act of 1900 to use a part of this bullion (about $20,000,000) for

subsidiary coinage, in order to bring the total volume of the latter up to $100,000,000, a corresponding amount of Treasury notes to be canceled.

Currency Issued, 1893–1900. The Secretary of the Treasury was directed to resume the issue of gold certificates, in denominations not less than $20, in exchange for gold coin deposited in the Treasury. The issue of gold certificates had been suspended in 1893, in compliance with the law which said that this should be done whenever the amount of gold in the Treasury fell below $100,000,000. It was also provided that thereafter silver certificates should be issued only in denominations of $10 and under, and that greenbacks should be issued only in denominations of $10 and upward. The Secretary was authorized, in his discretion, to issue a small amount of silver certificates in denominations of $20, $50, and $100, not more than 10 per cent of the whole amount outstanding. The object aimed at in lowering the denominations of silver certificates and raising those of greenbacks was to give the field of retail trade as much as possible to the silver certificates.

The issue of currency certificates was discontinued by the act of 1900. These had been authorized by the act of June 8, 1872. Under it any national bank might deposit United States notes in the Treasury, in sums of not less than $10,000, and receive certificates of deposit, in denominations of not less than $5000 each, the notes to be held as special deposits and to be used only for the redemption of the certificates. These were issued for the convenience of banks in settling clearinghouse balances. The reason for discontinuing their issue was that, as there was a plentiful supply of gold certificates for clearinghouse purposes, currency certificates were no longer needed.

CHAPTER XI

SILVER DOLLARS AND THE PANIC OF 1893

While Secretary Sherman was selling bonds for gold, to prepare for the resumption of specie payments, Congress was passing a bill for the remonetization of silver. In 1876 this metal had declined 9 per cent from our old ratio of 16 to 1. The currency expansionists, who had been sorely disappointed by President Grant's veto of the Inflation Bill and by the loss of the Ohio election, turned eagerly to silver, as a means of accomplishing the ends which they had failed to reach with greenbacks. Silver, they said, was a product of labor. Its quantity could not be increased suddenly. It was the dollar of our fathers. It was the dollar of the poor man, of the debtor, of the common people. Looking at the law, they discovered that the silver dollar had been abolished by an act of Congress, passed in 1873, and that those of them who were members of Congress at that time had voted for it. So they said that they had been tricked and deceived, that this act of 1873 was a conspiracy against the debtor class, and that it was passed in a clandestine manner. They declared that this was a great wrong. Many people who had no particular interest to be served by inflation really thought that a wrong had been done. Some of them even thought that the wrong had been done to silver itself, by depriving it of the "legal right of coinage."

The "Crime of '73." The charge that the act of 1873 was passed secretly was absurd on its face, since there is no way under our system of government to pass a law secretly. The act was called the "Crime of '73"; and the accusation was reiterated frequently and supported by forged documents and false swearing in the political campaigns of twenty successive years. Due diligence had been shown by the framers and promoters of the law to publish and explain its provisions, but very few persons, either in

or out of Congress, took any interest in the question; and of those who did so nearly all were in favor of its passage. Nor would any charge of fraud and secrecy have been brought against the supporters of the measure, if silver had not subsequently fallen in value. The bill was introduced in both houses in 1870, at which time 16 ounces of silver were worth 40 cents more than 1 ounce of gold. Nor was there any time during the three years that the measure was pending in Congress when silver was worth less than gold according to the legal ratio. Hence there was no motive for deception. The persistence of the charge of fraud during so long a period of time, in the face of so many opposing facts, is one of the most singular episodes in our political annals.

Movement for Remonetization. The movement for the remonetization of silver acquired considerable strength in 1876. The opponents of the Inflation Bill were taken by surprise when the controversy assumed this new form. Moreover, the question of bimetallism was something new and strange. Many persons who had considered greenback inflation ruinous were glad to have escaped the evil of unlimited paper but could see no harm in silver dollars.

The opponents of silver were of three classes: (1) those who were opposed to it in any form except as subsidiary coin; (2) those who were opposed to free coinage except by international agreement; (3) those who did not believe that an international agreement was practicable but who wanted to gain time, hoping that the excitement would pass away. The advocates of silver were likewise of different types: (1) The silver-miners, who wanted to sustain the price of their product; (2) the currency inflationists, who had been defeated and were glad to find a new weapon to their hand in place of the greenback;[1] (3) a multitude of misin-

[1] Professor Charles J. Bullock, in his *Essays on the Monetary History of the United States*, shows by statistics that the support of the silver movement in the several states was generally in inverse proportion to the density of population and the abundance of capital. Thus eleven states whose density was above 60 per square mile supported the gold standard in the election of 1896. Of eighteen states whose density was between 21 and 46, only eight supported the gold standard. Of sixteen states whose density was less than 18, only four supported the gold standard. Scarcity of capital was an additional reason for the growth of the silver movement.

formed persons, who thought that an injustice, if not a fraud, had been committed in the demonetization act of 1873.

The Bland-Allison Act. On July 26, 1876, just before the adjournment of Congress, Mr. Kelley of Pennsylvania introduced a bill to restore the coinage of the silver dollar, as it had existed prior to the act of 1873, and moved to pass it under suspension of the rules, which required a two-thirds majority. The bill failed: yeas 119, nays 68. A similar bill was introduced by Mr. Bland of Missouri the following year, and was passed by the House November 5, 1877, by 164 to 34.

In order to defeat free coinage and gain time, some of its opponents in the Senate said that it would not be right to give to those who happened to be the owners of silver bullion, or who were digging it out of the ground, an advantage of 9 per cent over everybody else; that this profit ought to accrue to the government; that, since the government had no silver bullion, it ought to purchase a certain quantity at the market price, coin it, and sell the resulting coins to the people, or use them to pay its expenses or to buy more bullion. This was a plausible argument to defeat the Bland bill and was probably the only one by which a free-coinage bill could have been prevented from passing at that time. An amendment proposed by Senator Allison — providing for the purchase of not less than $2,000,000 worth, and not more than $4,000,000 worth, of silver bullion each month, to be coined into dollars of full legal tender and to be paid out like any other money in the Treasury — was adopted by the Senate and accepted by the House. The bill was vetoed by President Hayes, on the ground mainly that it embodied a violation of contracts which had been entered into since 1873, by introducing a less valuable payment than was contemplated by the parties. The bill was, however, passed over the veto and became a law February 28, 1878. The votes taken in the House fairly represented the state of public opinion at the time. There were 73 votes to sustain the President's veto — that is, against silver in any form — and 196 in favor of the limited coinage of the Allison amendment. As between the latter and the original Bland bill the vote was 203 to 72. The party of moderation and compromise exceeded the extremists

on both sides. One section of the Allison amendment, which authorized the President to invite an international monetary conference, led to the Paris conference of 1878. Another section authorized any holder of silver dollars to receive certificates of deposit from the Treasury in exchange for them, in denominations not less than $10, such certificates to be receivable for all government dues.

On November 12, 1878, the New York Clearing House, after a personal conference with Secretary Sherman and in anticipation of the resumption of specie payments, voted to admit the subtreasury to the clearinghouse, for the purpose of settling balances between the government and the banks; to receive and pay balances in gold or in legal-tender notes; to prohibit payment of balances in silver dollars or silver certificates, except in sums under $10; and to receive silver dollars from customers as deposits only under special contract to withdraw the same in kind.

In 1882 Congress passed an act amendatory of the national banking law. In it was inserted a provision that "no national banking association shall be a member of any clearinghouse in which such [silver] certificates shall not be receivable for clearinghouse balances." The New York Clearing House thereupon rescinded its rule discriminating against silver certificates but did not discontinue the practice. The members voluntarily declined to pay them to each other.

The Bland-Allison Act did not make money more plentiful than it would otherwise have been, but merely substituted silver in place of gold. Two operations were going on, side by side. The mint, regarded as a manufactory, was paying out gold already in its possession, in order to purchase silver bullion, and was selling the coins so produced, crediting itself with the seigniorage, that is, the difference between the raw material and the finished product. On the other hand, the people needed a certain number of instruments of exchange, called dollars, for the transaction of their daily business. These instruments they paid for with their labor and their property, at the rate of 100 cents gold per dollar. Obviously they could have whichever metal they preferred, since gold value will always bring gold. Thus the bill did not make money more

plentiful, although it seemed to do so, but merely substituted one kind of money for another.

The mode of operation was as follows: The government bought (say) $2,500,000 worth of silver bullion, paying gold for it. When the silver dollars were produced, it might pay them out like any other money or it might make its next purchase of silver bullion with the dollars or the certificates resulting from the last purchase. If there was a public demand for this kind of money, the dollars would stay out. If not, they would come back to the Treasury through the customhouse and the tax office, taking the place of gold in the payment of government dues.

The officers of the Treasury were slow in learning how to ward off the evils of this queer kind of currency, of which they had had no previous experience. Each secretary restricted the coinage of silver dollars to the lowest amount permitted by the law, namely, $2,500,000 per month, or $30,000,000 per year. As the coins were bulky and inconvenient, the people refused to take any large quantity. At the end of June, 1879, only $8,000,000 had gone into circulation, out of $36,000,000 coined. The remainder were in the Treasury, an inert mass. Inasmuch as the government had a surplus of revenue more than sufficient to pay for the monthly purchase of silver bullion, no present harm resulted.[1]

The prosperity resulting from the crop conditions of 1879 and 1880 called for an increase of the circulating medium, and not merely led to the large importations of gold referred to in the preceding chapter, but drew out of the Treasury nearly all the accumulated silver. This was taken in the form of certificates, in exchange for gold. The movement was accelerated by an offer, on the part of the Treasury, to pay silver certificates in the West and South, in exchange for gold deposited in the subtreasury at New York. Whenever the rate of exchange was in favor of the West and South, the person desiring to make remittances could save express charges by accepting the government's offer. In this way the surplus silver in the Treasury was worked off for the time being. "For the three years 1881, 1882, and 1883, the silver cur-

[1] See Taussig's *Silver Situation in the United States* (second edition), which may be studied with profit for all periods down to the end of 1896.

rency was absorbed by the public as fast as the dollars were coined at the mint." [1]

Crisis in 1884. A trade reaction began in 1884. The silver already in circulation remained there, but the annual addition continued. As fast as it was paid out by the Treasury, it returned in the receipts for taxes. Simultaneously the public revenue began to decline, and the gold reserve showed a shrinkage of $34,000,000 in 1884–1885. Gold receipts for customs duties fell from 75 per cent of the whole to 36 per cent, and silver receipts rose from 17 per cent to 36 per cent, the other receipts being greenbacks. In Boston, where the banks made no discrimination against silver, the certificates constituted so large a part of the circulation that, when it became necessary to send money by express to New York, a sufficiency of gold or greenbacks could not be obtained, and a premium of one half of 1 per cent on funds bankable in New York prevailed in Boston for a short time. The New York banks even turned in $6,000,000 of their gold to the Treasury, in exchange for fractional currency, in order to avert the use of silver certificates by the Treasury in the settlement of clearinghouse balances there.

In 1885 the Secretary of the Treasury, Mr. Manning, perceived that the true method of utilizing the silver currency was to force it into retail trade. To make room for it, he gave orders to stop the issue of greenbacks of less denomination than $5 and to retain all such that came into the Treasury in the way of collections, in order to create a necessity for the use of silver. In 1886 he procured from Congress authority to issue silver certificates of the denominations of $1, $2, and $5. As national-bank notes smaller than $5 had been forbidden some years earlier, the field of small paper circulation was thus secured for silver certificates. Thereupon the demand for them became very large, rising in 1890 to $175,000,000 in denominations of $5 and under, and to $293,000,000 in all. The number of coined dollars in circulation at that time was $56,000,000 in addition.

The introduction of small silver certificates happened to coincide with a shrinkage of the volume of national-bank notes due to

[1] Taussig, *Silver Situation in the United States*, p. 24.

the redemption of the 3 per cent bonds and to a rapid advance in the price of other bonds, which made it profitable for the banks to retire their circulation, sell their bonds, and realize the premium.[1] One hundred and sixty-eight million dollars of the bank notes were retired between November, 1882, and February, 1890, that is, in seven years and three months. The output of silver dollars during the same period was only $50,000,000 in excess of the bank notes retired.

Panic Predicted. When the silver-coinage act was passed in 1878, its opponents predicted that sooner or later it would cause a financial panic. They said that, since the metallic value of the silver dollars was not equal to the face value, they were simply a new kind of fiat money, and that, whenever they should become redundant, they would act like any other fiat money — like the greenbacks at the beginning of the Civil War, for example. There would then be a change in the standard of value, if the coinage were continued. This was a true prophecy, but the fulfillment was delayed by the shrinkage in the national-bank circulation and by the retirement of small greenbacks, which created a vacuum for the new silver to fill. But this was a silent operation. The public could not understand it, and so, as the years rolled on and no harm came from the coining of silver dollars, the predictions of panic fell under popular ridicule.

The Act of 1890. The passage of the Sherman Act of 1890 and the reasons for it have been considered in the preceding chapter. There were now three kinds of fiat money which the government, according to its declared policy, must keep at par with gold, namely, greenbacks, Treasury notes, and silver dollars. All three rested upon the gold resources of the Treasury. Those resources consisted of its accumulated reserve and of its daily receipts. It

[1] "In 1883 upwards of $353,000,000 government bonds were on deposit as a basis of bank-note circulation. Out of this total more than $200,000,000 were in the 3 per cents, and it was naturally these very 3 per cents which the Treasury selected in its public debt redemption [because they were subject to call at par]. Whenever such bonds were called for redemption, the bank possessing them was compelled either to replace them with other government issues bought in the open market, or else to retire its circulating notes." — Noyes, *Forty Years of American Finance*, p. 108.

was immaterial, as regards the government's gold balance, whether redemption was made at the place where the reserve was paid out (the subtreasury) or where the receipts came in (the custom-house). The effect upon the balance was identically the same in the two cases.

Nearly $50,000,000 of new fiat money came into the channels of business the first year after the passage of the Sherman Act; and, as it happened, an equal amount of the surplus in the Treasury was paid out by enlarged appropriation bills passed by Congress. These additions to the circulating medium presaged renewed exports of gold, which took place in the first half of 1891 to the amount $74,000,000, a sum hitherto unexampled for a single period of six months.

Action of Secretary Foster. The harvests of 1891, however, happened to give temporary relief from the consequences of bad financiering. "The United States produced in that year the largest grain crop in its history before or since. While Europe's total wheat yield decreased 156,000,000 bushels from that of 1889, our own crops increased 255,000,000 bushels, the largest American crop on record."[1] The foreign exchanges turned in our favor, and we imported $50,000,000 gold in the six months succeeding the harvest. This was merely a streak of luck. As soon as the foreign demand for our grain was satisfied, the new fiat money began once more to produce its usual effects. Gold exports were resumed in 1892. In November of that year the gold in the Treasury had fallen from $185,000,000 (in August, 1890) to $124,000,000 and was still declining. Secretary Foster was much depressed. When he came to New York to speak at a dinner of the Chamber of Commerce, he said, among other things, that the government intended to maintain gold payments, even if it became necessary to sell government bonds for the purpose. This was an admission on his part that gold payments could not be continued without resorting to extraordinary means. Probably Mr. Foster made this speech in order to test public sentiment and to find out whether he would be sustained in issuing government bonds in time of peace. There had been no increase of the bonded debt since the

[1] Noyes, *Forty Years of American Finance*, p. 164.

close of the Civil War, and some persons in high place denied that there was any legal authority to issue new bonds. Apparently Mr. Foster was satisfied by the applause with which his announced purpose was received by his hearers and by the press, for shortly afterward he issued an order to the Bureau of Engraving and Printing to prepare new bonds. This order was dated February 20, 1893, and Mr. Foster was to go out of office on March 4. Naturally he preferred to put upon his successor the onus of issuing the bonds, if he could. So he came to New York and persuaded the banks to give him a few millions of gold in exchange for legal-tender notes, enough to carry him along till March 4. This enabled him to glide out of office leaving the $100,000,000 redemption fund intact, but with only $982,410 gold in excess of that sum and with the penumbra of a deficit in full view.

The shrinkage of the government's reserve and the continued outpour of fiat money had shaken the confidence of the business communities on both sides of the water. The banks no longer furnished gold to their customers who desired it for export, but gave them legal-tender notes instead. Hitherto no doubt had crossed the minds of the community that the government would redeem its notes on demand, but now it was seriously questioned whether the Treasury could maintain gold payments. The bankers did not know whether the new Secretary of the Treasury, Mr. Carlisle, would take steps to replenish his reserve, and they could not know whether any steps he might take would be effectual. So they kept their gold and paid their debts with legal-tender notes.

Panic of 1893. When Secretary Carlisle came into office, he saw bankruptcy approaching. The gold receipts of the Treasury were now less than 9 per cent of the total receipts. He first followed his predecessor's example by soliciting gold from the banks in New York City. The banks responded by turning $8,000,000 into the Treasury, in exchange for legal tenders. This was quickly dissipated, and on April 15 the Secretary was obliged to acknowledge that the $100,000,000 fund had been encroached upon. It was the first time that this had happened since the fund was created. On the twentieth the Secretary gave a newspaper interview, which was construed by the public to mean that he had

doubts whether the $100,000,000 fund could be lawfully used for the redemption of the Treasury notes of 1890. This was a fresh cause of alarm, which was, however, soothed by a later announcement from President Cleveland that the redemption of those notes in gold would be continued under all circumstances.

On June 26 the news came that the mints of India had been closed to silver, and the price of that metal fell in three days from 82 cents to 67 cents per ounce. A run on the banks began at once. One hundred and fifty-eight national banks and four hundred and fifteen state and private banks were compelled to close their doors.

Commercial Crises. The question has been much discussed whether the financial disturbance of 1893 was a typical commercial crisis or a money panic. A commercial crisis is a shattering of the credit system due to speculation and maladjustment of industry. If the conditions of production and consumption were at all times well balanced, so that no more wheat, cloth, iron, houses, factories, ships, railroads, etc. were produced than could be sold or used at a profit, then each producer would be able to pay his debts promptly and there could be no commercial crisis. But in the complex conditions of modern society no such equable distribution of capital and labor is possible. There is no omniscient eye to tell us when we are producing too much of one thing or putting too much capital and labor into certain lines of business. The commercial world is, accordingly, subject to periodical crazes, in which there is a general rush to buy things and invest money in ways which promise unusual gains. Prices are inflated and particular branches of trade are overloaded and cease to be remunerative. Then the adventurers cannot meet their obligations, and their creditors are crippled or made bankrupt. Lenders of money become alarmed, and the credit system breaks down. The genesis of every true commercial crisis can be traced to such a disproportionate investment of capital in some particular branch or branches of trade and in speculation.

A money panic, on the other hand, may come at a time when trade is in a normal and sound condition. Anything which threatens to impair the quality of the money in circulation may

dry up the springs of credit, cause extensive failures, and produce some of the phenomena of a commercial crisis. Such conditions existed in 1860 and 1861, when a large part of the circulating medium of the country was based on bonds of the Southern states, which were taking steps to secede from the Union. It cannot be denied that there was some unsound trade in 1893, but the one-sided development of industry and the top-heavy stage of speculation which mark the real commercial crisis were not general. On the other hand, the perils which menaced the standard of value were sufficient to account for the alarm and for most of the consequences that ensued.[1]

Causes of the Panic. Two powerful causes contributed to the panic of 1893: (1) a deficiency of revenue, pointing to the necessity of using the gold reserve to meet the current expenses of the government; (2) a fear in the public mind lest there be a change in the standard of value. Yet, when the panic came, there was no observable tendency on the part of bank depositors to draw gold. What the frightened people wanted was the means of payment and especially the payment of wages. Government notes, bank notes, silver certificates, silver dollars, and subsidiary coins would meet this want as well as gold, and even better in some respects, because obtainable in the smallest denominations. All these things commanded the same premium as gold over certified bank checks in Wall Street. If there was any premium on gold over other currency, it was veiled under the rate of exchange. The government itself replenished its stock of gold to some extent by offering to deliver notes in New York in exchange for gold deposited in other

[1] "It is true that the years immediately preceding 1893, while they had been years of activity, had not shown the feverish speculation which commonly precedes the storm. Yet in some parts of the West, notably in Colorado, there had been wild gambling in land; and, what was probably more important, there had been in preceding years, from 1886 to 1890, a great deal of reckless investment in railways and in iron-making industries. Certainly some great railway corporations had been living from hand to mouth for several years before 1893, borrowing heavily on short time, hoping for a turn in their favor, helped for a while by the favorable conditions of 1891 and 1892, and finally brought to bankruptcy by the panic." — Taussig, *Silver Situation in the United States*, pp. 138–139.

cities, and vice versa. The cost of transferring the funds was a premium on gold.[1]

End of Silver-purchasing. On June 30, 1893, President Cleveland issued a call for an extra session of Congress expressly to repeal the Sherman Act. The time for meeting was August 7. A bill to repeal the silver-purchasing clause was promptly passed by the House, by a vote of 239 to 108. In the Senate there was a long delay, due to the lack of any rule for terminating debate. It seemed at one time as though the country was on the eve of some great change, in consequence of the revolutionary conduct of certain Senators in refusing to allow a vote to be taken. But filibustering came to an end at last, the repealing bill passed the Senate October 30, by 43 to 32, and was signed by the President.

The consequences of the panic did not come to an end, however. The Treasury deficit was not checked by the repeal of the Sherman Act. The gold reserve had declined from $99,000,000 in July, 1893, to $65,000,000 in January, 1894. This was due, not to the presentation of notes for redemption, but to an excess of ordinary disbursements over ordinary receipts. The deficit was now running at the rate of $5,000,000 per month. The cash balance in the Treasury other than gold was only $12,000,000. The situation was alarming.

Coining the Seigniorage. At this juncture some of President Cleveland's political friends, who had joined in repealing the Sherman Act, asked him to agree to a measure for coining, in advance, the seigniorage of the bullion purchased under that act. The whole amount of bullion purchased for $156,000,000 would produce 218,000,000 silver dollars. The difference between these two sums ($62,000,000) would be seigniorage whenever the

[1] These conclusions of Mr. White's should be compared with those of O. M. W. Sprague in his *History of Crises under the National Banking System*, pp. 167–179, where he claims that the silver policy played only a minor part in causing the panic. He writes (p. 179), "There was . . . not a little exaggeration of the influence of silver money in bringing on the crisis." On the other hand, W. Jett Lauck in his study *The Panic of 1893* presents a point of view quite similar to that of Mr. White. Sprague believes bank failures resulting from bad management and violation of the law were major causes. He also shows that the panic was worse in those sections favoring silver.

coinage should take place, but the Sherman Act had not contemplated the coinage of the bullion at any definite time. If the seigniorage were coined in advance, the new silver dollars would be in the Treasury, and if paid out would aggravate the existing evil, like a new issue of greenbacks or of any other fiat money. If not paid out, people would naturally ask why they had been coined. Moreover, coining the seigniorage would have been interpreted as a sign of vacillation and weakness on the part of the Executive and would have added to the prevailing panic. For these reasons Mr. Cleveland properly refused to give his assent to the proposed measure.

Indifference of Congress. When Congress met in regular session in December, 1893, Secretary Carlisle laid before it the exact condition of the Treasury, and recommended that his borrowing powers be enlarged and modernized by giving him authority to issue government obligations bearing 3 per cent interest and redeemable in one year. Such obligations would be akin to the exchequer bills issued in emergencies by the British government. But Congress was in a sullen mood. The Democrats were angry with President Cleveland for compelling them to repeal the Sherman Act. The Republicans could see no objection to a family quarrel among their opponents or to the pecuniary embarrassment of the administration. If the Secretary could extricate himself by means of existing laws, well and good; otherwise the government might go to protest. Neither branch of Congress would lift a finger to prevent it.

Bond Sales in 1894. It was now necessary to do something decisive. Under the Resumption Act of 1875 the Secretary had power to sell any one of three classes of bonds for the purpose of beginning and continuing the redemption of United States notes. Another law, not noticed at the time, gave him power to buy coin at his discretion and to pay for it with any bonds authorized by law. In January, 1894, the Secretary advertised, under the act of 1875, the sale of $50,000,000 of 5 per cent bonds, to run ten years and to be sold at the rate of $117.223 gold for each $100, thus making the rate of interest equal to 3 per cent. These were taken mostly by the New York City banks. In this sale the ele-

ment of coercion was not wholly wanting. The banks were not free to take the bonds or not, according to the attractiveness of the investment, but were obliged to consider what would happen to themselves, in common with the commercial world, if the loan should fail. When they looked at that side of the shield, they saw sufficient reasons for lending their money to the government at 3 per cent. The sale brought in $58,660,917, and the Treasury gold reserve was carried up to $107,446,802 in March, but it did not remain there long. Gold exports began again in April and continued heavy till September. The withdrawals reduced the Treasury reserve to $52,189,500 in August. The Secretary was compelled to advertise a new sale of $50,000,000 of bonds. This was effected in November, 1894, at 117.077, realizing $58,538,500, and bringing the Treasury reserve up to $105,424,569.

The second loan did not have a soothing effect. On the contrary, it convinced the public on both sides of the water that the United States was nearing bankruptcy. In the midst of the trouble, a rumor gained acceptance in Wall Street that the Treasury officials were keeping a list of the persons who drew gold, intending to visit displeasure on them later. This was naturally interpreted as a sign of panic inside the Treasury. It augmented the panic outside and led to larger withdrawals of gold than would otherwise have taken place. In the ten weeks following the second loan, $80,000,000 gold was drawn from the Treasury. Of this sum $36,852,000 was exported, and the remainder, $43,148,000, was presumably hoarded. This was a run on the Treasury, the like of which had not been known before.[1]

The danger had come so rapidly that steps for a new loan had not been taken in time to ward off the crisis. There was a gloomy conference at Washington between the President, the Secretary, and two or three bankers from New York. The President was told that another sale of bonds by advertisement would require at least two weeks' public notice and that, meantime, the Treasury would

[1] It is interesting to compare these incidents and the government's procedure with the steps taken by the government in March, 1933. This huge gold drain, which Mr. White describes as so serious, seems very small compared with international gold movements since 1916.

have suspended payments. The assistant treasurer in New York had, in fact, notified the Secretary that he could not hold out more than two days longer, as things were then going. President Cleveland did not believe that he had legal authority to sell bonds in any other way than in pursuance of public advertisement and competing bids, but at this juncture, Mr. W. E. Curtis, assistant secretary of the Treasury, drew attention to the following clause of the Revised Statutes:

SEC. 3700. The Secretary of the Treasury may purchase coin with any bonds or notes of the United States authorized by law, at such rates and upon such terms as he may deem most advantageous to the public interest.

Bond Syndicate of 1895. A sudden change came over Wall Street. Gold withdrawals from the Treasury, which in January had ranged from $1,000,000 to $7,000,000 per week, fell on February 2 to $67,000. News came from Washington that the President had made an arrangement with a syndicate of American and foreign bankers, under the statute above cited, to provide the Treasury with 3,500,000 ounces of gold coin, equal to $65,117,500; that at least one half of this gold should be brought from Europe, at the rate of 300,000 ounces per month, and that the syndicate should "exert all financial influence and make all legitimate efforts to protect the Treasury of the United States against the withdrawals of gold pending the complete performance of this contract." The bond deliveries were to be made concurrently with the payments, and the terms of the contract allowed six months for its entire fulfillment. This signified that, besides replenishing the Treasury, the syndicate had undertaken to stop the export of gold for six months, or at least to use all their financial powers to that end. This coin was to be purchased with 4 per cent thirty-year bonds at 104.49, at which rate the interest would be equal to $3\frac{3}{4}$ per cent. The syndicate, however, agreed to accept 3 per cent interest instead of $3\frac{3}{4}$ per cent, if Congress would make the bonds specifically payable in gold. President Cleveland sent the contract to the House, with a recommendation that this change be made, saying that it would save the government $16,174,770 in interest

payments during the time the bonds would run; but the House rejected the proposition, by 120 to 167.

By this transaction the Treasury's gold reserve was brought up to $107,000,000, and the syndicate did actually prevent withdrawals from the Treasury for remittance abroad for four or five months, although the rate of exchange would have warranted gold shipments. This they accomplished by using their own credit in London and selling sterling exchange at the current rate. But their ability to continue this operation depended upon the state of international trade in merchandise and securities, and eventually the demand for remittances on trade account became so heavy that they could not supply it by their own credit merely. The withdrawals for export began again on a large scale in August, and the reserve was down to $79,000,000 at the beginning of December.

The syndicate operation of 1895 was assailed with vehemence in Congress, on the ground that the terms were too onerous to the government. This objection was urged for the most part by men who, by refusing to make the bonds payable in gold, had themselves added $16,000,000 to the public burdens. It is true that the syndicate loan was onerous, as compared with those immediately preceding, but the reason was that it came at a time when the public credit was at a low ebb.[1]

Panic of 1895. While the financial world was in the sensitive and strained condition indicated above, President Cleveland (December 17, 1895) sent a message to Congress on the subject of

[1] In a monograph entitled *Appreciation and Interest* (Publications of the American Economic Association, August, 1896), Professor Irving Fisher presents a table showing the rates of interest realized on silver bonds (rupee paper) and on gold bonds of the Indian government in the London market from 1865 to 1895. Until 1875 the difference was slight, not greater perhaps than might be accounted for by the preference of investors for payment in London instead of Calcutta. In 1876 the decline of silver had become disturbing. Silver bonds sold at a rate which realized 4.1 per cent to the investor and gold bonds 3.7 per cent; in 1890, silver 4 per cent, gold 3 per cent; in 1895, silver 3.4 per cent, gold 2.8 per cent. The difference in the last-named year was 0.6 per cent, which was approximately the difference that the bond syndicate of 1895 offered to make between a gold bond and a "coin" bond of the United States.

the boundary line between Venezuela and British Guiana. The message was construed as a threat of war against Great Britain in certain contingencies. There was an immediate panic in Wall Street, accompanied by renewed exports of gold. The President again appealed to Congress (December 20) not to adjourn for the holidays without having "done something" to quiet the apprehensions of the public at home and abroad as to our financial soundness and honesty. Congress was willing to pay the expenses of a commission to determine the boundary of British Guiana, but would do nothing to ward off national bankruptcy. The holiday recess took place as usual. Meanwhile the withdrawals of gold from the Treasury were increasing, $20,000,000 being taken in December, of which $15,000,000 was exported. In January the reserve had fallen to $49,800,000.

On January 6, 1896, the Secretary of the Treasury advertised the sale of $100,000,000 of 4 per cent thirty-year bonds. The loan was largely oversubscribed and was taken at the average price of 111.166, at which rate the interest was equal to 3.39 per cent. After the payments had been made, the Treasury reserve stood at $128,000,000. Exports of gold continued till August, when the reserve fell to $100,957,561. This was within a small fraction of the sum turned over to Secretary Carlisle by his predecessor, Mr. Foster. Meanwhile the sum of $293,481,894 had been borrowed. The deficiency of revenue in the fiscal years 1894, 1895, and 1896 was $137,811,730, and the whole amount of money spent for silver bullion under the Sherman Act was $155,981,002. It is noteworthy that these two sums together equal the government's borrowings, within a small fraction. If the difficulties of 1893–1896 had been merely those of a deficiency of revenue, probably all parties would have co-operated to bring them to an end by means of increased taxes and a temporary loan. But since the standard of value, the principal political issue of the day, was involved in the solution of the fiscal problem, no such co-operation was possible.

Coinage of the Silver Bullion in the Treasury. The Sherman Act provided that two million ounces of the bullion purchased should be coined into silver dollars each month until July 1, 1891,

and that thereafter only so much should be coined as might be necessary to provide for the redemption of the Treasury notes issued to buy the bullion. It provided also that the amount of Treasury notes outstanding should be neither greater nor less than the cost of the silver bullion and the silver dollars coined therefrom then held in the Treasury. Accordingly, when any Treasury notes were redeemed with silver dollars, it would be necessary to cancel them, in order to make the notes still outstanding equal to the silver still in the Treasury. If redeemed with gold, the notes would be reissued. As there was no provision for restoring canceled notes, it followed that the total amount of them in existence must be diminishing in exactly the ratio that redemption of them with silver took place. This process, as explained in the preceding chapter, was accelerated by the acts of 1898 and 1900.

Under the acts of 1878 and 1890 the purchases of silver were as follows:

Silver bullion purchased under the act of February 28, 1878, fine ounces		291,272,018
Total coinage of silver dollars under said act		$378,166,793
Total cost of silver bullion used in such coinage		$308,279,261
Silver bullion purchased under the act of July 14, 1890, fine ounces		168,674,682
Cost of same		$155,981,002
Silver dollars coined and to be coined therefrom	$218,000,000	
Less subsidiary coinage	20,000,000	
		$198,000,000
Total coinage of silver dollars under both acts		$576,166,793

Act of 1900. The first section of the act of March 14, 1900, says that all forms of money issued or coined by the United States shall be maintained at a parity of value with the gold standard, and that "it shall be the duty of the Secretary of the Treasury to maintain such parity." It did not provide any means, however, by which to maintain parity. This omission is the more remarkable since the bill as originally reported and passed by the House contained a clause expressly for that purpose.

CHAPTER XII

FOREIGN-EXCHANGE RATES

A consideration of foreign-exchange rates is fundamental to any discussion of international trade. The amount which we receive for our exports and the cost of our imports are dependent upon existing exchange rates. When the United States left the gold standard in April, 1933, foreign-exchange rates began to fluctuate between wide limits. The reasons for this will be discussed presently. Between November, 1932, and November, 1933, exchange rates between the United States and England rose from an all-time low of $\$3.14\frac{1}{2}$ to a high of $\$5.52\frac{1}{2}$. England had abandoned the gold standard in September, 1931. The importance of the exchange rate to the American importer can be illustrated as follows: Suppose you have purchased a book from a publishing house in London. Now the unit of money in England is not the dollar but the pound sterling, and the English fractional money consists principally of the shilling and the penny.[1] Let us suppose that the price of the book as quoted by the London publishing house is £1. If, therefore, you had purchased the book in November, 1932, it would have cost you in American money approximately $3.15, while, if you had purchased it one year later, the same book, selling for the same price in terms of English money, would have cost you in the neighborhood of $5.50. This is a difference of about 70 per cent.

Many other illustrations could be offered to show the pecuniary importance of the exchange rate. The one just given has to do with merchandise. Let us take one of a different nature. Many Americans spend their vacations abroad. The summer of 1932 was an excellent time to travel in England, because sterling ex-

[1] Twelve pence (d.) equal 1 shilling (s.); 20 shillings equal 1 pound sterling (£).

change hovered around $3.50, while during the summer of 1934 exchange was around $5. This meant that one could have "seen England" for almost one-third less in the summer of 1932 than in the summer of 1934.[1]

After the United States abandoned the gold standard in April, 1933, exchange rates in the United States on France went up noticeably. Various press accounts revealed at that time that it was difficult to secure reservations on west-bound passenger steamships from France to New York because the added cost of living or vacationing in France due to the higher exchange rates was causing many Americans to return home.

England's war-debt obligation to the United States became much more burdensome to her when her money would no longer exchange for as many dollars as it did formerly. The token payment which she made in December, 1932, required that she pay some 30 per cent more in terms of her own money than she would have had to pay a year and a half previously.

Par of Exchange. It is hoped that sufficient illustrative material has been presented to show the vital importance of exchange rates when any form of international financial relations is considered. Let us now turn to an analysis of the reason for an existing exchange rate at any given time. First to be considered in this connection is the par of exchange. For a number of years before the devaluation of the dollar in 1934 the par of exchange between the United States and England was $4.8665. This means that there was 4.8665 times as much gold in the English pound sterling as there was in the American gold dollar. The amount of pure gold in the pound sterling is 113.0015 grains, whereas the American dollar formerly contained 23.22 grains of pure gold. By dividing the gold content of the pound sterling by that of the dollar, the above-stated par of $4.8665 can be derived. In general, then, it may be stated that par of exchange expresses the relative amounts of metal (gold in this case) in the respective monetary units.

[1] This assumes that internal English prices, such as railroad fares, hotel rates, etc., were the same for both periods. As a matter of fact internal prices, in general, were at about the same level in 1934 as in 1932.

But what happens to the par of exchange between two gold-standard countries if one of them abandons gold? This is exactly the situation which arose between the United States and England in September, 1931. England placed an embargo on gold, and so for all purposes of foreign-exchange analysis she was no longer on the gold standard. Most publications containing foreign-exchange quotations continued to carry the pound-dollar par at $4.8665, even though it had lost much of its significance, except as a measure of the extent to which the paper pound of England had depreciated in comparison with the American gold dollar. Exchange rates in New York and London could not rise much above the old par, but they could fall greatly below it. Consideration will be given later to exchange rates between countries on inconvertible paper standards. Let us continue our present analysis on the basis of gold-standard countries.

So far our analysis has been limited to exchange rates between the United States and England. Although the same principles apply in the determination of par of exchange between the United States and any other country as were used in the pound-sterling example, let us consider briefly the exchange rates between the United States and a number of other leading foreign nations. The *Monthly Review* of the Federal Reserve Bank of New York for January, 1935, gives the quotations shown on the following page.

Most of the countries listed were not on the gold standard at the time of the exchange quotations, which accounts for the wide discrepancy existing between the par and actual rates for some of the countries. The United States, having established a new fixed price for gold ($35 an ounce) without convertibility, was said to be on a modified gold-bullion standard. In the case of England it will be noticed that par is given as $8.2397 rather than the $4.8665 which we have previously referred to and explained. This is accounted for by the fact that, as a result of the devaluation of the dollar early in 1934, the new gold content of the dollar was 13.71 grains as against the former gold content of 23.22 grains. The former pound-sterling gold content of 113.0015 grains divided by this new amount gave the new par, if one can speak of any par at all, since England was not on the gold standard. To review the

CLOSING CABLE RATES AT NEW YORK, DECEMBER 29, 1934

EXCHANGE ON	PAR OF EXCHANGE	RATE OF EXCHANGE
Belgium (belga)	$.2354	.2348
Denmark (krone)	.4537	.2206
England (pound)	8.2397	4.9400
France (franc)	.0663	.0661
Germany (mark)	.4033	.4025
Holland (florin)	.6806	.6773
Italy (lira)	.0891	.0857
Norway (krone)	.4537	.2483
Spain (peseta)	.3267	.1371
Sweden (krona)	.4537	.2548
Switzerland (franc)	.3267	.3243
Argentina (peso)	.7187	.3293
Canada (dollar)	1.6931	1.0056
Brazil (milreis)	.2026	.0819
Uruguay (peso)	1.7511	.8000
India (rupee)	.6180	.3722
Japan (yen)	.8440	.2878

meaning of par of exchange, then, the quoted par of approximately six and two-thirds cents between the United States and France means that there was the same amount of gold in the French franc as in six and two-thirds cents of American money.

So much for par of exchange between gold-standard countries. What about countries on silver, bimetallic, and paper standards? In the case of two countries on silver standards exactly the same principle applies in the determination of par of exchange between them as applied to countries using gold as their monetary base, namely, the relative amounts of silver in their respective monetary units. Countries which do not have their currencies tied up with any commodity are usually said to be on a paper or a managed paper standard. Such conditions make it impossible to determine any par of exchange; in other words, so long as there is no provision for converting a country's currency into units of some commodity, there can be no par of exchange. In the case of countries using both gold and silver as a monetary base, par of exchange

exists and can be easily calculated. If the two countries in question have the same mint ratios between their metals, then the problem of deriving par of exchange is the same as that for gold-standard countries; but if their mint ratios are different, then one would expect only silver to flow in one direction and only gold in the other, which would complicate somewhat the determination of par of exchange. There still remains one further set of conditions which must be considered, and that is various combinations of the above-mentioned groups, such as a combination of gold-standard and silver-standard countries, of gold-standard and paper-standard countries, of bimetallic-standard and silver-standard countries, and any other possible combinations. Only for countries which use any one metal in common can there be said to exist a par of exchange.

International Gold Movements: Gold Points. There are a number of reasons why persons wish to make payments between countries. Among the more important reasons are the following:

1. To pay for goods purchased in foreign countries.
2. To pay for foreign securities. (This is the principal way by which money is invested in foreign countries.)
3. To purchase the services necessary to traveling in foreign countries.
4. To send money to relatives and friends residing in foreign countries.
5. To support foreign charities.
6. To make governmental payments, such as war debts and reparations.
7. To invest one's funds for short periods in foreign financial centers.

This last reason has been particularly important during the last few years. There have been numerous scares in most countries over inflation, devaluation, etc. As a result investors have sought to place their money in more stable markets. This practice is known as the flight of funds. During a six weeks' period in the fall of 1931 so much capital "flew" from the United States that we exported approximately $700,000,000 of gold.

This gives a general picture of the reasons for making payments between countries. A more detailed discussion of this subject will be presented in Chapter XIV.

Thus far only technical aspects of the determination of par of exchange have been considered. But after we know all about its derivation, what purpose does it serve? After all, the important thing in this connection is what causes the flow of metals between countries. The previous discussion concerning par of exchange is fundamental to the understanding of international gold movements.

Gold points are those points on either side of the par of exchange above and below which exchange will not fluctuate so long as the two countries in question remain on an unrestricted gold standard. In other words, these points set the limits of exchange fluctuations; and naturally there are two of them, an upper limit and a lower limit, but more significantly termed the gold-export point and the gold-import point. In the case of the United States and England these points, although varying slightly from time to time, are approximately two cents on either side of par.[1] This two-cents difference is determined by the costs involved in transporting the amount of gold which exists in the unit or units used in the statement of par — in our example, the amount of gold in $4.8665 of American money or the amount in the English pound sterling. To be even more specific, we have assumed two cents to represent the cost of transporting 113.0015 grains of gold between the United States and England. There are principally three groups of costs involved in the procedure: shipping costs, including packing; insurance; and the loss of interest on the amount of money which is necessary to finance the shipment for the period of time involved. The two points are, then, $4.86 being taken as a round number for par, $4.84 and $4.88. But which is the export point and which the import point, and why? The gold-export point is $4.88, because when exchange goes beyond $4.88, it would be cheaper for the American who owes money in England to convert his dollars into gold, ship the gold to

[1] Here again, as in the case of determining the par of exchange between these two nations, we are discussing a situation which existed for a good many years before the world-wide depression of 1929–1935, and a situation which may be true again when more nearly normal conditions return.

England, and establish pound-sterling credits, which he could use to settle his debt. To illustrate: Suppose you are an importer, and that you go to your bank to purchase a draft in pounds to cover your indebtedness to a London exporting house, and the exchange teller informs you that it will be necessary for you to pay at the rate of $5 for each pound. You immediately ask why, and are told that so many persons are wishing to pay English debts (heavy demand) that the price of sterling exchange has gone up to $5. Is there anything that you can do about it (the assumption being that all other agencies dealing in foreign exchange are quoting the same price)? Yes, there is something that you can do about it. You can take $4.86 to the United States Treasury and obtain 113 grains of gold,[1] which you can send to England at an assumed cost of two cents. The 113 grains of gold will give you a pound credit with the Bank of England, which you can use to pay your obligation at the exporting house. The net cost to you of discharging your debt in this manner will be $4.88. Knowing this you will tell the bank that you are not interested in purchasing sterling drafts at $5. Thus $4.88 has been definitely established as the gold-export point for the United States under the assumed conditions. Naturally if $4.88 is the gold-export point for the United States, then it must be the gold-import point for England.

All this may seem extremely superficial, because it costs five cents to send a letter to England, and our example assumes two cents for shipping 113 grains of gold (about one fourth of an ounce). Obviously this small amount is never shipped, but there are many exchange dealers and bankers whose business it is to ship gold when exchange rates make it profitable. In other words, your banker would never ask you $5 for sterling exchange, because there would always be someone willing to supply exchange at $4.88 or less. The two-cent charge assumed here varies every time there is a change in interest rates, shipping costs, and/or insurance rates. Before our entry into the World War insurance costs on gold shipments became very high. Later we placed an embargo on gold.

[1] This was clearly an alternative before March, 1933. Since the middle of 1934 gold may again be freely exported from the United States.

If $4.88 is the gold-export point, then $4.84 must be the gold-import point, which can easily be seen to be true from the following example: Suppose that your uncle, an Englishman, dies and leaves you £1000. Unless you are contemplating visiting England, dollars are what you want, not pounds; so you go to your bank and ask how many dollars you can obtain for your £1000 credit. If you are not offered as much as $4840, you will reject the bid, transfer your sterling credits into gold (113,000 grains), ship the gold to New York, and take it to the Treasury Office, where you can obtain $4860 for it. Your only cost in the transaction has been that of shipping, which amounts to $20; your net proceeds therefore are $4840. This again is too small an amount to make a shipment of gold profitable, but exchange dealers handling larger amounts are always willing to bid for foreign credits up to the point where shipments are profitable, in this case up to $4.84. Banks possessing accounts in London would quickly transfer them into gold and have the gold shipped to the United States.

The discussion of gold points thus far has assumed the existence of an unqualified gold standard in both countries. Gold points, of course, disappear when neither country is on the gold standard; but if one nation continues to convert its currency freely into gold while the other does not, then one of the gold points disappears but the other remains. To illustrate: Between September, 1931, and April, 1933, the United States was operating under a gold standard while England was not. This meant that anyone possessing dollar credits in New York could continue to convert them into gold and ship the gold from the country, but a similar opportunity did not exist for the holder of English credits. The gold-export point of the United States, $4.88, would continue in force, unless the price of gold changed in London, in which case the gold-export point would still exist although at a different level; but the lowest theoretical limit to which exchange could go now becomes zero rather than $4.84. As was pointed out previously, exchange did go to $3.15 during this period. If there should be a discrepancy in the market prices of gold in any two countries, even though they were not on a gold standard, one would expect the gold to move toward the higher-priced market, as would any other commodity.

About the middle of the 1920's a slight variation of this procedure was introduced, which deserves comment: international balances were settled without actual gold shipments. This method of settling international balances in gold without actually shipping the gold is known as "earmarking."[1] The plan operates as follows: Exchange rates reach the point where, say, gold will flow from the United States to France, but the French government decides that there is no point in allowing the gold to flow into France, since its home supply of the metal is more than sufficient for present needs, and/or it may be expected that the flow will be reversed in the near future, and hence the gold would have to be sent back to New York. Therefore the French government arranges to accept the gold in New York and stores it in the Federal Reserve Bank there. This gold is then known as earmarked gold for the account of the French government; and when exchange reaches the gold-export point for France, this earmarked gold can be released. In this manner the expense of shipping the gold in both directions is avoided. But if this is the case, then what is the effect upon the gold points, which are, in general, determined by this expense? If this practice were to become sufficiently extensive, it would, no doubt, affect the gold points by moving them nearer the par of exchange, but so far it has not affected the exchange limits materially. Even under the normal operation of the gold standard, it is not necessary for exchange rates to touch an exact point before gold flows take place. There have been cases of banks which were willing to lose a small amount on the transaction because of the advertising value of shipping gold.

Earmarking resembles the practices followed under the gold-exchange standard, and there is always the danger, which many nations fear, incident to leaving gold in the physical possession of another. There is likewise the psychological effect of having the gold "on tap" for immediate use in case it is needed. At the close of 1933 the monetary gold holdings of the United States approxi-

[1] This term, no doubt, goes back to the practice in the Western states of cutting varied designs in the ears of livestock, notably hogs, so that in case they mingled with those of a neighbor the owner would have no difficulty in picking out his own stock. Branding serves the same purpose.

mated $4,000,000,000, which was almost a fourfold increase from the $1,184,369,000 that we held in 1914. This phenomenal increase in the American gold supply has been matched only by the increase which took place in France between 1926 and 1932, when her gold supply jumped from $711,000,000 to $3,254,000,000. The net yearly balance of gold movements into and out of the United States since 1914 is given below (in millions of dollars).[1]

	Net Import	Net Export		Net Import	Net Export
1914		112	1924	258	
1915	421		1925		134
1916	530		1926	98	
1917	181		1927	6	
1918	21		1928		392
1919		292	1929	175	
1920	95		1930	280	
1921	667		1931	145	
1922	238		1932		446
1923	294		1933		174

It is interesting to note that in only six years of the twenty did the United States experience a loss of gold. The greatest inflows came in 1915–1917, 1921–1924, and 1929–1931.

What causes the exchange rate to reach, say, the export point, and once it gets there why does it not remain there indefinitely? The exact position of exchange at any time, between its upper and lower limits, is determined by the amount of funds which are being transferred in both directions at that time. If, for example, there are more persons who wish to convert dollars into sterling credits than there are persons who wish to convert pounds into dollar credits, then the exchange rate in New York on London will go up. If this condition continues for a sufficiently long period, then the gold-export point will be reached. A shorter way of saying the same thing is that when the demand for sterling drafts exceeds the supply of such drafts, then sterling exchange will go up. When the gold-export point has been reached, what is to prevent a con-

[1] From the annual reports of the Federal Reserve Board.

tinual outflow of gold other than the fact that the demand for sterling drafts declines and the supply increases to such a point that the supply exceeds the demand? An answer to this question leads us to a discussion of the correctives of foreign exchange.

Correctives of Foreign Exchange. Correctives of foreign exchange may be defined as those forces which automatically tend to force the exchange rate down when it has reached the gold-export point and to force it up when it has reached the gold-import point. It is not necessary, of course, for the exchange rate to reach exactly these points before some of the correctives begin to operate. The first corrective is the effect which the higher exchange rate has on merchandise imports. When sterling exchange has risen to the gold-export point, English merchandise then becomes higher in terms of American money, importers are consequently discouraged from importing so much, and therefore the demand for sterling drafts falls off, which will tend to force exchange rates down. In addition to the effect of higher exchange rates on merchandise imports there is the effect on the purchase of foreign services, such as those connected with traveling abroad, and on the purchase of foreign securities, which all become higher in terms of American money when the exchange rate is at or near the gold-export point.

The second corrective which will be discussed is one the exposition of which has been handed down to us through a long line of orthodox economic teaching. It is a corrective which operates only after the exchange rate has been at one of the gold points for a period of time. When a country is operating on a gold standard, it is expected that there is some relationship between the amount of gold and the amount of available credit and currency in the country. Some have thought this relationship to be a very close one, while others, though recognizing the existence of the relationship, have not found it to be a close one. The next step in the reasoning assumes a positive correlation between the country's supply of credit and currency and its price level. If the validity of these hypotheses is granted, the working of this corrective becomes a simple procedure, thus: The exchange rate between the United States and England has been at the former's gold-export point for a

period long enough for a large amount of gold to have been exported from the United States to England. As a result of this loss of gold by the United States it is necessary to contract currency and credit because of the smaller monetary base. The contraction of currency and credit has caused American prices to fall because of the resulting reduced volume of purchasing power. Conversely the inflow of gold into England has caused an expansion of purchasing power and hence higher prices. Now, with higher prices in England and lower prices in the United States, England becomes an excellent place in which to sell goods but a poor place in which to buy, and the United States becomes a good place in which to buy but a poor place in which to sell. This encourages American exports and discourages American imports, with the result that there is a greater supply of sterling credit and a smaller demand for it. This will, in turn, make for lower exchange rates until it is no longer profitable to ship gold out of the United States. On the side of England, its exports are adversely affected and its imports increased because of the higher prices, and so we have still another factor tending to increase the supply of sterling credit and decrease the demand for it. Taken together these two factors, or perhaps the same factor working inversely in the two countries, will cause exchange rates to decline below the gold-export point.

The working of this corrective is similar when exchange has reached the gold-import point: the inflow of gold causes higher prices, thus discouraging exports and encouraging imports, and more imports and fewer exports increase the demand for and cut the supply of drafts on foreign countries. As a result of this situation, which is intensified because of the lower prices in the nations from which the gold comes, exchange rates will move upward and the gold inflow will be stopped.

As was pointed out earlier, this analysis is based on two assumptions: first that there is a direct relationship between the supply of gold and the volume of money and credit, and second that a similar relationship exists between the volume of money and credit and the general level of prices. The validity of these assumptions is discussed elsewhere, but it should be stated here

that the effectiveness of this corrective has been widely discredited in recent years. In fact, there are those who hold that the failure of this corrective to operate was in a large measure responsible for the breakdown in world trade which began to take place at the beginning of the world-wide depression. The assumption which has been attacked most is that of the relationship between gold and money and credit. The importations of gold into the United States which began in 1920 and continued in widely varying amounts for some seven or eight years have frequently been referred to as resulting in a "gold-sterilization" policy in the United States, which means primarily that this new gold was not used. Burgess refers to this situation as the "gold paradox."[1] It is held that for the United States the importations of gold which took place during the seven or eight years following 1920 did not produce the expected effect upon prices.

The first corrective of foreign exchange which was discussed continues to enjoy wide acceptance, namely, the effect which a high or low exchange rate will have on the purchase of goods, securities, and services from a foreign country: a high exchange rate automatically creates a tendency toward a lower rate, and a low rate sets factors in motion which make for a higher rate.

Purchasing-Power-Parity Theory. Thus far our discussion has been limited to the determination of exchange rates between gold-standard countries. We have stated that in the case of such countries exchange rates fluctuate only between the very narrow limits set by the gold points, and at any given time the position of exchange between these points is determined by the supply of and the demand for foreign funds. What would determine exchange rates between two countries on inconvertible-paper standards? Obviously there is neither a par of exchange nor gold points, unless zero and infinity were considered as theoretical limits. The position of exchange at any given time would therefore be determined by the supply of and the demand for foreign drafts. But is it not possible to say something more definite about the fixation of exchange rates between paper-standard countries,

[1] W. Randolph Burgess, *The Reserve Banks and the Money Market*, Chap. XIV. Harper & Brothers.

at least with regard to tendencies over long periods? The purchasing-power-parity theory has been developed to satisfy this need.[1] Simply stated this theory says that exchange rates between two countries tend to gravitate toward the point which expresses the relative purchasing power of the respective monetary units. To illustrate: If the exchange rate between the United States and China is 30 cents, this means that 30 cents has the same command over goods in the United States as it has in China. If such were not the case, — if 30 cents converted into Chinese money would purchase more in China than in the United States, — then we would do all our purchasing in China. On first thought this would seem to be a very reasonable theory of normal exchange rates, but most students who have gone into the theory in some detail have concluded that its usefulness is very doubtful.

The following objections may be advanced against the purchasing-power-parity theory of exchange rates: In the field of services such items as transportation and certain other services are not dealt in internationally, and therefore, even though such items are considerably cheaper in one country than in another, the alternative of purchasing them in the cheaper market does not exist. A good illustration of the failure of purchasing parity to work itself out in the field of services is to be found in the relative costs of personal services in various countries. It is generally agreed that these costs are higher in the United States than in any other country. Even this situation, however, could be remedied if it were possible to make the prices of these services more uniform among the various countries, but the rigid immigration restrictions of some countries render this impossible. Highly perishable commodities, such as most fruits and vegetables, fresh meats, and cut flowers, are a very important element in the make-up of general prices, and yet, regardless of how expensive these items may be in the United States, we do not as a rule consider purchasing them elsewhere. Perhaps the purchasing-power-parity theorists mean their theory to apply only to those commodities which do enter

[1] Although not the originator of the theory, the Swedish economist Cassel, in his book *Money and the Foreign Exchange after 1914* (The Macmillan Company), discusses it in some detail.

into international trade. If that is true, then the criticism just made is not pertinent, but it does point to a serious limitation to the usefulness of the theory. Secondly, in addition to the goods and services which cannot enter into international trade, there are many goods which do not enter because of artificial restrictions, such as tariffs and/or embargoes. When this group is added to the group mentioned under the first criticism, a very large portion of all the items which go to make up the total of all prices has been excluded, so that, if one assumes the validity of the purchasing-power-parity theory for only the goods which enter into international trade, the theory is of very little use. Does the purchasing-power-parity theory state merely that there is a tendency for goods to be purchased, when possible, in those countries which will sell them the cheapest? Such a restricted interpretation of this theory has usually not been made, but if it is made, then, of course, the validity of the theory can scarcely be questioned. General prices within a given country have usually been used, rather than the prices of only those commodities which enter into international trade, to show how this theory operates.

An article in the *Federal Reserve Bulletin* for September, 1923, covering the purchasing-power-parity theory of exchange rates concludes:

> Among the limitations of this theory, it is obvious first of all that it can be applied, strictly speaking, only to prices of goods which enter freely into international trade. When so applied, however, the theory becomes a mere truism, having comparatively little interest or practical value. As a matter of fact, commodities produced and consumed at home as well as those having a world market, are usually included in the computation of price index numbers and in comparisons of price levels in different countries. When all commodities are thus considered, there is no reason to expect a complete adjustment between prices and exchange, unless it is assumed that prices of domestic commodities have followed the same course as prices of other commodities. This assumption may or may not be well founded, according to the circumstances of the case.[1]

[1] "International Price Comparisons under Depreciated Exchange," *Federal Reserve Bulletin* (September, 1923), Vol. IX, p. 1006.

Different Classes of Exchange Rates. Thus far we have spoken as though there were only one exchange rate. This is no more accurate than to speak of *an* interest rate. There are a number of different rates of exchange. These are illustrated by the closing quotations for sterling as of January 5, 1935:

Bankers' Bills	
Sight or demand	$4.93\frac{1}{2}$
Cables telegraphic (transfers)	$4.93\frac{3}{4}$
Commercial Bills	
Sight	$4.92\frac{1}{8}$
Sixty-day	$4.91\frac{1}{2}$
Ninety-day	$4.91\frac{1}{8}$
D/P sixty-day	$4.91\frac{1}{2}$
Seven-day grain	$4.92\frac{1}{8}$

It will be noticed that there are two general classes of rates. The quotations for bankers' bills are the prices at which the foreign-exchange banker is willing to dispose of his English funds, while the commercial-bill rates are the prices at which it is possible to obtain a new supply of funds in England. The commercial-bill rates likewise determine the price which the banker will pay the American exporter for drafts drawn upon foreign importers or the importers' banks.

The difference between the various rates is usually referred to as the "spread" of foreign-exchange rates. But why are cable rates higher than any other rates? An example will best explain the spread which exists between the two kinds of bankers' bills. If you owe £1000 to a London bank, which is due in thirty days, you can wait until approximately ten days before it is due and purchase a sight draft from an exchange banker. (What actually happens is that you purchase in dollars a check for £1000 drawn by your bank upon its deposit in its London correspondent.) This sight draft, or check, can then be mailed to the London bank, which will receive it in time to obtain its money by the time your bill is due. Another method which you can use to discharge this debt is to wait until the day the bill is due and then purchase a cable. You do this by having your bank cable its London correspondent to release from the American bank's deposit £1000 and pay it to

the London bank in favor of your account. If, then, in the case of the sight draft, the bank sells to you funds which are not to be delivered for ten days, while in the case of the cable it must make immediate delivery, it is easy to see why you are charged more for the cable. There is likewise the difference caused by the added expense of the cable as against the mailing costs of the sight draft. This difference, although important for small amounts, becomes almost negligible for larger amounts.

The quotations for commercial bills represent the price at which it is possible to obtain a new supply of funds in London after a stated period of time. If you purchase or draw a commercial sight draft, you will obtain the funds in about ten days, while if you purchase or draw a sixty-day draft, you will not obtain the funds for sixty days, and so on for maturities of other lengths. It is easy to understand, then, why the shorter the maturity, the higher the price for commercial bills.

Arbitrage. Arbitraging in foreign exchange may be defined as "taking advantage of the out-of-lineness of foreign-exchange rates." For example, there may be times when it is cheaper to obtain sterling credits by first purchasing Paris exchange and then purchasing sterling with the Paris credit than by buying the sterling exchange directly in New York. This represents three-point arbitrage, and there can be four, five, and even more points used in arbitraging transactions. Two-point arbitrage is by all odds the most simple, and an example of it will be given, but it should be kept in mind that exactly the same principles would apply for more than two-point transactions.

If the cable exchange rate in New York on London is $4.86, that should likewise be the rate in London on New York, and if this is not the case, an opportunity exists for the arbitrager. Suppose, to make the illustration extreme, that the rate in New York on London is $4.86, while in London the dollar rate is $4.87. An arbitrager could purchase with $10,000 in New York approximately £2057½, and then with that credit in London he could turn around and purchase with it approximately $10,020.[1]

[1] All references on foreign exchange will be found at the end of Chapter XIV.

CHAPTER XIII

FINANCING INTERNATIONAL TRADE

Fundamentally there is no difference between the financing of international trade and the financing of domestic trade, but there are several important conditions peculiar to foreign trade which vary the procedure somewhat. First of all there is the matter of distance. Because of this distance more time elapses between the shipment and the delivery of the goods to the buyer. This is not always the case, of course, as the distance between Buffalo, New York, and Montreal, Canada, is much less than the distance between Buffalo and Seattle. Also, there is less likelihood that the seller is personally acquainted with the buyer, and therefore he probably knows less about his credit standing.

In the United States we have used mostly the open-book account in the financing of domestic trade. The promissory note and draft are also used, and in some few industries the draft is used almost to the exclusion of the other forms. European countries have used the acceptance very widely. This is especially true in England. Until the establishment of the Federal Reserve System in this country in 1913 the bank acceptance as an instrument for financing domestic trade was almost unknown. This was due primarily to the fact that national banks were not allowed to accept drafts for their customers. Before the Civil War the bill of exchange had been used a great deal in financing domestic trade. Various means of encouraging the use of acceptances in domestic trade have been provided, such as willingness on the part of Federal reserve banks to purchase any amount of them at any time; but their use in the United States still lags far behind that of some other nations, notably England.

In the case of international trade, however, the acceptance has almost universal usage. Acceptances are of two kinds: trade

acceptances and bank acceptances, the difference being that a bank acceptance is always drawn upon a bank, while a trade acceptance is drawn upon the purchaser of the goods, usually a corporation. The bank acceptance is used much more extensively in international trade than the trade acceptance. It is very easy to see why this is true. If the seller does not know the buyer, and in most cases he probably does not, he does not wish to draw a draft on the buyer for fear that it will turn out to be worthless. He requires the purchaser, therefore, to substitute the credit of his bank by making an arrangement whereby he (the seller) may draw upon the buyer's bank rather than upon the buyer.

Classification of Bills of Exchange. Before going into the somewhat detailed procedure of the use of the bank acceptance in financing international trade, it might be well to discuss briefly the various types of instruments which are used. All these instruments are usually referred to as bills of exchange, but sometimes the word "draft" is used to mean the same thing. Every acceptance is a bill of exchange, and it originates as a draft drawn upon the buyer or his bank. Some persons prefer to designate the bill of exchange used in the financing of international trade as a draft until it has been accepted, and thereafter as an acceptance. The following classification may be made for bills of exchange used in international trade:

Bankers' Bills.
1. Cables.
2. Sight or demand.
3. Time.
   a. Finance bills.
   b. Bankers' long bills.

Commercial Bills.
1. Sight or demand.
   a. Clean.
   b. Documentary.
2. Time.
   a. Clean.
   b. Documentary.
      (1) Documents for payment.
      (2) Documents for acceptance.

The two main classifications of bills of exchange which are used in connection with foreign transactions are bankers' bills and commercial bills. Commercial bills, as the name suggests, are bills which are drawn for the purpose of financing the sale of goods. Bankers' bills, on the other hand, are bills which are drawn by a bank or some other financial institution upon some foreign bank or financial institution. There are therefore usually no documents to be attached to bankers' bills. In the case of commercial bills documents may or may not be attached. If they are not attached, then the bill is known as a clean bill. If such a document as the invoice or the bill of lading is attached, then the bill is known as documentary.

Documentary time bills are in turn divided into two classes: documents for acceptance (written D/A) and documents for payment (written D/P). In the case of D/A bills the acceptor may secure all documents, thereby giving possession of the goods to the buyer as soon as the bill has been accepted. D/P bills, on the other hand, require payment before the documents are released. If a D/P bill is drawn for, say, sixty days after sight, the acceptor may wait the stated sixty days before accepting and paying for the goods. At any time during the sixty days, however, he may accept the draft at a discount for the remaining period which it has to run. Thus, if he accepts the draft after forty days, he pays only the face amount of the draft less a twenty-day discount.

It may be somewhat misleading to classify a cable as a bill of exchange. If you wish to pay a foreign obligation immediately, you may arrange to have your bank cable its foreign office or correspondent to release from its (the American bank's) deposit the required amount of funds to your creditor. This procedure in international trade corresponds to wiring funds within the United States. No bills of exchange are actually brought into existence as the result of a cable; but since it is a method of settling international obligations, it is named in the list above. By means of a cable a foreign obligation may be paid immediately.

Sight or demand drafts require payment upon "sight." This usually means that payment is required in as many days after the draft is drawn as it takes it to reach its destination. In other

words, payment is demanded as soon as the draft is presented to the buyer or the buyer's bank. Lastly there are the drafts which specifically designate a future date as the day of payment. This date is usually contingent upon the time when the draft is drawn or when it is first seen by the acceptor. The common terminology is "so many days after date" or "so many days after sight." The most common time draft allows thirty days to ninety days before payment is required. Almost no drafts are drawn for more than ninety days, except in South American trade.

The Use of the Bank Acceptance in Foreign-Trade Financing. There is no single procedure which is followed in all foreign-trade financing. Space permits only an explanation of what may be referred to as the standard procedure. This involves the use of the bank acceptance for the financing of an export transaction. If the seller is to draw upon the buyer's bank, then he must have some written evidence from the buyer's bank stating that it will accept a draft drawn under specified terms. The instrument which the drawer of the draft receives is known as a commercial letter of credit.

Letters of Credit. Let us assume that an American exporter is negotiating for the sale of a $10,000 bill of raw cotton to an English importer. The exporter has informed the importer that he wishes to draw the draft upon the importer's bank rather than upon the importer. This causes the transaction to be financed by a bank acceptance. The importer is therefore forced to go to his bank and obtain in writing a statement indicating the bank's willingness to accept a draft drawn for the purpose of selling $10,000 worth of cotton to the importer. This statement is known as a commercial letter of credit, and is sent to the exporter along with the order for the cotton. The exporter thereby has some assurance that if he ships the goods and draws a draft on the importer's bank, the draft will be accepted and paid at maturity. There are likewise personal letters of credit used primarily by persons traveling in foreign countries; these two types of letters of credit should not be confused.

How is the importer's bank remunerated for the risk which it takes? That is, if the importer does not pay for the cotton before

the maturity date of the acceptance, the bank must, since it is the acceptor. The exporter must live up to all specifications in the letter of credit, such as those regarding packing, inspection, etc., or the bank may legally refuse to accept. If all conditions are complied with, the bank is absolutely bound to accept. In addition to a small commission which the bank usually charges for extending this service to the importer, it frequently requires a trust receipt and, in cases of doubt, a pledge of collateral.

The Trust Receipt. A trust receipt is a legal instrument signed by the importer and given to his bank, which provides that the importer becomes the agent of his bank in the sale of the cotton. The bank retains ownership of the goods, and the importer must credit all sums received from the sale of the goods to the bank, which sums will be used to pay for the draft at maturity.

Upon receipt of the letter of credit from the importer, the exporter ships the cotton and at the same time draws a draft upon the importer's bank for $10,000 — say, sixty days after sight. The draft, in general, states that sixty days after sight the importer's bank agrees to pay to the order of the exporter $10,000. When the draft is presented to the importer's bank, that bank writes "Accepted" across the face of it. This draft and its attachments are drawn in duplicate and sent on different boats to minimize the risk of loss. The attachments usually consist of the following documents: (1) invoice, (2) bill of lading, (3) insurance certificate, (4) hypothecation certificate. The invoice is the description which the seller gives of his goods; the bill of lading, the description of the goods carried by the transportation company, conveys title and is also a receipt; the insurance certificate protects against loss in case the boat goes down or the shipment is damaged; the hypothecation certificate is a legal instrument which gives the holder of the draft the right to recoup all losses from the exporter, if any occur. For example, suppose that when the cotton reaches England it is refused by the importer on the grounds that it is not up to specifications. In the meantime the exporter has probably sold the draft to his bank. The hypothecation certificate gives the exporter's bank full power to sell the goods for whatever they will bring, and then go back to the exporter and recover any loss which

may have been incurred. One of the advantages which has been claimed for the acceptance over the promissory note is that it gives some indication of the nature of the transaction from which it arises. It is these attachments which furnish that information. Consular invoices and inspection certificates are likewise required.

With these attached documents the exporter takes the draft to his bank and sells it. His bank will pay him $10,000 minus a discount at the going rate for the length of time before collection (ordinarily more than sixty days, because the draft is payable after sight, that is, after the importer's bank sees it, which will probably be some eight to ten days after it is drawn). The exporter, therefore, has his money for his cotton, and unless something irregular develops out of the transaction, he is no longer involved in any way. His bank will forward the draft to its English correspondent, which in turn presents it at the importer's bank for acceptance. If it is a D/A bill, the importer will be able to secure the cotton as soon as the bank has accepted the draft. The draft, after being accepted, is then returned to the English correspondent of the exporter's bank. The correspondent bank awaits instructions from the exporter's bank as to whether it wishes the acceptance held until maturity or sold immediately in the open market. Two factors primarily determine the instructions which the American bank will give its English correspondent with regard to the holding of the acceptance: first, how much it needs funds in its London account; and second, the difference in discount or interest rates between the United States and England. If the American bank needs its deposit in the London bank built up, it may decide to have the draft sold immediately. It will probably be sold to a London discount house, which in turn will sell it to a commercial bank or an individual. After it is sold, the American bank then has an additional deposit in its London correspondent bank against which it may sell sterling drafts.

If the discount rate is higher in London than in New York, however, the American bank may prefer to hold the acceptance until maturity; but if the rate is lower in London, it will probably have the acceptance sold immediately, regardless of whether it needs funds in its London account. A higher discount rate in

London will cause the draft to bring less in the London market than the exporter's bank paid the exporter for it (the amount of time which has already elapsed being neglected), while a lower rate will cause it to bring more. If the exporter's bank anticipates a change in exchange rates before the acceptance falls due, this will likewise enter into the consideration of whether to hold the acceptance until maturity or to sell it immediately.

At maturity the holder of the acceptance will present it to the importer's bank for payment. The importer's bank pays the draft; supposedly the importer has in the meantime, under the trust-receipt agreement, provided the bank with the means of payment. He is able to do this because sixty days previously he was given possession of the goods and therefore has had an opportunity to dispose of them.

This completes the description of one of the most common methods used in the financing of export transactions. A transaction of this kind would probably be drawn in terms of pounds rather than dollars, but the same procedure would result. The exporter's bank would pay the exporter in dollars and would receive its money in pounds. Therefore the amount it would pay the exporter would be determined by exchange rates as well as discount rates. The exporter would, of course, take the exchange rate into account when quoting prices in terms of pounds.

Other Methods of Financing International Trade. There are many variations of this method. Two of the most important ones are the following: (1) To have the importer secure a letter of credit from a bank in the exporter's country rather than from a bank in his own country (probably because there are no adequate banking facilities in the country of the importer). This is known as an export letter of credit in contrast to the import letter of credit, which is more commonly used. In the case of American exports to Guatemala, for example, the Guatemalan importer probably would be required to secure a letter of credit from an American bank upon which the American exporter could draw, since there may be no banks in Guatemala which the exporter would care to draw on. (2) To have the exporter draw, in addition to the draft on the importer or the importer's bank, a draft on his

own bank. The exporter obtains his money from the proceeds of the sale of the draft drawn on his own bank after it has been accepted, and he turns over the other draft to his bank, which puts it through the usual procedure and is therefore reimbursed for the funds which it advanced to the exporter on the first draft. A more detailed description of the procedure is as follows: Assume again that the American is the exporter and the Englishmen the importer. After shipping the goods the exporter presents two bills, with documents attached, to his bank: the banker's bill for acceptance and the trade bill for collection. The bank accepts the first bill (the banker's bill), probably sells it in the open market for the exporter, and credits the proceeds to his account. The bank, therefore, must pay this bill at some later date. To obtain the funds to meet this bill at maturity the bank is given the trade bill, which is drawn directly upon the importer. This it sends to its London correspondent, which in turn presents it to the importer for acceptance. If the two bills have the same maturity, the exporter's bank will receive payment for its trade acceptance at the same time as it has to furnish payment for the bank bill, which it had previously accepted. The American bank could, of course, sell the trade bill immediately after it had been accepted by the importer at its face value less the discount for the time which it has to run. Whether or not it would do this would be determined by the previously mentioned factors: the difference in interest rates, the present rate of exchange, and its need for immediate funds in its London account.

The Trade Acceptance. If, in our illustration, the importer were sufficiently well known to the exporter, so that the exporter had confidence in the importer's willingness and ability to pay, the draft might be drawn directly upon the importer. This would be a trade acceptance, not a bank acceptance. If, in the United States, the importing companies were the United States Steel Company, the Standard Oil Company of New Jersey, or the Pennsylvania Railroad, one would expect the trade rather than the bank acceptance to be used, because these corporations are as well known and enjoy as good a credit standing as most banks. Many companies are now selling upon open-book accounts to the

larger and more reputable concerns. There is also a growing use of the ordinary bank check as a means of paying for goods purchased in foreign countries by Americans.

Bankers' Bills. So far our discussion has been limited to commercial bills of exchange. Let us now turn to an examination of bankers' bills. As was pointed out previously, these bills do not usually arise, at least directly, out of merchandise transactions. Although the terminology is somewhat confusing, it is convenient to group bankers' bills other than cables and sight drafts into two classes: (1) finance bills and (2) bankers' long bills.

Finance Bills. The finance bill is used to anticipate changes in the exchange rate and to aid an individual bank in securing funds for a short period. The procedure is as follows: Suppose that the Guaranty Trust Company of New York is temporarily in need of funds. It gets in touch with its London correspondent — say, Barclay's — and asks if it may draw a sixty-day draft on Barclay's if it will furnish "cover" when the draft matures. Barclay's consents to the arrangement, for which it makes a small commission charge, and the Guaranty Trust Company draws a sixty-day draft on Barclay's and sells it in the New York market. The buyer puts the draft through the same procedure as the exporter's bank in our previous example. The main point is that the Guaranty Trust Company has the use of the proceeds which it obtains from the sale of the draft for the sixty-day period. At the end of that period it must purchase a cable or a sight draft in order to furnish cover to Barclay's. Barclay's, therefore, has not been out any funds, but would have been out the amount of the draft if the Guaranty Trust Company had failed to furnish cover.

There is another reason for the use of the finance bill: to anticipate exchange-rate changes, or, as is frequently said, to "sell exchange short." Suppose that the Guaranty Trust Company's draft on Barclay's was for £1000, and that the Guaranty Trust Company was able to sell it at $4.87 and therefore had the use of $4870 for some sixty days. If at the end of the period it could purchase cover for an amount less than $4870 (plus interest on $4870 for sixty days), the transaction would be a profitable one. In other

words, three factors determine the profitableness of the finance bill: first the exchange rate on time drafts at the time the finance bill is drawn; second the rate of interest on funds in the United States for the duration of the finance bill; and third the rate of exchange on sight drafts or cablegrams at the time of maturity. In general, if exchange rates go down during the period, the transaction is profitable.

Some writers have insisted that finance bills can be used by any country to aid in financing such seasonal projects as crop movements. This is clearly not the case, because, in our example, to the extent that the Guaranty Trust Company had additional funds during the period, the agency to which it sold the draft (probably another bank) was out the funds. The finance bill, therefore, aids the individual bank but not the entire country. It is possible, however, that if finance bills of sufficient volume were drawn at a time when the United States, for example, was experiencing a gold outflow, exchange rates might be forced down below the gold-export point. This would result because of the added supply of sterling funds in New York. The prevention of the gold outflow might be considered as a distinct advantage accruing from the use of finance bills.

Bankers' Long Bills. Some writers do not distinguish between finance bills and bankers' long bills. The distinction, although not absolutely necessary, is convenient for certain purposes. The difference between a banker's long bill and a finance bill is one of origin. In the case of a banker's long bill the accepting bank initiates the transaction, not the drawer. In our previous example of a finance bill, this would mean that Barclay's would ask the Guaranty Trust Company to draw the draft on it, lend the proceeds for it in the American market for sixty days, and then purchase a sight draft or a cablegram at the end of the period. If there is any profit in the transaction, it accrues to Barclay's, while in the case of a finance bill, the profit, if any, goes to the Guaranty Trust Company. The same holds true in case of loss. The purpose of a banker's long bill is to anticipate a downward movement in exchange rates. The procedure is exactly the same for a banker's

long bill as for a finance bill, but in the case of the former the Guaranty Trust Company acts merely as an agent for Barclay's, from which it receives a small commission.

Discount and Acceptance Markets. Before the establishment of the Federal Reserve System in 1913 there was almost no discount or acceptance market in the United States. Until that time the national banks were not allowed to accept drafts for their customers. In England there are specialized acceptance and discount houses. We have in the United States what we call commercial-paper houses, which are our nearest approximation to the London discount houses. These commercial-paper houses are relatively few in number, and their business is limited primarily to the purchase of promissory notes from large and reputable American corporations. These notes are of short duration, and the commercial-paper house relies for its profit on its ability to purchase these promissory notes at a lower price than the price at which they sell them.[1]

There are a few acceptance houses in the United States. These organizations do a large portion of their business in connection with the storage of readily marketable commodities. A cotton-grower, for example, may wish to hold his cotton for a short period after it has been harvested in the hope of obtaining a better price. It may not be possible, however, for him to finance this carry-over, since he may need his money to pay for the expenses incurred in growing his cotton. He may obtain the selling price of his cotton or at least a large portion of it by storing the cotton and securing a warehouse receipt; this he offers to his bank as security for a draft which he will draw on the bank. If he fails to furnish cover to the bank at the time of the maturity of the bill, the bank may seize his cotton and sell it in order to satisfy its claim against him. After the grower has drawn the draft on his bank and it has been accepted, the draft then may be sold in the open market, and in this manner he receives funds immediately. At the end of, say, the ninety-day period for which the draft is drawn, he must furnish cover to his bank, since the holder of the acceptance will present

[1] For a more complete discussion of commercial-paper houses see Chapter XXVIII.

it to the bank for payment. He may sell the cotton in order to obtain the funds which he must turn over to the bank. If the price of cotton has gone up during the ninety-day period, as he anticipated, he will benefit by the transaction, his only expenses being a small commission charge which he pays his bank, the amount of the discount on the acceptance, and the cost of storage.

The open market in which the bill is sold after the grower's bank has accepted it is made up chiefly of the few acceptance houses which we have in the United States. These houses purchase acceptances in the hope of reselling them at a higher price. Commercial banks are the chief customers of these houses, and the Federal reserve banks stand ready at all times to purchase acceptances in unlimited amounts.[1]

International Financial Centers. For a number of years before the World War there was no question as to the supremacy of London as the world's financial center. In many cases we were forced to pay for our imports in terms of English pounds. For example, we might pay for our silk imports by purchasing sterling drafts. After the World War, England did not return to the gold standard until 1925; and until this stabilization took place, her exchange rates underwent wide fluctuations. As a consequence she probably experienced a decline in her position as the chief international financial center. No doubt one of the most important factors in her return to the gold standard in 1925 at the former level was her eagerness to regain her position as the world's financial center. New York has gained on London so rapidly as a financial center that it is difficult to determine whether New York or London is *the* financial center. Both are important. England's facilities, experience, colonies, and prestige have aided her materially in this connection.[2]

[1] Acceptance houses are likewise discussed in more detail in Chapter XXVIII.

[2] All references on foreign exchange will be found at the end of Chapter XIV.

CHAPTER XIV

THE BALANCE OF INTERNATIONAL PAYMENTS

Probably every nation in the world has at some time or other striven to establish a favorable balance of trade. This means an excess of merchandise exports over merchandise imports. An understanding as to just why an excess of exports over imports is considered favorable for any country will lead us back to a study of the mercantile system. During the sixteenth and seventeenth centuries, when world trade was becoming more important, there developed a group who held that the State should do all in its power to encourage the export industries, so that a country would always have specie flowing into it. To the mercantilists a situation of this kind meant national financial strength. No doubt an argument could be advanced to show that under certain conditions an excess of merchandise exports over merchandise imports would be unfavorable. But the fact that the United States, for example, continues to maintain a so-called favorable balance of trade is nonetheless a matter of great satisfaction to many of its people.

Before the latter part of the nineteenth century the majority of international transactions arose from the exportation and importation of merchandise. At the present time many international transactions arise from the sale of securities, from loans, war debts, tourists' expenses, immigrant remittances, etc. When we speak of the net results of all international transactions, we usually use the term "balance of international payments" rather than "balance of international trade." This latter term we reserve exclusively for merchandise transactions.

Visible versus Invisible Items. Common terminology refers to the exportation and importation of goods as visible items in our balance of international payments, while all other transactions which necessitate the transfer of funds from one country to an-

other fall under the head of invisible items. Just what is an invisible item? An invisible import is an international transaction which produces a flow of funds in the same direction as that in which a visible import produces a flow of funds; and an invisible export is an international transaction which produces a flow of funds in the same direction as that in which a visible export produces a flow of funds. To illustrate: Tourist expenditures are one of our largest invisible items. When the American tourist travels abroad, it is just as necessary for him to convert his money into foreign currencies as it is for the American importer who wishes to pay for goods purchased in foreign countries. According to our definition the traveling of our tourists in foreign countries gives rise to an invisible import; that is, money flows out of the United States as it does when we import goods. Immigrant remittances have been an important invisible item in the balance of international payments for the United States. These remittances too are invisible imports, because they produce a flow of funds in the same direction as that of the flow which results from the importation of goods. The interest which we receive on our foreign investments is an invisible export, because as a result of these payments the flow of funds is toward this country, which is likewise the result of our merchandise exports.

Balance of International Payments of the United States, 1922–1933. The accompanying table gives the balance of international payments of the United States for the years 1922–1933. All items which appear in the balance of international payments are balancing items, that is, net differences. Take the case of long-term investments. In 1933 this item appears under credits as net capital import. The $49,000,000 listed there does not mean that foreign investors invested $49,000,000 in the United States in 1933, but rather that there were $49,000,000 more long-term investments made in this country by foreigners than we made in other countries. This, of course, necessarily means that long-term foreign investments here totaled at least $49,000,000. In the case of commodities we had an excess of exports over imports during every year of this period. The amount has run as high as $1,037,000,000 in 1928 and as low as $225,000,000 in

Balance of International Payments of the United States, 1922–1933

(In millions of dollars)

DEBITS	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
Tourist expenditures	300	400	500	560	498	528	552	638	602	456	375	221
Immigrant remittances, charity, etc.	400	360	355	360	264	255	276	265	215	202	163	132
Government transactions	16	19	5	5	43	29	57	92	81	100	70	53
Net capital export (long-term investments)	669		545	459	605	705	675	141	278			
Paper currency			50	60	40	55	40	15		10	80	90
Short-term credits				61			188	80	485	709	409	385
Miscellaneous and error			13			888	262	262				
	1385	779	1468								1097	
Gold (imports)	235	295	216		72			120	278		11	
	1620	1074	1684	1505	1522	2460	2050	1613	1939	1477	1108	881
CREDITS												
Commodity-trade balance	719	375	981	683	378	681	1037	841	782	334	289	225
Return on foreign investments	225	250	305	355	467	519	534	565	616	536	393	389
Return on war debts	157	258	182	187	195	206	207	207	241	113	99	20
Short-term credits	375	3	216		350	900						
Paper currency		50							20			
Net capital import (long-term investments)		18								218	217	49
Miscellaneous and error	144	120		178	132				280	100	110	25
				1403		2306				1301		708
Gold (exports)				102		154	272			176		173
	1620	1074	1684	1505	1522	2460	2050	1613	1939	1477	1108	881

1933. In 1919 the excess was approximately $4,000,000,000. In addition to this commodity balance there are a number of other items which have been classed as invisible. This does not include gold, since gold is the balancing item, and is not considered as visible or invisible. The table shows therefore that for 1922 we owed other countries $1,385,000,000. This was for the privilege of traveling there, investing our money in their industries, sending money to our friends there, and paying for services rendered. For various other reasons, including the fact that other countries bought more goods from us than we bought from them, it was necessary for other countries to pay us $1,620,000,000 in 1922. Since they owed us $235,000,000 more than we owed them, it was necessary for them to send us $235,000,000 in gold. In 1931, however, we owed foreign countries $1,477,000,000, while they owed us $1,301,000,000; we settled this difference by sending them $176,000,000 in gold. In seven of the twelve years there has been a flow of gold into the United States. The net balance of international payments also caused us to gain gold during 1934.

The top group of items have been classified under the heading "Debits." It would perhaps be more in keeping with our analysis if the heading were "Invisible Imports," because every item which appears there is an invisible import, except gold, which is classified neither as visible nor invisible.

Tourists' Expenditures. The first item under "Debits" is "Tourist expenditures." Every year since 1922 (and even before) Americans have spent more to travel in foreign countries than foreigners have spent to travel in the United States. This excess since 1922 has run as high as $638,000,000 in 1929 and as low as $221,000,000 in 1933, four years later. In general this item is one of the largest balancing items. In 1933 this difference was made up as follows (in millions of dollars):

	Receipts	Payments	Balance
Canada	35	101	− 66
Mexico	4	28	− 24
Overseas areas	32	163	− 131
Total	71	292	− 221

Immigrant Remittances. The debit item "Immigrant remittances" is made up of the payments which persons residing in the United States make to friends and relatives in foreign countries. The countries to which these payments are made, listed in order of importance, are Italy, Greece, Poland, Russia, the Irish Free State, Germany, Czechoslovakia.

Government Transactions. Government transactions include items exclusive of war-debt receipts. The Department of Commerce explains the composition of this item as follows:

> In 1922, receipts from foreign governments comprised refunds from the United Kingdom, while our payments were chiefly on account of the indemnity to Colombia ($5,000,000 per annum, ceasing with 1926), net cost of the Army of Occupation, and Russian relief ($20,000,000). Besides the Colombia indemnity, the chief items in our governmental remittances abroad in 1923 were the Norway arbitration award ($12,239,852) and expenditures by the War Department abroad ($1,474,342). Until 1926, sums spent by the United States Government on account of diplomatic missions, naval ships in foreign ports, etc., were assumed to be offset by the expenditures of foreign governments for similar purposes in this country and by consular fees collected abroad. Among the items entering into the estimates for years subsequent to 1926 are: Receipts from Germany on account of the cost of the Army of Occupation and awards by the German Mixed Claims Commission; receipts from Panama Canal tolls; naval and military expenditures abroad; expenditures for representation; indemnities; disbursements by the Veterans' Bureau and by the Alien Property Custodian, etc.[1]

Long-Term Investments. Net capital export is the excess of American long-term investments made in other countries over the long-term investments which other countries are making in the United States. This item should perhaps be called foreign investments, because it is an invisible import. Foreign investments take primarily two forms: the amount which we put into foreign industries through the sale of foreign securities in the United States, and the amount which we invest in our own industries set

[1] United States Department of Commerce, *The Balance of International Payments of the United States in 1933*, p. 98. United States Government Printing Office.

up in foreign countries. When we purchase foreign bonds, we are investing in foreign enterprises, and when American corporations build plants in foreign countries, they are (though investing in their own businesses) engaged in an enterprise which produces an outflow of funds; so both transactions are invisible imports. It will be noticed that except for 1923 this invisible-import item was one of the largest which appeared every year between 1922 and 1929. The net-capital-import item, which appears under "Credits," means that foreign countries are making more long-term investments in our country than we are making in theirs. This condition has existed in only four of the twelve years, including the last three years. The shift in the long-term-investment balance is easy to explain when one remembers how difficult it was to sell foreign securities in our markets during these years. The large number of defaults among foreign issues was, no doubt, largely responsible for this situation.

The present status as of December 31, 1933, of American investments abroad, as estimated by Dr. Paul D. Dickens of the Finance and Investment Division of the Department of Commerce is as follows:

AMERICAN INVESTMENTS IN FOREIGN COUNTRIES, BY AREAS, AS OF DECEMBER 31, 1933

(In millions of dollars)

AREA	TOTAL
Canada and Newfoundland	3,950
Europe	4,132
Latin America	4,925
Africa, Asia, and Oceania	1,522
Total	14,529
Add: Bank capital	125
Deduct: Estimated net repurchases	855
Net total	13,799

Paper Currency. The paper-currency item includes the United States currency which actually flows into other countries. Thus if Parisian shopkeepers accept American, as well as French, money for their wares, many Americans will take dollar currency to France. If in a given year more currency is taken to foreign coun-

tries than is returned from foreign countries, this is regarded, therefore, as an invisible import.

Short-Term Credits. Short-term credits consist chiefly of deposits which we place in foreign banks and the purchases of short-term commercial paper (such as acceptances) which we make in foreign markets. If in any given year we made more short-term investments in foreign countries than foreign countries made in the United States, this net balance would be a debit and would be classified as an invisible import.

International short-term-credit transactions have been especially important since the World War. These movements are very closely connected with what we frequently refer to as the "flight of funds." The Department of Commerce describes these movements between 1929 and 1933 as follows:

For the fourth successive year the international short-term creditor-debtor position of the United States was featured by exceptionally large net withdrawals of dollar balances from this country by foreign banking creditors. As a result of these steady withdrawals, foreign short-term banking assets in the United States were reduced from more than $3,000,000,000 at the end of 1929 to $487,000,000 at the end of 1933. During the same period American short-term funds held abroad declined from roughly $1,600,000,000 to an estimated figure of $1,082,000,000 The trend of the latter item was, however, highly irregular, as contrasted with the steady decline in foreign-owned dollar balances.

After rising to about $1,800,000,000 at the end of 1930, the foreign short-term assets of American banks fell sharply during 1931 to approximately $1,239,000,000. However, as a result of the German Standstill Agreements and exchange restrictions in various countries the withdrawals were comparatively small in 1932, while during 1933 the total outstanding showed an increase (estimated at $29,000,000).

The steady decline since the end of 1929 in short-term dollar investments by foreign banks is reflected in the sharp drop in dollar acceptance holdings by foreign banks. At the end of 1929 foreign short-term funds invested in American bankers' acceptances stood at the record total of $891,000,000, or 51 percent of the $1,732,436,000 outstanding, also a record year-end figure.

The debtor position of the United States on short-term capital account underwent a rapid change after the stock-market collapse late in 1929. The decline in speculative activity and falling money rates led to steady

reductions in foreign short-term dollar claims during 1930. The banking crisis in central Europe, subsequent to the revelation (in May 1931) of the condition of the Creditanstalt of Austria, had a pronounced effect on the international short-term position of the United States. The panic at once spread from Austria to Germany, whose banks and money markets had during the previous year or more become the principal short-term debtors to foreign banks (including the American) which now undertook to withdraw their funds as rapidly as possible.

During the crisis, which soon extended to England, emergency credits were extended in large volume by American and other central banks. With the suspension of gold payments by England late in September of that year, European creditor banks shifted their demands from London to New York. The resulting conversion of dollar balances into gold became the first of a series of unprecedented withdrawals, the last of which was the sharp reduction in foreign dollar balances during February-March 1933.

In the meantime, the panicky withdrawals of short-term funds from Germany had been checked through the Standstill Agreement of August 19, 1931. There resulted a situation in which withdrawals by foreign banks of their dollar balances from the United States were for the time being left unrestricted, while liquidation of American short-term claims on German banks was limited to the terms of restrictive agreements.

A second heavy withdrawal by foreigners of their dollar balances came in May-June 1932, and was influenced to a considerable degree by rumors relative to the budgetary situation in the United States and by various proposals threatening currency inflation. The reduction of foreign dollar funds during this period reversed the former position of the United States to the status of creditor on short-term capital account.

Foreign withdrawals increased during the American banking crisis of February-March 1933. The steady reduction of foreign short-term dollar claims on the United States, during a year when American banks experienced a slight increase in their short-term claims on foreign banks, strengthened this country's creditor position on short-term account to the point where the statistical position of the United States in its relation to the rest of the world was exactly the reverse of its position at the end of 1929.[1]

[1] United States Department of Commerce, *The Balance of International Payments of the United States in 1933*, pp. 38–40. United States Government Printing Office.

Miscellaneous Items. Included in the miscellaneous items are the payments for freight and shipping. This, in general, means the amounts which the United States pays foreign countries for carrying its goods in their ships. This amount is almost always greater than the amount which foreign countries pay the United States for performing the same service.

In two years, 1927 and 1930, the figures representing unestimated items — errors, omissions, etc. — were comparatively high. The Department of Commerce gives the following explanation:

> The current items reported for 1927 were compiled or estimated by methods outlined in that year's issue of this bulletin. The estimates of capital movements are entered as reported in the questionnaires returned by the reporting institutions, except for the usual small omission estimate in the case of the long-term security transactions. It is probable that a great part of the "unestimated items, errors, omissions, etc.," is offset by erroneous and/or incomplete returns on capital movements, particularly those relating to the reported sales and purchases of outstanding long-term issues in the international security markets. The same probability applies to the smaller but substantial item of 1930.[1]

Gold Movements. The gold movements as reported in the table for the balance of international payments include the changes in the volume of earmarked gold, as well as the volume of physical imports and exports of gold.

An increase in the volume of earmarked gold held by other countries in the United States is counted as a gold export, while a decrease in the volume of earmarked gold held by other countries in the United States is considered as a gold import.

Commodity-Trade Balance. Under the heading "Credits" the first item is "Commodity-trade balance," which is self-explanatory. Our balance of trade by continents and great trade regions for 1933 was as follows (excess of exports (+) or imports (−) in millions of dollars)[2]:

[1] United States Department of Commerce, *The Balance of International Payments of the United States in 1933*, p. 100. United States Government Printing Office.

[2] Ibid. p. 11.

North America	
Northern	+24
Southern	−1
South America	−88
Europe	+388
Asia	−134
Oceania	+22
Africa	+15
Latin America	−89
Far East	−104
Total	+225

Net Return on Foreign Investments. The net return on foreign investments includes the interest which foreign nations pay the United States on American investments abroad. In the case of our own factories abroad we really pay ourselves interest and dividends; but since both cause a flow of funds into the United States, these items are classed as invisible exports. This again was a slowly increasing item until 1930, as would be expected because of the excess of American investments in foreign countries over the investments which they made in the United States. Defaults in both interest and principal since 1930 have caused this item to decline. The return on foreign investments, which shows the position of the United States as a creditor nation, continues to represent one of the largest items which appear on the American balance of international payments. The $389,000,000 balance of interest and dividends on foreign investments which the United States received during 1933 in excess of what it paid to foreigners on their investments here may be summarized as follows[1]:

Credits (Receipts by Americans)	Millions of Dollars
Interest on American holdings of foreign bonds	267
Earnings on American-owned direct investments abroad	105
Interest and earnings funded	27
Earnings on American short-term investments abroad	43
Receipts on stock-transfer taxes, brokerage fees, commissions, etc. (net)	10
Total	452

[1] Ibid. p. 22.

Debits (Payments by Americans)	Millions of Dollars
Payments to foreigners on long-term investments in the United States	60
Payments to foreigners on short-term investments in the United States	3
Total	63

Return on War Debts. Return on war debts is the interest and principal that foreign countries have paid the United States on the money which they borrowed from it during the war. This item steadily increased between 1922 and 1930, and would have reached a high point about 1940 had it not been for the one-year moratorium beginning in July, 1931, and subsequent defaults.

Before leaving the description of the items in the balance of international payments of the United States, we should point out that in almost every year of the period covered there was some invisible item which was as large as the commodity-trade balance. During the last three years the largest balancing items were short-term credits and return on foreign investments. This does not mean, of course, that the invisible items are as large in absolute volume as the visible items, but it does mean that so far as the *balance* is concerned the invisible items are as important as the visible items, or even more important.

The Favorable Balance of Trade of the United States. In each of the years included in our table the United States had a favorable balance of trade. This has likewise been the case since about the beginning of the last quarter of the nineteenth century. During most of this period, up to approximately the time of the World War, the United States was a debtor nation. This meant that it made large interest payments to foreign countries annually; and partly because of these payments, other countries were able to purchase more goods from the United States than they sold to it. Since the World War the United States has been a creditor nation, but it continues to maintain its favorable balance of trade. It probably should be said that this favorable balance of trade is maintained *in spite of the fact* that it is a creditor nation rather than *because* it is a creditor nation. Most creditor nations have found that after they have reached the "mature" creditor stage

their trade balance has become unfavorable. England has had this experience. Its balance of trade has been unfavorable for a number of years. It has been able to pay for the excess of its merchandise imports over its merchandise exports with the interest which was due it from foreign countries and with the large sums which it received for carrying foreign goods in its ships.

Many have forecast that the United States will lose its favorable balance of trade if it continues in its position of a creditor nation. Since the war it has been able to maintain its favorable balance of trade in spite of being a creditor nation owing primarily to its tourist expenditures abroad and to the long-term investments which it was making in foreign countries. Both these items declined noticeably between 1930 and 1933.

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CHAPTER XV

FUNCTIONS OF A BANK

Our word "bank" comes to us from the German *Bank* via Italian (*banca*) and French (*banque*). The original meaning of the word, "shelf" or "bench," was extended in Italian to that of the bench or table of a money-changer, whence the meaning "money-changer's place of business," whence the common present-day meanings of the word.

In colonial times the term was applied to any batch or accumulation of paper money. Thus a "new Rhode Island bank" meant a new emission of bills of credit of that colony. In the early days of the American republic a bank was an association whose main business was the issuing of notes to circulate as money, and the phrase "banking privileges" meant the right to issue such notes. Daniel Webster even said that the power to issue notes to circulate as money was the feature which distinguished a bank from every other institution. At the present time the issuing of notes is not a necessary function of banks.

A Manufactory of Credit. A bank in the modern sense is a manufactory of credit and a machine for facilitating exchanges. It is commonly said that banking consists in receiving money from depositors and lending it to borrowers. This is the proper function of a savings bank; but it is only a part, and not the largest part, of the business of a commercial bank. The money deposited in such a bank forms only a portion of the assets which go to make up the bank's credit, which it issues to borrowers, sometimes in the form of circulating notes payable to bearer, but oftener in the form of book entries transferable by means of checks.

An analysis of modern banking is substantially this: A man has $10,000 of his own money. He starts a bank. His neighbors deposit $50,000 with him. This money becomes the absolute

property of the banker. The depositors have simply a right to withdraw an equal amount whenever they like, which right can be enforced by law. The banker owns the money and the depositor has a claim, or right of action, against him for an equal sum. But the depositors will not draw the money out immediately; if they had intended to do so, they would not have deposited it at all. The banker finds by experience that some of his customers will bring in as much money as others draw out, so that $60,000 is on hand all the time. He infers that if his own $10,000, together with his good reputation, is considered by the public a guaranty for $50,000, then the whole $60,000 will serve as a guaranty for a much larger sum. When he begins, his balance sheet reads in this way[1]:

Resources		Liabilities	
Cash	$60,000	Capital	$10,000
		Deposits	50,000
	$60,000		$60,000

Discounting Commercial Paper. The banker now begins to buy promissory notes or bills of exchange due at a specified time in the future, paying the face value of the same, minus interest at a certain rate for the intervening time. This is called discounting commercial paper. When he discounts for one of his customers a note of $1000 running ninety days, he deducts the interest (say, $15), entering the amount under the head of profits due to stockholders, and writes the remainder, $985, on the credit side of the

[1] In keeping the accounts of a bank or of any other business the business itself is considered as indebted to the shareholders for the money they have put into it, and for all the profits earned but not paid to them. In the case we are now considering, although there is only one shareholder, the same rule applies. The conception of a bank's capital as a liability is the pons asinorum of banking science. It can be understood best perhaps by observing how the assets of a failed bank are disposed of. The receiver, in such a case, represents the bank. Suppose that the assets realize more than the claims of all the creditors. The excess is paid to the shareholders because the bank *owes* them whatever remains after other claimants are paid in full. In short, there are preferred claims (those of creditors) and ordinary claims (those of shareholders). Both are liabilities of the bank, and equally valid ones, in their proper order.

customer's passbook, entering a corresponding sum as a credit to that person's account in his own books. This credit is called a deposit, and properly so, since the net purport of the transaction is that the banker has bought an interest-bearing security and the seller has deposited the money he received for it in the bank, to be drawn out at his pleasure. If the customer had deposited $1000 in currency simultaneously with the foregoing transaction, his total deposit would have been $1985. Yet there is a difference between the two kinds of deposits, the one being of money and the other a bank credit. Chester A. Phillips has classified the first as a *primary*, the second as a *derivative*, deposit. In practice the bank credits at any given time may be several times as large as the amount of cash in the bank.

The process of discounting commercial paper continues until the banker has $200,000 of bills receivable in his portfolio. Then his account stands thus [1]:

Resources		Liabilities	
Cash	$60,000	Deposits	$247,000
Loans and discounts	200,000	Capital	10,000
		Profit	3,000
	$260,000		$260,000

Thus the business venture called a bank owes to depositors and to the banker himself $260,000; and it has assets which will produce that amount, but only $60,000 of it is cash. It follows that the banker has manufactured something which serves as a medium of exchange to the extent of $197,000. This is credit. Goods can usually be bought and sold with it as readily as with money, since checks drawn against deposits are accepted in trade by the whole community. The whole $200,000 of bills are not discounted at one time, but gradually, so that some are always maturing and bringing in money to meet the banker's liabilities.

Alexander Hamilton saw clearly how a bank serves as a manufactory of credit, and how it economizes the use of capital. He had a clear understanding of the nature of deposits, although there

[1] *Theory and Practice of Banking* (fifth edition, Vol. I, p. 324), by Henry Dunning Macleod. Longmans, Green & Co.

had not yet been published any scientific analysis of banking operations. In his report on the Bank of the United States he said:

> Every loan which a bank makes is, in the first shape, a credit given to the borrower on its books, the amount of which it stands ready to pay, either in its own notes, or in gold or silver, at his option. But, in a great number of cases, no actual payment is made in either. The borrower, frequently, by a check or order, transfers his credit to some other person, to whom he has a payment to make; who, in his turn, is as often content with a similar credit, because he is satisfied that he can, whenever he pleases, either convert it into cash, or pass it to some other hand, as an equivalent for it. And in this manner the credit keeps circulating, performing in every stage the office of money, till it is extinguished by a discount with some person who has a payment to make to the bank, to an equal or greater amount. Thus large sums are lent and paid, frequently through a variety of hands, without the intervention of a single piece of coin.[1]

Limit to Bank Credits. The banker's deposits are payable on demand. In the case considered above, the depositors might have drawn their checks simultaneously for $247,000, payable to persons who were not depositors in the same bank, in which event they could not all have been paid, although the bank would be eventually solvent. It would be able to pay in full, but not until its bills receivable should mature. Probably such a case as a simultaneous withdrawal of all deposits has never actually happened, but it is quite possible that the depositors might draw at once for more than $60,000 — that is, for more cash than the banker has on hand, in which case the bank would have to close its doors. Recent American experience is a case in point.

Thus there is a limit to the banker's power of discounting commercial paper. He is limited by the probable calls of his depositors for money to be withdrawn from the bank. The amount kept on hand to meet such demands is called the cash reserve. It may con-

[1] Although this lucid conception of the philosophy of modern banking was published in 1791, it was the task of Mr. H. D. Macleod (and not an easy one) to systematize and bring it into general recognition and acceptance by economists more than half a century later.

sist of any kind of currency which is commonly accepted. Its amount must be proportionate to that of the deposits. The right proportion can be learned only by experience and only approximately. It varies in different countries, and at different places in the same country; and the local banker, as the person most thoroughly conversant with local conditions, has, as one of his most important duties, the ascertainment and preservation of that reserve which most nearly meets the needs of his community.

Other Limits Set upon Individual Bank Expansion. This limitation upon the amount which an individual bank may lend is revealed in another way. In the case of the bank just described it was said that the banker had manufactured $197,000 in credit. But suppose that the borrowers promptly began to draw checks against the deposits placed to their credit as a result of the loans and sent these checks out of town in payment for purchases. Those who received these checks would promptly deposit them in their local banks and receive deposit credits for them. The out-of-town bank would then send the checks received in this manner back through a correspondent bank in a large city to the bank upon which they were originally drawn. Under our present system the checks might come back to the original bank through a Federal reserve bank.

The process by which such checks are cleared or collected will be described in a later chapter. The point is that the original bank must somehow find funds with which to recompense the out-of-town bank in which the checks were deposited. For the out-of-town bank has given its depositors credits for the checks and now must secure an equal amount from the bank upon which the checks were originally drawn. This bank, therefore, must meet the checks when they come back and in some manner find the necessary sum. It may turn over actual cash to the clearinghouse, the Federal reserve bank, or the bank through which the check comes home. Or it may draw a check upon a deposit held in the Federal reserve bank or a correspondent bank in New York.

It will then readily be seen that any bank which starts on a career of rapid expansion of its loans and discounts may suddenly find itself faced with a large adverse clearinghouse payment

which must be met. This may be so large that it will lose most of its cash reserve or be forced to draw heavily upon its deposit in a correspondent bank or the Federal reserve bank. Consequently no bank can, individually, increase its loans and investments so rapidly that it finds itself drained of cash on hand or its deposits in other banks.

If, however, all banks in the banking system as a whole are expanding at the same rate, the result will be different. Each bank will have coming to it payments for checks on out-of-town banks which its customers have deposited with it. It can use the claims thus created to offset the claims against it from out-of-town banks. In other words, while its own depositors are drawing checks against their balances and sending them to persons who deposit them in other banks, checks drawn by depositors in other banks are steadily coming to it. If its claims against other banks are approximately equal to the claims of other banks against it, and if this is true for all banks, the process of general expansion may continue for some time.

There will be a final check to the expansion when the proportion of reserves to deposits becomes so low that banks feel they must begin to stop the granting of new loans and the creation of new deposits against which reserves must be held. This subject has been treated in detail and with great competence by Chester A. Phillips in his volume *Bank Credit.*

Multiple Expansion upon New Cash Received. An important problem arises when a bank receives actual *cash* upon deposit and endeavors to increase its loans and investments as a result. It has been frequently said that a bank can expand many times upon this new reserve. If, for example, banks are accustomed or required to hold a cash reserve of 10 per cent against deposits, it has been argued that for each new dollar in cash added to its reserve a bank can increase its loans and investments so as to create $10 of deposits.

If the bank were the only bank operating in the country, this would be possible. If we had only one bank, with many branches, expansion to this extent would logically follow. Where, however, there are many banks, any individual bank starting to expand to

such a degree would soon find itself faced with such an adverse clearinghouse balance that it would be forced to stop expansion or be drained of cash. For this reason any individual bank, according to Phillips, can expand only to a small degree above the actual cash received. How much the bank can expand will depend upon whether many of the checks drawn by borrowers on the deposits created are deposited promptly back in the bank itself by other depositors who carry accounts there, or are sent to customers of other banks. Another factor is the proportion of the loan which the bank requires the borrower to keep on deposit.

In some cities where there are three or four city-wide branch banking systems dominating the field, any one bank can expand on the new cash received to a somewhat higher degree than in a city where there are many independent banks. The reason seems to be that in the city with many branches a depositor in one branch may send the check to someone who maintains a balance in another branch of the same system. Some large business houses will carry accounts with at least two of the large banks in their city and deposit a check in whichever one of the banks it is drawn on.

Now comes a point which is difficult to explain simply. Although no one bank can expand to an amount equal to ten times the new cash received, the banking system as a whole may ultimately be able to do so. How can this happen? Let us endeavor to explain it by the following examples:

1. Assume that $1000 in cash is deposited with bank A. Bank A's condition (the other items in its balance sheet being ignored) will be as follows:

Cash	$1000	Deposits	$1000

2. Almost immediately a check for the amount of $100 is written against bank A and deposited with bank B. Upon the collection of that check bank A's condition will be as follows, since it must pay bank B for the check:

Cash	$900	Deposits	$900

Bank B's condition will be as follows:

Cash	$100	Deposits	$100

3. In the same way eight other checks are drawn against bank A for $100 each, and are deposited with banks C, D, E, F, G, H, I, J. Upon the collection of the checks each of the banks, A, B, C, D, E, F, G, H, I, and J, will have

Cash	$100	Deposits	$100

This assumes that there are only ten banks in the country instead of the actual fifteen thousand which we now have. Each bank now has a 100 per cent reserve.

4. Each of these banks, if all expand together, can increase its loans, and consequently its deposits, by $900. After this is done, each bank will have the following balance-sheet items:

Cash	$100	Deposits	$1000
Loans and discounts .	900		

In the course of time more checks may be written against some banks than are deposited with them. On the other hand, other banks will have more checks deposited with them than are collected against them. Thus the balance sheet above indicates the condition of the average bank.

5. The deposits of the whole banking system have thus become $10,000, ten times the banks' reserve cash. But bank A at the beginning will have been able to increase its deposits only approximately to the amount of the reserve money received in the original transaction. Later, when all banks started expanding, bank A along with the others created deposits which were ten times its reserve cash. The multiplication of reserve cash into deposits by a tenfold figure applies to the whole group of banks and not to the original depository institution.

6. The example is also true for a system which has many banks, for gradually the cash originally deposited in one will flow out to other banks and permit a final multiple expansion of approximately 10 to 1. It should not be assumed that bank expansion will always occur in the ratio of 10 to 1. That depends upon legal or customary reserve requirements and banking practices.

Bank Notes. Bank notes are the banker's promises to pay money to bearer on demand. They are virtually orders of the president and cashier on the paying teller. They are of the same nature, and they operate in the same manner, as checks drawn by depositors. Checks and notes are equally lawful demands upon

the bank's cash reserve. The following discussion relates to *general asset* notes issued on the "banking principle."

Now suppose that the bank above mentioned has the right to issue circulating notes of the general-asset type and that the customer whose paper has been discounted desires to use the proceeds in paying the wages of farm hands or factory operatives, or in buying country produce, or in other ways and in places where checks are not acceptable. He will ask for bank notes, in order to pay them to the wage-earners, farmers, etc. He might ask for gold, in which case the bank would be obliged to give it to him if the laws so required, but the notes are more convenient and will be generally preferred by the payees. The payees may demand gold from the bank for the notes, if they choose, but generally they will not do so. They will pay them to storekeepers or others to whom they are indebted, and the latter will deposit them in the issuing bank to their own credit, or in other banks which will send them to the issuing bank for redemption. Eventually they will be paid out of the bank's cash reserve. They will be paid out of the same fund from which the customer's checks would have been paid, if he had drawn the money by means of checks payable to order, instead of taking notes payable to bearer.

The banker cannot decide whether the credit he has extended to his customer shall be used in the form of checks or in the form of notes. Nor does this question concern him in any way, except that the notes may stay out somewhat longer than the checks. His liabilities are the same in either case. The only thing that need concern him is the goodness of the paper which he bought when he issued his credit to his customer. The form of issue, whether in checks that may pass through one or two hands, or in circulating notes that may pass through many hands, is of little consequence; and, even if it were of much consequence, it is beyond his control. It is also beyond the control of the depositor. He will call for notes only in cases where he cannot use checks. The controlling force here is the public demand, to which both the banker and his customers conform. The public demand determines also how long the notes shall stay out after they have been issued. Nobody keeps more notes on hand than he needs. When a man finds that

he has a surplus, he returns it to the bank. Thus the outflow and inflow of bank notes is automatic.

While it is immaterial to the banker whether the credit which he issues shall take the form of checks or of notes, it is important both to him and to the community that it shall take one form or the other, since the alternative is the withdrawal of gold for purposes of circulation and the consequent lessening of his cash reserve; and, as we have seen, the lessening of his reserve by one dollar usually lessens his ability to discount commercial paper by several times that amount. If it is for the interest of the community that the system of bank credits should exist at all, it should be available in the form of circulating notes, as well as of checks; for banking science consists in the substitution of less costly instruments of exchange for more costly ones, according to the demands of trade. The bank note, since it is one of the less costly ones and is indispensable in the modern world, should be readily available as needed. Its utility is greatest in sparsely settled communities, where there are few or no banks.

Evolution of Bank Notes. Bank notes were first issued in England in 1670 or thereabouts. They were instruments of writing executed by goldsmiths to people who had left money in their custody. Several of these notes were found in a back room of Child's Bank (until 1924 the oldest of English banking houses) when it was removed from the vicinity of Temple Bar a number of years ago. The following are specimens [1]:

Nov. 28, 1684.

I promise to pay unto ye Rt. honble ye Lord North & Gray, or bearer ninety pounds at demand.

For Mr. Francis Child & myself
Jno Rogers.

Picture of Temple Bar } No 921.

London, Oct. 20, 1729.

I promise to pay to Mr. Richard Bannister, or order, on demand, twenty pounds.

For Fras. Child, Esq.
Sam Child.

Picture of Temple Bar } No 1792.

[1] Macleod. *Theory and Practice of Banking*, Vol. I, p. 283.

Other similar examples of the origin and evolution of the bank note might be cited. The right to issue such notes was never questioned. They were simply evidences of claims to money deposited with the goldsmith or the bank. As the business grew, and the quantities of notes called for by depositors increased, it became more convenient to print blank forms, to be filled out with the names of the depositors and of the amounts due them. Still later notes were printed for round sums, — as, for example, five or ten pounds, — which could be handed in quantities to the persons entitled to receive them; and these were made payable to bearer or to order, according to the wish of the depositor. The business of discounting commercial paper was added to the goldsmith's vocation very soon after the practice of depositing money with him became common, and then the notes were issued, if desired, to the persons getting the discounts.

Thus the issuing of such notes became recognized as a right at common law. Anybody could issue them and put them in circulation, if people were willing to take them. It was found in course of time that the exercise of this right was exposed to accident and liable to abuse, and that the State must interpose for the protection of society. At first it was believed that such protection could be secured by restricting the issue of circulating notes to a select number of persons of well-known character, generally, but not always, incorporated as a bank. Thus certain charters granted to banks in this country before the adoption of the Federal constitution (the Bank of North America in Philadelphia, the Bank of Massachusetts, and the Bank of New York) contain no mention of circulating notes, since the right to issue them existed without legislative authorization. The Bank of New York began business and issued circulating notes seven years before it received a charter.

Why Interest is Paid for the Use of Bank Notes. In public discussions the question has frequently been asked why the banker should receive interest on his outstanding notes, while the customer pays interest on the note which he gave in exchange for them. As both kinds of notes are debts, why should one of these two persons pay interest more than the other? There is, however,

a vital difference between the two kinds of notes. The banker's notes are payable on demand. Any person into whose hands they come may demand money for them immediately. If he does not do so, it must be because he finds the notes better adapted to his immediate wants. The customer's note, on the other hand, is not payable till a fixed time in the future. It is said in rebuttal that the right to issue notes to circulate as money has been conferred upon one of these parties by statute, and that he has thus been given an artificial advantage. This is an error; for, as we have seen, the statute, instead of conferring a right on the banker, has curtailed a pre-existing right.

How the Banks Aid in the Work of Production. Society derives an advantage from the banker's operations which it can well afford to pay for, whether the credit which he issues takes the form of deposits and checks or of circulating notes. The discount of commercial paper has been aptly defined as "the swapping of well-known credit for less-known credit." The bank first establishes its own credit. Then it is the banker's business to find out what persons in the community are worthy of its credit.

Credit enables persons to obtain the use of capital which they could not otherwise acquire. For the present purpose capital may be defined as anything which aids man to produce wealth and is not gratuitously bestowed, such as tools, materials, food, etc. The banker, if he understands his trade, enables the most deserving persons in the community to get capital, that is, to get possession of the tools and materials of industry without the use of money. The most deserving persons, in the commercial sense, are those who can make the most profitable use of tools and materials, and who are believed to be honest. By swapping its well-known credit for their less-known credit the bank performs a service which they are willing to pay for, and it performs a service to society by economizing tools and materials. Anything which puts these things into the right hands and keeps them out of the wrong hands is a gain to the world. The continuing life of a bank is presumptive evidence that it is doing this thing, for, if it were not, its own losses and expenses would force it to close.

A Bank's Portfolio. The loans, discounts, bonds, and other investments of a bank are generally called its portfolio. Frequently a bank finds that it has accumulated funds which it cannot lend profitably on high-grade commercial paper. It may then invest this sum in government bonds, railroad bonds, public-utility bonds, foreign bonds, or even in real estate. One of the great problems in bank management is to discover what proportions should exist between the various items of a bank's portfolio. Strictly speaking, a commercial bank which pays its deposits on demand should endeavor to have a certain proportion of its assets in high-grade securities which, if the occasion arises, can be sold quickly for cash. A commercial bank should invest in real estate only in very limited amounts, for obvious reasons. A discussion of some of the important items in a bank's portfolio follows.

Loans and Discounts. Loans and discounts consist chiefly of promissory notes, drafts, and bills of exchange, running for short periods — say, two to four months — and executed by men engaged in active business. As the liabilities of a commercial bank are payable on demand, it cannot safely make loans for long periods, although it may renew short ones from time to time. Promissory notes may be executed by one person, firm, or corporation and offered for discount without other security. Such notes are called single-name paper. A promissory note drawn by A to the order of B, endorsed by the latter and offered for discount, is called double-name paper, since both A and B are held for the payment of it.

Such paper, whether single-name or double-name, may or may not have its origin in a sale of goods on time, for which the seller wishes to obtain the money at once. If it does not take its rise in any business transaction already concluded, it is called accommodation paper. Bankers have no absolutely certain means of knowing whether a note represents a concluded transaction or an intended one. They are justly suspicious of accommodation paper, yet the difference between such paper and other unsecured notes is not so great as it seems. Both are loans on personal security, since in neither case has the banker a lien on any particular goods.

The essential distinction between real and accommodation bills is that one represents *past* and the other *future* transactions. In a real bill goods *have been* purchased which are to meet the bill; in an accommodation bill goods *are to be* purchased which are to meet the bill. But this is no ground for preference of one over the other. A transaction which *has been* done may be just as wild, foolish, and absurd as one that *has to be* done. The intention of engaging in any mercantile transaction is that the result should repay the outlay with profit. There is no other test of its propriety but this, in a mercantile sense. The true objections to accommodation paper are of a different nature. As real bills arise out of the transfers of property, the number of them must be limited in the very nature of things. However bad and worthless they may be individually, they cannot be multiplied beyond a certain extent. There is therefore a limit to the calamities they cause. But accommodation bills are means devised to extract funds from bankers to speculate with, and consequently these speculations may be continued as long as these funds can be extracted.[1]

The Scotch banks have a system of "cash credits" which consist largely of accommodation paper. There are only about a dozen banks in Scotland, with well over a thousand branches, which brings at least one branch within reach of every hamlet in the country. The cash credits are authorizations granted to persons to draw a maximum amount of money from the bank within a given time and returnable within a given time, interest to be paid only for the amount drawn and the time it is kept out. These are loans on personal security, never less than two names being required, generally three or more. A very large percentage of the cash credits of the Scotch banks are made to the agricultural classes, but they are not made on mortgage security and they are not allowed to stagnate. The cash credits are entered as deposits on one side of the bank's ledger, that is, under the head of liabilities. On the other side they appear under the title "bills discounted, cash accounts, and other advances," as resources.

Drafts and Bills of Exchange. Drafts and bills of exchange payable at a future time and purchased by the bank are included under the head of loans and discounts. In this country the two

[1] Macleod, *Theory and Practice of Banking*, Vol. I, p. 308.

terms signify the same thing, except that the word "draft" is applied to instruments payable at some distance from the drawer but within the United States, and the term "bill of exchange" to those payable in foreign countries. They are orders in writing, drawn upon the custodian of funds belonging to the drawer or for the payment of goods sold to the drawee.

A draft or bill of exchange is usually made payable to the order of a third person. If not payable at sight, it must be presented to the drawee as soon as possible, and he must write the word "accepted" on it and sign his name thereunder; otherwise it must be at once protested for nonacceptance. Then two persons are responsible to the holder of it. If the holder gets it discounted at his bank, he must endorse it, and thus he also becomes responsible for it. It may go through several hands, each holder endorsing it before he parts with it. It acquires strength with each transfer, since all the persons who have endorsed it are successively responsible for its payment. These are the most important circulating instruments of modern commerce, since nearly all the wholesale transactions of the world are effected by them, and since they range over the whole world and are not limited, like bank notes, to their parent country.

Bills of exchange are sometimes accompanied by bills of lading, warehouse receipts, stocks or bonds, which are specific titles to property, the bank having a lien on the property until the bill is paid. These are simply a superior kind of bill. They command a lower rate of interest because of their higher security, and in a stringent money market they will command money when other bills are refused. All other discounted bills are loans on personal security.

Use of a Draft in an Actual Transaction. A flour-miller in Buffalo has received an order for a hundred barrels of flour from a baking company in New York. Arrangements were made by correspondence for the use of a draft to finance the transaction, which means that the miller is to draw upon the baking company. The miller receives from the railroad an *order* bill of lading under which the title to the flour can be transferred by endorsing the bill of lading. He draws a draft upon the New York concern, takes the

bill of lading and draft to his bank, sells the draft to the bank, and endorses the bill of lading in the bank's favor. The miller now has his money, it having been placed to his credit in his account, and he is out of the transaction, if everything goes well. The bank temporarily has title to the flour, so that it is protected until it gets its money back.

The bank then sends the draft, accompanied by the bill of lading, to its correspondent bank in New York, with instructions to present it to the baking company for payment. The baking company pays the draft, receives the bill of lading, which is now endorsed to it, presents the bill of lading at the railroad office, and secures the flour. The New York bank deposits the sum received to the credit of the Buffalo bank, which, having paid the Buffalo miller for the draft, is now repaid by having at its command a bank deposit in New York. Instead of buying the draft from the miller the Buffalo bank might have taken it only for collection.

The illustration above describes a transaction in which a *sight* draft is used, that is, one payable on presentation. However, the transaction might have been so arranged that the baking concern did not have to pay the draft upon presentation, but was able to get the flour, sell the product made from it, and then pay the draft. In this case the draft would be drawn payable "at thirty days sight" or "at sixty days sight" or thirty or sixty days after date. The baking company would then "accept" it, that is, write "Accepted" on the face of it over the signature of an officer. Frequently there will also be included a statement as to where (at what bank) the draft will be paid. Upon acceptance the baking company will get the bill of lading and obtain the flour, paying the draft when it comes due. Such a draft is frequently called a *trade acceptance.*

It may be that the baking concern will not obtain the bill of lading upon acceptance of the draft. The bank may continue to hold title to the flour and merely permit the baking company to obtain it as needed. If the baking company had been a merchandising concern which wished to sell the flour, the bank might have permitted it to do so as its *agent,* under what is known as a *trust receipt.*

When the Federal Reserve Act was enacted, it was hoped that

trade acceptances would become very popular and be widely used. Large amounts of goods had been sold on *open-book* (*charge*) *accounts*, that is, on credit, with certain discounts for payment within ten days. It was believed that the trade acceptances would gradually replace the use of open-book accounts, and that we should come more and more to follow the European practice of the greater use of drafts or bills of exchange. Payments would be speeded up, the seller would have a definite asset which he could discount with or sell to his bank, and open-book accounts would be eliminated in favor of a "liquid" asset upon which businessmen could borrow and banks would be eager to lend.

It was most difficult, however, to change the custom of the trade. Many firms refused to permit drafts to be drawn upon them, preferring to buy from someone who would sell to them on credit. Moreover, the trade acceptance was abused. It was frequently drawn after goods had already been sold and the account was long overdue. Many already drawn were frequently renewed, an undesirable practice. In some industries the trade acceptance is widely used; in others, not at all. The result has been disappointing, since in theory the trade acceptance should be a high type of commercial paper.

Unsecured Loans. Many bank loans are made on the personal, unsecured promissory note of the borrower. Before this is done, of course, the bank has acquainted itself with the financial status of the borrower, to see if in addition to the will to pay he has the capacity to pay. It may seem surprising that many such loans are made, especially in good times; but, after all, if the bank is satisfied that the borrower is solvent, able, and trustworthy, there is little to fear from such loans in moderate amounts in ordinary times. If the borrower did not pay and owned property, the bank could always take the property over.

Many firms and corporations borrow in just this manner regularly. For example, a large retail store desires to stock up with women's hats for its Easter trade. It borrows from the bank in order to secure the cash discount for payment for the hats within ten days. When the hats are sold, the money will be available to repay the loan. This is a type of what may be called a *self-*

liquidating loan, generally regarded as an ideal type of short-time loan for a commercial bank. A self-liquidating bank loan is one made to finance a transaction which when completed will furnish the funds with which to repay the loan.

Frequently, before unsecured bank loans are made, the bank will carefully examine the balance sheet (statement of assets and liabilities) of the borrower and his income account (profit-and-loss statement) as well. The balance sheet shows the condition at a given point of time; the income account, a history of financial results over a given period. The analysis of such statements is a task requiring high intelligence and skill. For example, are all the assets listed properly valued? Is the value of the inventory (stocks of commodities or raw materials) correctly stated? Can the accounts receivable be collected?

Banks sometimes place great stress upon the *current ratio*, the proportion of current (quick) assets to current (quick) liabilities. The difference between the two is known as *working capital*. Could the borrower pay off his current liabilities (those due shortly in the future) and still have enough current assets, so that cash could be realized on them in a similar future period, to repay the bank loan? It is frequently stated that banks prefer current assets to be at least twice the amount of current liabilities. This would give a current ratio of 2 to 1. But there is no fixed current ratio which is general for all businesses. It is the type of business that determines what ratio is a sound one. This point deserves great emphasis, and banks should know that a current ratio of 2 to 1 would be a safe one for one business but unsafe for another.

Many other questions could be raised. How much have the owners themselves invested in the business? Is it enough to protect the bank in case of difficulty? If it is a manufacturing concern, what kind of product does it make, a necessity or a luxury? Has the borrower loans outstanding at other banks? Is he accustomed to speculate? Does he carry adequate life insurance? What is his general reputation? Is the business growing or declining? What is the purpose of the loan? All these and many more questions must be answered before an unsecured loan can be considered sound.

Sometimes an unsecured promissory note is endorsed by another person. That means that the other person writes his name on the back of it, thereby agreeing to pay the note himself if the actual borrower does not do so. This is sometimes a dangerous practice for the endorser. In many communities businessmen endorse freely for one another in this manner. A man may be a borrower one moment, and an endorser the next. As a result, a bank must watch this situation carefully or it may find that the combined obligations of several men may be so large that notes bearing their names are not first-class risks.

Secured Loans. As a rule, banks prefer some type of collateral when it is available. The reason for this is that, if the borrower does not pay the note, the collateral securing the note may be seized and sold. Frequently collateral loans are not of a self-liquidating type; that is, they are not made for a purpose which when accomplished will place the borrower in funds. Some such loans are secured by bonds or stocks as collateral, others are secured by commodities, and still others may be secured by real estate. Secured loans have been made on jewelry, chattel mortgages on household goods, crops, and livestock — in fact, on anything which has a market.

Some of these loans have a definite date of maturity; others are payable on demand. Demand loans are common when the collateral is made up of stocks or bonds, and have been known to run for years, the borrower merely paying the interest periodically. In some cases where banks prefer to have the borrower pay off all his loans at least once a year, he will do so, but the bank will shortly make new loans. A loan of this type is different in one respect from a discount. In discounting, the interest is subtracted from the loan when it is made. In what are frequently called straight loans the borrower receives the full amount at once and pays the interest when it becomes due.

While discounting self-liquidating commercial paper may be the ideal type of business for a commercial bank, secured loans have become of great importance in recent years. So far as safety goes, many secured loans leave nothing to be desired. But the purpose for which the funds are used may lead to the use of bank

credit for undesirable speculation. The rapid growth of loans backed by stock-market collateral from 1925 to 1930 is a case in point. The granting of large loans on commodities placed in warehouses (and secured by warehouse receipts) in 1919 and 1920 is another. The recent history of real-estate speculation in Detroit and Cleveland, financed partly by banks, is still another. In some cities, in 1930, over a third of the bank's earning assets were in urban-real-estate loans, a serious mistake. The purpose for which the loan is used must therefore be regarded as of supreme importance.

Most authorities feel that the banks should not have gone in so heavily for loans on stock-market collateral. The banks, however, claim that they were finding it difficult to secure enough good commercial paper to discount to use up their lendable funds. They assert that the growth of time deposits in their savings departments, as well as the possession of an excess of other funds, and the disappearance of commercial borrowers, who were financing themselves largely by sales of stock, drove them into a larger use of other collateral, such as real estate, as a basis for loans. Bankers frequently forget, however, that this process in itself leads to the creation of new deposits, which results in a rapid expansion of bank credit. Such loans bring about an increase in the estimated value of assets throughout the economic system, and upon this increased valuation banks are likely to lend still more. In other words, banks increase their loans upon collateral whose market value has already been increased by previous loans, and by further lending they increase its value as collateral still more. When the reverse process happens in periods of crisis, bank contraction can destroy this rapidly created value quickly and force still further liquidation, bankruptcies, and bank failures. Adequately to control banking policy in this respect is one of the great economic problems of today.

Many investment houses borrow upon securities temporarily when a new issue is being floated. Frequently the investment house will buy up a new issue, securing the funds through a bank loan and pledging the new issue itself as collateral. When the securities are sold, they may be withdrawn, and other securities

substituted or a part of the loan paid off. Much of this type of business is sound and legitimate, but when carried to excess fosters the issuance of new securities which are not sound investments. In their eager search for profits many banks have been more zealous than wise in this respect.

Loans on warehouse receipts are sound if the commodity is stored temporarily only, while it is being marketed. But to lend on warehouse receipts to speculators who are holding commodities only because they hope to make profits from a rise in their prices will, if carried to excess, fan the speculative flames unduly. When difficulties occur or the prices show signs of dropping, banks are in the habit of calling these loans suddenly. A speculator must dump his commodity on the market for what he can get in order to pay off his loan. In the period of lending, commodity prices may have been forced up greatly, causing businessmen to buy stocks of raw materials for their inventories at these high prices, only to have the dumping on the market by the speculators force prices down, lower the value of inventories, and cause great loss. Possibly the inventories themselves were accumulated on bank credit. In such a case a businessman may have difficulty in repaying a loan if a general fall in prices, profits, and incomes is engendered.

Anyone who has personally experienced a real-estate boom, such as the Florida episode from 1924 to 1926, must realize how necessary it is to keep bank credit out of such frenzies. A small proportion of real-estate loans in a commercial bank's portfolio is not dangerous, but to place out large amounts on such collateral is nothing short of calamitous. The record of such loans during all our history, especially during 1918, 1919, and 1920 in the Middle West, and the years from 1925 to 1930 and the ensuing depression in the country as a whole, is such that no further elucidation is needed.

What we have said applies primarily to commercial banks. Savings banks may properly lend large sums on good real-estate mortgages, since their deposits are not payable on demand. Great caution must, however, still be exercised in order to prevent loans in excess of a reasonable proportion of the estimated value of the real estate. Complications ensue when a commercial bank has a

savings department whose assets are mingled with the assets of the commercial division. While the funds from savings deposits may be placed in long-time loans of a different type from those granted by the commercial department, difficulty has frequently arisen in the case of a run on the bank. When this occurs, instead of continuing to pay out its savings deposits on demand, as is done ordinarily, the bank is permitted to require its savings depositors to give thirty days' notice. This is called "freezing" the savings accounts. The bank, however, continuing to pay out its demand deposits, may eventually be forced to close. In such a case the savings depositors may have withdrawn little from their accounts, while the demand depositors may have secured a large proportion of theirs before the bank closed. So many incidents of this kind occurred during the great wave of bank failures between 1925 and 1933 that many proposals have been made for the greater protection of depositors in the savings department of a commercial bank. It is argued that such banks should be forced to live up to exactly the same requirements as govern banks of a purely savings type. The assets behind savings deposits should therefore be segregated and not mingled with the assets of the commercial division, so that savings depositors should not lose proportionately more than demand depositors. There is much to be said in favor of such an amendment to our banking laws.

Other Investments. It has been customary to speak of the cash on hand and in other banks as a *primary* reserve, because it can be quickly used. Government obligations and certain other very high-grade bonds are designated as *secondary* reserves, because they can be turned into cash quickly in an emergency. The management of that part of a bank's portfolio which consists of such securities is a most difficult task. There is danger that by such investments banks may finance a large proportion of the *fixed* rather than the *working* capital requirements of industry. This is unavoidable to some degree, and it is proper that savings deposits should be used for such a purpose. The danger comes when large amounts of the assets behind demand deposits are in this form.

Where a ready market exists for these securities, cash can be received for them quickly. But this is not the only consideration.

If bank credit finances the rapid expansion of a country's fixed capital in the form of producers' goods, difficulties will subsequently be encountered. Some authorities assert that *liquidity* of assets should be the chief test, and that at times high-grade bonds have been more liquid than commercial paper, because bonds can be sold at once, while commercial paper cannot be realized until it matures, unless it can be sold or rediscounted elsewhere. The fact remains, however, that so long as a banking system confines itself largely to the short-time financing of business, the chance of catastrophes is greatly lessened, for it will not then become "frozen" with paper of long-time maturities. It was the widespread departure from this practice during the postwar years that was largely responsible for the collapse of our banking system early in 1933.

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CHAPTER XVI

THE BANK STATEMENT

A bank statement is an accounting, either voluntary or compulsory, rendered by a bank's officers to its shareholders, which is published for general information. The bank as an institution is liable for all balances which have accrued against it in the course of business, and it is also liable to the stockholders for the capital and for all profits which have been left in the business, whether carried to the surplus fund or not. Thus there are two kinds of liabilities, although they are generally put under a single head. All claims against assets which are not held by creditors naturally belong to the owners. Under the modern form of the balance sheet, however, it is difficult to determine whether some of the items which appear under the general heading of liabilities are creditors' claims or shareholders' claims. Take, for example, the reserve account for contingencies. If no contingencies occur, then the amount set aside for this purpose reverts to the owners; but if contingencies do occur, then the amount represented by this account is lost to the owners.

Since the primary purpose of this chapter is to explain the meaning and significance of the items appearing on the average commercial-bank statement, an actual statement of one of the largest New York City national banks, as of October 17, 1934, will be reproduced, and each item will be discussed in the order in which it appears. Although there are twenty-five items appearing on this balance sheet, there are numerous others which have been consolidated under the general heading of "Other Assets" and "Other Liabilities." For example, this is a national bank, and yet there is no separate liability item showing the volume of national-bank notes which this bank, no doubt, has issued. A statement of a state bank will be given at the close of the chapter.

Resources

1. Cash and Due from Banks	$362,470,689.16
2. United States Government Obligations, direct and fully guaranteed	488,936,934.08
3. State and Municipal Securities maturing within two years	67,699,693.83
4. Other State and Municipal Securities	44,859,840.36
5. Other Securities maturing within two years	17,911,892.58
6. Other Bonds and Securities	87,644,389.52
7. Federal Reserve Bank Stock	8,160,000.00
8. Loans, Discounts, and Bankers' Acceptances	654,787,080.57
9. Banking Houses	40,232,811.24
10. Other Real Estate	1,562,357.34
11. Mortgages	4,178,020.72
12. Customers' Acceptance Liability	39,769,296.57
13. Other Assets	8,448,344.81
	$1,826,661,350.78

Liabilities

14. Capital — Preferred	$50,000,000.00
15. Capital — Common	100,270,000.00
16. Surplus	50,000,000.00
17. Undivided Profits	16,399,877.32
18. Reserve for Contingencies	17,220,330.50
19. Reserve for Taxes, Interest, etc.	1,428,109.69
20. Deposits	1,496,613,203.55
21. Certified and Cashier's Checks	44,181,060.60
22. Acceptances Outstanding	42,073,728.03
23. Items in Transit with Branches	1,706,006.56
24. Liability as Endorser on Acceptances and Foreign Bills	497,178.85
25. Other Liabilities	6,271,855.68
	$1,826,661,350.78

United States government and other securities carried at $153,640,812.87 are pledged to secure public and trust deposits and for other purposes required by law.

Resources, or Assets. *1. Cash and Due from Banks.* This item, of approximately $362,000,000, is made up of three so-called cash items. *First,* there is the amount of actual cash in the form

of coin and paper money which is being held in the vaults of the bank. This is sometimes referred to as "till money" because it no longer may be considered as part of the legal reserve for a bank which is a member of the Federal Reserve System. The question of the amount of cash which a bank should hold is merely one of keeping enough to meet the demands for cash by its depositors. Conservative banks will usually keep a somewhat larger amount than the average cash drain. Past experience has shown that near the close of each week and during certain periods of the year, such as Easter, the Fourth of July, Thanksgiving, and Christmas, the cash withdrawals from the banks always exceed the cash deposits. *Second,* every member bank must keep with the Federal reserve bank of its district a deposit equal to a certain percentage of its own deposits, in this case 13 per cent of the demand deposits and 3 per cent of the time deposits. This is the member bank's legal reserve, and no interest is paid on it by the Federal reserve bank. *Third,* almost every bank keeps accounts in other banks, principally for the purpose of making remittances to those centers where it carries accounts, and likewise for the purpose of maintaining a continuous correspondent relationship with other banks. Banks outside the larger centers usually have in the larger city banks deposits which exceed the deposits of city banks carried in the smaller country banks. This particular bank in New York City has, no doubt, fewer deposits in other banks than other banks have in it. Technically the deposits which this bank keeps in other banks are known as "due from" items, while the deposits of other banks kept in it are "due to" items. For all the banks of the country, of course, the "due from" items must equal the "due to" items, but the banks in the larger cities usually have larger "due to" items than "due from" items. Exchanges for the clearinghouse representing checks on other institutions which will be settled through the clearinghouse the following morning are likewise included in the "Cash and Due from Banks" item. The next five items represent the principal investments of this bank.

2. United States Government Obligations, Direct and fully Guaranteed. By far the most important item in the investments of most commercial banks at the present time is their holding of

United States government obligations. These obligations include long-term government bonds and short-term Treasury notes and certificates.

3. State and Municipal Securities Maturing within Two Years; 4. Other State and Municipal Securities. Items 3 and 4 are the same type of security; but, since the maturity of one group is shorter than that of the other, a division has been made. There would be no particular advantage in having state and municipal securities that have a ready market mature within two years.

5. Other Securities Maturing within Two Years; 6. Other Bonds and Securities. A similar division is made between items 5 and 6, which represent other bonds and securities, mostly bonds, because national banks are not permitted to purchase stocks except under very restricted circumstances. The investments of this bank total slightly more than $700,000,000, of which more than $500,000,000, or approximately 70 per cent, are United States government securities and approximately $113,000,000 are state and municipal securities; this leaves only a small percentage of investments which do not fall within these two classes.

7. Federal Reserve Bank Stock. Federal reserve bank stock represents the subscription which this bank has made to the Federal reserve bank of its district. Every bank which is a member of the Federal Reserve System must subscribe to the capital stock of the Federal reserve bank of its district an amount equal to 6 per cent of its paid-in capital and surplus. Thus far only half of the subscription, or 3 per cent of the bank's capital and surplus, has been called. This stock of the Federal reserve bank represents the first claim against the earnings of the reserve bank, and the dividend rate is 6 per cent. This dividend does not have to be paid each year, but thus far every reserve bank has done so, although in some cases a reserve bank has had to draw upon previously created surpluses in order to do so. In some respects this Federal reserve bank stock may be classified as an investment; but as long as this bank continues to be a member of the Federal Reserve System, which it must be if it is to operate as a national bank, then this stock may not be sold. It represents therefore an investment of a restricted nature. This bank and all others holding Federal

reserve bank stock would, no doubt, be very much pleased if their other investments were paying as high a rate of return and were as free from risk as this one.

Three per cent of the capital and surplus of this bank will not give the amount of Federal reserve bank stock which it is holding ($200,270,000.00, which includes the preferred stock, multiplied by .03 equals $6,008,100.00). This discrepancy is due to the regulation which does not make it mandatory for a member bank to reduce its holdings of Federal reserve bank stock as a result of surplus reduction. It must, however, surrender a proportionate amount of this stock when it reduces its capital. The surplus of this bank, and also its capital, were reduced at the time it sold preferred stock to the Reconstruction Finance Corporation.

8. Loans, Discounts, and Bankers' Acceptances. The principal single earning asset item of almost every commercial bank, if the bank has been operating for a number of years, is loans and discounts. This is true because the primary business of commercial banks is the granting of loans, and hence the creation of deposits.

Loans and discounts consist chiefly of promissory notes, drafts, and bills of exchange, running for short periods, usually from one to three months, and executed by men engaged in active business. Inasmuch as the liabilities of a commercial bank are payable on demand, it cannot safely make loans for long periods, although it may renew short-term loans from time to time. Promissory notes may be executed by a person, firm, or corporation and offered for discount without any other security. Such notes are known as single-name paper. A promissory note drawn by A to the order of B, endorsed by the latter, and offered for discount is called double-name paper, since both A and B are jointly and severally liable for its payment.

The usual practice when the loans of commercial banks are reported is to divide them into two principal groups: first, loans on security or collateral; and second, all other loans.[1] As of

[1] It is not possible to secure up-to-the-minute figures for all the banks in the United States, or even for all the member banks, but it is possible to secure weekly figures for the member banks in ninety-one of the principal cities of the United States. These banks are known as the reporting member

December 1, 1934, reporting member banks had total loans of $7,745,000,000, divided as follows:

Loans on security	$3,115,000,000
Acceptances and commercial paper	444,000,000
Loans on real estate	979,000,000
All other loans	3,207,000,000

It is common practice for the item "All other loans" to be referred to as commercial loans. It does not necessarily follow that unsecured loans are more commercial in nature than loans on securities; but before a commercial bank is willing to advance funds on the basis of unsecured promissory notes, it wants to feel that the project to be undertaken by the borrower is self-liquidating. The commercial banker, however, may be less cautious about the use to which the borrower may put the funds which he has obtained from the bank on the basis of collateral of which the market price is at least equal to the face amount of the loan. Students of business and finance, therefore, watch the movement of "All other loans" very carefully, especially during such periods as 1933 and 1934, when loan expansion on the part of commercial banks seemed so vital to business recovery.

Before granting a loan a bank usually considers what has been called the "three C's" of the borrower: his Capital, his Capacity, and his Character. Bankers have frequently stated that they considered character more important than a borrower's capital or his ability to use effectively the money which he borrows. A private banker was once quoted as saying that he would lend $1,000,000 to a single individual on the security of his character; but critics have hastened to point out that there is no record of his having made such a loan. During recent years a fourth C has been added, the amount of Collateral which the borrower can

banks. As of the close of 1933, the total loans and investments of reporting member banks amounted to approximately $17,000,000,000, while all member banks' loans and investments were approximately $25,000,000,000, and the loans and investments of all the banks in the United States, including both the member and the nonmember banks, but excluding mutual savings banks, were approximately $30,000,000,000. The figures for reporting member banks are therefore inclusive enough to show general trends, and it is possible to secure figures on them about a week after the date which they represent.

furnish. The most astute loan officer usually does not have to say "No" to prospective borrowers whom he does not consider good risks; rather he sets up such requirements as are necessary for the protection of the bank, and then allows the customer to discover for himself that he cannot fulfill these requirements.

Item 8 of this national-bank statement includes bankers' acceptances. Acceptances are one of the best types of short-term paper, and for this reason the rates on them are usually lower than the rates on loans. Losses on acceptances during the depression period were negligible. In addition the Federal reserve banks stand ready to purchase bankers' acceptances at any time in unlimited volumes and usually at a rate below their rediscount rates, so that the liquidity of acceptances is assured.

If aggregate investments are considered, this bank has a slightly smaller volume of loans than investments, $655,000,000 of loans and discounts and over $700,000,000 of investments. Four and a half years previous to the date of this statement the loans and discounts of this bank were almost three times as large as its investments.

Although the shift which has taken place in the proportion of loans and investments of this bank during the last four and a half years is somewhat more pronounced than that for all the banks of the country, it illustrates a tendency which is true for all banks. The volume of loans and the volume of investments (in billions of dollars) of reporting member banks as of December of each year since 1921 and the percentage which the loans were of the total loans and investments are given in the table at the top of page 356.

Beginning in 1930 the percentage that loans bore to total loans and investments has declined very rapidly, until in November, 1934, only 43 per cent of all loans and investments of the reporting member banks was made up of loans as against 77 per cent for 1921. There was little change in this percentage, however, before 1930.

As has previously been stated, loans are made up principally of security loans and "all other," or commercial, loans. The percentage which "all other" loans of the reporting member banks was of total loans as of December of each year since 1921 is given

Year	Total Loans and Investments	Total Loans and Discounts	Total Investments	Percentage Loans of Total Loans and Investments
1921	14.76	11.31	3.446	76.6
1922	15.79	11.25	4.539	71.2
1923	16.38	11.93	4.458	72.8
1924	18.53	12.91	5.612	69.7
1925	19.40	14.01	5.393	72.2
1926	19.90	14.38	5.521	72.3
1927	21.25	15.35	5.900	72.2
1928	22.19	16.29	5.899	73.4
1929	23.14	17.54	5.604	75.8
1930	23.32	16.52	6.800	70.8
1931	20.86	13.35	7.506	64.0
1932	16.82	8.912	7.907	53.0
1933	16.62	8.457	8.163	50.9
1934 (Nov.)	17.76	7.713	10.049	43.4

in the following table (the loan and discount figures represent billions of dollars):

Year	Total Loans and Discounts	All Other Loans and Discounts	Percentage Other Loans of Total Loans
1921	11.31	7.708	68.2
1922	11.25	7.233	64.3
1923	11.93	7.940	66.6
1924	12.91	8.194	63.5
1925	14.01	8.423	60.1
1926	14.38	8.810	61.3
1927	15.35	8.870	57.8
1928	16.29	9.150	56.2
1929	17.54	9.649	55.0
1930	16.52	8.747	52.9
1931	13.35	7.543	56.5
1932	8.912	5.119	57.4
1933	8.457	4.862	57.5
1934 (Nov.)	7.713	4.705	61.0

Except for the years 1929 and 1930 the percentage which commercial loans were of the total loans fluctuated only between fairly

narrow limits, in spite of the fact that total loans declined approximately 56 per cent between December, 1929, and November, 1934.

9. Banking Houses. The item "Banking Houses" is self-explanatory. It includes not only the home-office building of this bank in New York City but also a number of branch-office buildings.

10. Other Real Estate. National banks are not allowed to own real estate except for their own use, but they may take such property for unpaid loans previously made in good faith. The item of approximately $1,500,000 appearing on this balance sheet represents real estate which has been acquired through foreclosures of mortgages or liquidation of loans. Even real estate taken over in this manner must be disposed of within a period of five years.

11. Mortgages. Between 1863 and 1913 the national banks of the United States were not allowed to grant loans on real estate. The Federal Reserve Act provided for the granting of loans on real estate under very limited terms, and the McFadden-Pepper Act of 1927 liberalized these provisions.[1] In comparison with its total loans this national bank has made a negligible volume of loans on real estate.

12. Customer's Acceptance Liability. When a bank accepts a draft drawn upon it in connection with a commercial letter of credit or otherwise, it assumes a liability to honor the acceptance at maturity. But, in turn, the bank has the obligation, either secured or unsecured, of its customer to provide the funds at maturity. These obligations of the bank's customers appear on the asset side of the balance sheet under the heading "Customers' Acceptance Liability." Here again is an item which has appeared on the balance sheet of national banks only since 1913. Before that date the national banks were not allowed to act as acceptors. The customer's liability under acceptances may or may not be secured. When a commercial letter of credit is granted, the trust receipt is frequently used, which in general is a legal instrument signed by the bank's customer; in this way the customer becomes the agent of the bank in the sale of the goods which were

[1] The relevant provisions of the McFadden-Pepper Act are given in Chapter XXX.

purchased under the acceptance agreement. The bank is therefore the owner of the goods, and, as the customer sells them, he must credit all sums received to the bank, which in turn will use them to pay the draft at maturity. Any type of collateral which may be used for securing a bank loan may likewise be used for security pledged to satisfy the customer's liability to the bank under acceptances.

13. Other Assets. "Other Assets" no doubt includes accrued interest on customers' loans, and this may be a relatively important asset item for banks. Accrued interest is an item which arises when the straight interest method rather than the discount method is used by the bank in granting loans to its customers. Assume, for example, that Mr. A borrowed $100 from this bank, on April 17, 1934, for one year, agreeing to pay back $106 on April 17, 1935. This balance sheet gives the condition of the bank as of October 17, 1934. Six months have elapsed since this loan was granted, and $3 of the $6 interest has been earned. Therefore, in our example, the bank would have in its October statement an accrued-interest-receivable item of $3. Prepayments, which are similar items, may likewise be included in this group of miscellaneous assets, and also items in transit, sometimes referred to as uncollected items.

Liabilities. By far the most important single liability item is deposits. In the case of the balance sheet shown at the beginning of this chapter deposits constitute over 80 per cent of the total liabilities. Next to deposits come a number of items which represent claims of the owners. In a general sense these owners' equities — proprietorship, or net-worth, items — are liabilities, because they represent the difference between the total assets and the claims of the creditors. In more technical language proprietorship items are frequently not referred to as liabilities but merely as the claims of the owners. In the modern balance sheet it is extremely difficult to differentiate between items which represent claims of the owners and items which represent claims of creditors. Capital stock (common), surplus, and undivided profits are clearly claims of owners, but all reserve items are much more difficult to classify, and likewise the preferred-capital-stock item.

Each item on the liability side of the balance sheet of the national bank whose statement is given at the beginning of this chapter will be discussed separately and in the order in which it appears.

14. Capital — Preferred Stock. Before the formation of the Reconstruction Finance Corporation, in January, 1932, national banks were allowed to issue only one kind of stock, and it was not possible for them to issue any bonds. When provision was made, however, for loans to be made to the banks by the Reconstruction Finance Corporation, it was provided that the claims of the Reconstruction Finance Corporation should come ahead of those of the owners of the bank. The amount lent by the Reconstruction Finance Corporation to the banks is usually referred to as preferred stock, notes, or capital debentures. In our particular case the bank has received a loan of $50,000,000 from the Reconstruction Finance Corporation. This claim against the bank is second to depositors' claims, but comes ahead of the claims of the owners.

There has been a great deal of discussion as to whether this so-called preferred stock should be included as a part of the bank's capital. For certain technical reasons it is necessary to reach a decision as to whether or not the loans made by the Reconstruction Finance Corporation constitute a part of the bank's capital. National banks, for example, are not allowed to lend more than 10 per cent of their capital and surplus to any one borrower, and they are required to subscribe to the capital stock of the Federal reserve bank of their district an amount equal to a certain percentage of their capital and surplus. For these and other reasons it is necessary to decide whether or not preferred stock or capital debentures should be considered as part of the bank's capital.

In the November, 1934, issue of the *Federal Reserve Bulletin* this question is settled for state member banks in the following manner:

In a ruling issued under date of November 8, 1933, the Board expressed the belief that it was the purpose of the Congress in authorizing the purchase by the Reconstruction Finance Corporation of debentures and capital notes from State banks to provide capital funds for such banks, and stated that it would consider the proceeds of such capital

notes or debentures as capital funds of State banks and as part of the unimpaired capital required of such banks for admission of such banks to membership in the Federal Reserve System. By the act of June 16, 1934, section 9 of the Federal Reserve Act was amended to provide that, for the purposes of membership of any State bank, the terms capital and capital stock shall include the amount of outstanding capital notes and debentures legally issued by the applying bank and purchased by the Reconstruction Finance Corporation. In view of its previous ruling and of the subsequent amendment to said section 9, the Board is of the opinion that capital notes and debentures legally issued by State member banks and purchased by the Reconstruction Finance Corporation should be considered as capital or capital stock in determining limitations under the aforesaid sections of the Federal Reserve Act and under section 210 of the Agricultural Credits Act of 1923. However, since the above-mentioned amendment to section 9 of the Federal Reserve Act does not refer to capital notes and debentures sold to others than the Reconstruction Finance Corporation, it is the view of the Board that any notes or debentures not sold to the Reconstruction Finance Corporation may not be included in determining the limitations under said provisions of law.

All loans made by the Reconstruction Finance Corporation to national banks are carried on the balance sheets as preferred stock. This preferred stock does not incur double liability. The law of March 24, 1933, states that the Reconstruction Finance Corporation may not purchase preferred stock of state banks which do carry double liability, but it may purchase capital notes and debentures of such banks. The Emergency Banking Act of March, 1933, states that the word "capital" as used in the National Banking Act shall include both unimpaired common and preferred stock. The preferred stock of national banks and the capital debentures and notes of state banks are both, therefore, considered as part of the bank's capital.

From a nontechnical point of view it is difficult to decide whether or not the capital notes and debentures of the banks should be considered as a part of their capital. In the nonfinancial corporation, bonds are not considered as part of the owners' capital, and it may be contended that the capital notes are in the same relative position for the banks as the bonds are for the corporation.

This does not seem to be exactly the case, however, since many bonds have first liens against specific parts of the corporate property, while, in the case of the preferred stock and capital debentures held by the Reconstruction Finance Corporation, deposits, which usually amount to about four fifths of the total assets of a commercial bank, must be paid in full before the holders of preferred stock and capital debentures are allowed any share in the assets.

15. Capital — Common Stock. The stock represented by the $100,270,000 account under the heading "Capital — Common" is the only kind of stock which national banks were allowed to issue before 1932. In the Bank Act of 1933 it was provided that double liability for national banks should no longer apply to stock issued by banks subsequent to the passage of the law. Common stock in existence previous to June 16, 1933, however, continues to bear double liability. This provision was the result of a somewhat unsuccessful experience by the closed national banks of this country in collecting amounts due under the double-liability feature. Only 30 per cent of the assessments against all stockholders of national banks which had gone into receivership between 1863 and the close of 1932 was collected.

16. Surplus. The surplus account usually represents the claim of the owners against the profits of the bank which have been reinvested in the business. In the case of the balance sheet of the national bank under survey, the surplus amounts to approximately half as much as the common stock, and is equal to the amount of preferred stock. It is not at all unusual, however, for the surplus account of banks to be larger than the capital-stock account. This situation is peculiar only to banks, and not to other types of corporations. Capital stock and capital debentures of all member banks as of the close of 1933 were $2,400,000,000, while surplus and undivided profits were approximately $2,100,000,000. As of December 31, 1932, however, the surplus and undivided-profits accounts of member banks exceeded the capital-stock account.

One of the reasons for the large surplus accounts of banks would seem to be that these accounts are a way of increasing capitalization without incurring the double liability which goes with expan-

sion by means of the issuance of common stock. That is to say, the owners of a bank may allow their profits to remain in the business, and thereby increase their claims against the bank without incurring any additional liability. This same reason, no doubt, accounts for the relatively high prices of bank stocks, especially of those of banks in our larger cities. At one time, in 1929, the stock of one of the larger New York City banks sold for more than $8000 a share, and there were several cases of New York City banks' stocks selling for more than $1000 a share, par being $100.

The National Banking Act requires that the surplus of a national bank must be equal to at least 20 per cent of its capital before it may disburse dividends to its stockholders. For this reason a number of national banks have begun operations with a surplus. This may be done by selling the stock at a premium. For example, if the stock has a par value of $100, the bank may sell it for $120, and thereby create a surplus equal to 20 per cent of its capital. This is one of the outstanding cases of a surplus which does not arise through reinvested earnings.

17. Undivided Profits. The claim of the owners which is represented by the undivided-profits account is very similar to that of the owners' claim represented by the surplus account. The principal difference is that once the earnings have been transferred to surplus, there would seem to be a definite expectation of leaving them in the business. The undivided-profits account, however, as the name implies, is a reserve which may be used at a later date for the payment of dividends to owners during periods when the dividends have not been fully earned. In other words, undivided profits may be later divided. Both the surplus and the undivided-profits accounts, however, represent claims of owners which must necessarily be reduced in case of a shrinkage of assets, if there are no other special reserve accounts to take care of the shrinkage.

18. Reserve for Contingencies. The total resources of the bank under survey are approximately $1,827,000,000. There is a liability account called "Reserve for Contingencies" of approximately $17,000,000. The principal purpose of this liability account is to allow for a shrinkage — perhaps it should be said, an expected shrinkage — in some of the asset accounts. Suppose, for example,

that among the loans and discounts are some which may be considered doubtful. Some investments may likewise be in danger of defaulting. This bank has made provision to take care of assets up to $17,000,000 which it may later have to write off the books. So long as the shrinkage does not take place in the assets for which this account is primarily set up, then it may be said that the reserve for contingencies is a claim of the owners. If a bank, therefore, is ultraconservative, and sets up a larger contingency account than is later needed, then at least part of the reserve for contingencies is clearly a proprietorship account.

19. Reserve for Taxes, Interest, etc. This account, of approximately $1,500,000, set aside for future payments on taxes, interest, etc., can be more definitely estimated than the reserve needed for contingencies. A bank knows fairly accurately the amount of taxes and interest which it will be called upon to pay in the future. It can therefore make provision for the payment of these obligations in advance, at least in the sense of showing on the balance sheet that these expected obligations must be segregated from the proprietorship items. It would seem therefore that this type of account is usually not a part of the owners' claims.

In any business organization one of the most important considerations is the amount of funds which the owners should furnish in order adequately to take care of a given volume of business. The fact that the owners usually do not furnish all the funds necessary to the conduct of the business has given rise to the expression "trading on the equity." During the depression a great deal was said about the equities being too "thin" in organizations which later were forced to the wall, but very little has been suggested in the way of banking reform which would increase the amount of the owners' equities in banks.

In the case of the national bank under consideration the owners have claims (including preferred stock, but excluding the reserve accounts) of approximately $217,000,000, while total assets equal approximately $1,827,000,000. The owners have therefore a claim against approximately 12 per cent of the assets. In most other forms of corporate organization this percentage

runs much higher. A rough summary of the equity percentages in various types of business follows [1]:

Type of Company	Equity Percentage
Banks	13
Industrials	83
Railroads	45
Public Utilities	
Telephone	71
Gas	50
Electric	45

The importance of this small equity percentage for banks would seem to be that, since loans and investments make up about 80 per cent of a commercial bank's assets, a shrinkage of about 17 per cent in loans and investments would wipe out all the claims of the owners. Even before all the proprietorship accounts were wiped out, certain difficulties would arise as soon as the bank's capital stock was impaired. Is it sound, then, for the commercial banking business to be built on the basis that serious difficulty will arise whenever the principal assets shrink 17 per cent? The experiences of the past few years seem to indicate that it is necessary for banks to have a thicker equity to take care of asset shrinkage during depression periods. This shrinkage may have been abnormally great during recent years, but it is abnormal conditions for which banks should prepare. Even government bonds declined approximately 12 per cent during the latter half of 1931, and domestic corporation bonds depreciated some 25 per cent. We now have for national banks minimum capital requirements, but would it not be more helpful to have a minimum ratio between the volume of deposits and the amounts represented by the proprietorship accounts? [2]

[1] "Owners' Equity in Banks and in Other Corporations," by Lewis A. Froman, *Journal of Business of the University of Chicago*, January, 1934. The dates of the equity percentages vary from 1927 to 1931. This article gives a much more complete discussion of the subject than is included here.

[2] Dean Chester A. Phillips of the University of Iowa suggested in a paper read before the American Economic Association meeting in Chicago in December, 1934, that the deposits of banks having a high ratio between proprietorship accounts and deposits should be insured to a greater extent than the deposits of banks with lower ratios.

20. Deposits. There are several conventional ways of classifying the deposits of a commercial bank. First there are time and demand deposits. A demand deposit is usually defined as one which may be withdrawn upon demand, while a time deposit may be defined as one that legally gives the bank the right to require a number of days notice, usually thirty, before a depositor may make withdrawals from his account. Most banks, however, have not resorted to their legal right of requiring notice before time deposits may be withdrawn, because, if a bank did, suspicion would probably immediately fall upon it, and all its depositors would give the legally required notice. For all practical purposes, therefore, time deposits may be withdrawn as readily as demand deposits in ordinary times.

There is a decided difference in the reserve requirements which are necessary for demand deposits as against those required for time deposits. Member banks must keep 7, 10, or 13 per cent reserve, depending upon the size of the city in which they are located, against all demand deposits, but only 3 per cent against all time deposits. This provision, no doubt, has been one of the leading factors contributing to the shift during the last decade in the proportion of time and demand deposits.

As of the close of 1923 the member banks of the United States held $23,815,000,000 in deposits, of which approximately 64 per cent were demand deposits.[1] As of the close of 1932 member banks had deposits of $23,943,000,000, of which 56 per cent were demand deposits. The table on the following page gives the year-by-year percentage which demand deposits were of total deposits. The falling off of time deposits during 1933 while demand deposits remained about stationary causes the percentage of demand deposits to regain a portion of the ground which it had steadily lost since 1923.

Demand deposits may be subdivided into primary and derivative deposits. A primary deposit is one which arises as a result

[1] This total deposit figure and the total deposit figures of the following table do not include United States deposits, or certified and cashiers' or treasurers' checks outstanding or due to Federal reserve banks or due to banks, bankers, or trust companies.

Year (as of December 31)	Percentage
1923	63.67
1924	62.98
1925	62.81
1926	60.65
1927	58.73
1928	58.42
1929	58.76
1930	56.36
1931	56.92
1932	55.93
1933	59.56

of a customer's depositing in his bank cash or checks drawn upon other banks. Derivative deposits are those which arise as the result of loans made to customers. The second group is, of course, a great deal more important than the first; for, if deposits resulted only from the placing of cash funds with the bank for safe keeping, then the total volume of deposits would be very much less than is the case at the present time. There was a total of approximately $5,500,000,000 of money in circulation at the close of 1934, while commercial banks had deposits of approximately $38,000,000,000. Banks hold only a portion of the money in circulation, probably less than half; therefore their deposits are many times greater than their cash holdings.

Since the banking crisis of 1933 it has been suggested that commercial banks be required to keep a 100 per cent cash reserve behind deposits. Unless more paper money were issued, the immediate effect of this proposal would be to wipe out about 95 per cent of the present volume of deposits. A variation of this proposal would require a 100 per cent reserve against deposits, but would allow the reserve to take the form of government bonds; still another variation suggests that the government issue greenbacks to the banks in exchange for their present assets. Derivative deposits are made possible because all depositors usually do not ask for the total of their accounts in cash at the same time. This system is not unique in the United States; it is used to a greater or less extent in almost every leading country in the world.

21. Certified and Cashier's Checks. The bank under review here had, as of October 17, 1934, approximately $44,000,000 of certified and cashier's checks outstanding. Any large bank, especially one doing an international business, is called upon to furnish funds to persons who wish to make purchases in other centers. If, for example, an inhabitant of New York City wishes to spend some time in Paris, France, he may go to his bank and ask for a cashier's check or for a number of such checks, which he may cash in Paris as he needs funds. Since these checks are payable to him, they cannot, if stolen, be cashed by others, and a second check will be issued in case the first is lost or destroyed.

Certified checks are usually those drawn by a customer of a bank and certified for payment by one of the bank's officers, so that, in a sense, certified checks are guaranteed by the certifying bank. The amounts of such checks are deducted from the customer's account at once. If any loss is incurred, the bank is liable; so it sets up this liability account until the check has been paid.

22. Acceptances Outstanding. On the asset side of the balance sheet there appears the item "Customers' Acceptance Liability." It was explained in discussing this asset item that it arose because of the customer's liability to pay the bank the face value of an acceptance at the time of its maturity. Whether or not, however, the customer does pay the bank at maturity, the bank is still not relieved of its liability to pay; therefore the acceptance item on the liability side of the balance sheet is, in a sense, the counterpart of the customer's liability, which is an asset. In this case, however, it will be noted that the liability item is greater than the asset item, $42,000,000 as against $40,000,000. The reason for this difference is that in some cases customers have paid the bank before the maturity of their acceptances, and therefore their liability is canceled, but the liability of the bank remains. In most balance sheets it will be found that these two items are exactly equal in amount.

23. Items in Transit with Branches. There appears on the balance sheet of the national bank under consideration a liability item of a relatively small amount under the heading "Items in Transit with Branches." Items in transit with branches include all those transactions between the head office and the branches

which will result in a claim against the bank as soon as the items reach the branches. While they are in transit, therefore, they are included as liabilities. For example, a branch office may receive from a customer a foreign-bond coupon for collection. As soon as the head office receives payment, it instructs its branch to pay the customer. It is this notice instructing the branch to pay its customer which gives rise to the liability item discussed here. Most of these items are no doubt in transit to foreign branches rather than to local branches in New York City. These items are just the opposite of items in the process of collection, which are assets.

24. Liability as Endorser on Acceptances and Foreign Bills. In addition to accepting drafts drawn upon it, this national bank has endorsed a few acceptances and foreign bills. Since this endorsement means that it will have to pay if the drawee does not, it is included as a liability item.

25. Other Liabilities. Among the more important items which would appear as other liabilities on the balance sheet of a national bank would be national-bank notes outstanding, rediscounts with the Federal reserve bank, and accrued dividends payable. These items need not always appear, because the bank may not be indebted to the Federal reserve bank, and some national banks do not issue national-bank notes. If the balance sheet were struck on the same date as the payment of the bank's dividends, then there would be no item for accrued dividends payable. When such an item appears, it is for the accrued dividend from the beginning of the dividend-payment period to the date of the publication of the statement. There was a time when outstanding notes were an important liability for a national bank, but the issuance of notes is now a minor function.

At the bottom of the balance sheet is a note which states that this bank has pledged $154,000,000 of its United States government and other securities to secure public and trust deposits and for other purposes required by law. For example, if this bank has deposits of the postal-savings system, it must pledge some of its bonds as security. Some government, state, and county deposits likewise require security collateral. Although pledged in this manner, these securities are still carried as assets.

The Balance Sheet of a State Member Bank. At the present time balance sheets of state member banks and national banks are very similar, as the following balance sheet (as of September 30, 1934) of one of the largest state member banks of New York City

Resources

Cash on Hand, in Federal Reserve Bank, and Due from Banks and Bankers		$222,427,916.51
Bullion in Foreign Branches		686,293.00
United States Government Securities		470,180,329.51
Notes of Reconstruction Finance Corporation		20,000,000.00
Public Securities		73,034,836.97
Stock of the Federal Reserve Bank		7,800,000.00
Other Securities		21,554,260.64
Loans and Bills Purchased		611,462,636.10
Credits Granted on Acceptances		36,207,929.09
Bank Buildings		13,883,422.39
Other Real Estate		97,835.74
Real-Estate Bonds and Mortgages		2,610,283.32
Accrued Interest and Accounts Receivable		17,428,004.25
		$1,497,373,747.52

Liabilities

Capital	$90,000,000.00	
Surplus Fund	170,000,000.00	
Undivided Profits	7,167,463.99	
		$267,167,463.99
Dividend Payable October 1, 1934		4,500,000.00
Accrued Interest, Miscellaneous Accounts Payable, Reserve for Taxes, etc.		7,891,491.44
Items in Transit with Foreign Branches		242,536.49
Acceptances	$89,978,330.35	
Less: Own Acceptances Held for Investment	53,770,401.26	
		36,207,929.09
Liability as Endorser on Acceptances and Foreign Bills		269,145.00
Deposits	$1,166,177,094.42	
Outstanding Checks	14,918,087.09	
		1,181,095,181.51
		$1,497,373,747.52

will show. About the only item which could not appear on the balance sheet of a state member bank that frequently appears on the balance sheet of a national bank is a liability item showing the amount of national-bank notes outstanding. State banks may issue notes, but since 1865 the tax has been prohibitive. Although this bank is a so-called trust company, it will be noticed that the items are very similar to those of the national bank.

It will be noticed that there is no preferred-stock or capital-debentures item for this company. This does not mean that state banks did not have access to the loans of the Reconstruction Finance Corporation, for in this particular case there was $20,000,000 of preferred stock prior to July 1, 1934, at which time this trust company paid off the loan which it had received from the Reconstruction Finance Corporation. The $20,000,000 asset item listed under the heading "Notes of Reconstruction Finance Corporation" had no connection with this former preferred-stock item. It represents bonds or notes which the Reconstruction Finance Corporation has issued and which have been purchased by this bank as an investment.

A Small National Bank. Thus far our examples have been confined to large banks and to banks located in New York City. Their borrowers are principally industrialists and security dealers. The smaller banks of the Middle West and South, which deal primarily with agricultural borrowers, present resources and liabilities of a different nature from those of the larger Eastern banks. The following balance sheet (as of December 31, 1934) of a small Middle Western national bank will illustrate these differences. This bank has been in existence for more than fifty years.

A total of $122,500 of government securities are pledged against circulating notes, government and postal-savings deposits, and deposits of states, counties, and school districts.

The most striking difference between this balance sheet and the ones previously presented is the relatively low volume of loans and discounts. Only 13 per cent of the assets of this bank are in the form of loans and discounts, while nearly 40 per cent of the resources of the two New York City banks were in this form. The lending business of this small commercial bank, therefore, is sec-

Resources

Loans and Discounts		$80,352.65
United States Government Obligations, direct and fully guaranteed		196,725.00
Other Bonds, Stocks, and Securities		82,543.08
Banking House, $18,500.00. Furniture and Fixtures, $2,000.00		20,500.00
Real Estate Owned Other than Banking House		5,700.00
Reserve with Federal Reserve Bank		35,758.63
Cash in Vault and Balances with Other Banks		51,505.79
Redemption Fund with United States Treasurer and Due from United States Treasurer		2,500.00
Other Assets		704.43
		$476,289.58

Liabilities

Capital Stock		$50,000.00
Surplus		10,000.00
Undivided Profits		2,538.92
Circulating Notes Outstanding		50,000.00
Dividends Declared but not yet Payable, and Amounts Set Aside for Dividends not Declared		1,000.00
Demand Deposits, except United States Government Deposits, Public Funds, and Deposits of Other Banks	$211,630.11	
Time Deposits, except Postal Savings, Public Funds, and Deposits of Other Banks	85,126.35	
Public Funds of States, Counties, School Districts, and Other Subdivisions or Municipalities	16,265.04	
United States Government and Postal-Savings Deposits	47,369.92	
Deposits of Other Banks, including Certified and Cashiers' Checks Outstanding	2,359.24	
Total Deposits		362,750.66
		$476,289.58

ondary to its investment business. Investments constitute nearly 60 per cent of its assets, and cash plus deposits in other banks (including the reserve in the Federal reserve bank) amount to more than loans and discounts. If this situation continues, it will be

necessary to revise the statement usually made, to the effect that the principal business of the commercial bank is that of granting loans and hence creating deposits.

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CHAPTER XVII

THE CLEARINGHOUSE SYSTEM

In Chapter XXV the method of clearing checks between cities in the United States is explained in some detail. This chapter deals with the method of clearing checks within cities.

From the point of view of number and of dollar volume the intracity clearings are greater than the intercity clearings. A distinction between clearance and collection should be made at the outset. Collection involves sending the checks to the banks upon which they are drawn and receiving in full payment a remittance in cash or its equivalent, while clearance involves offsetting the claims which the banks hold against one another by settling merely such balances or differences as remain. The latter method, of course, very much simplifies the process. During the eighty-one-year period, to September 30, 1934, in which the New York Clearing House operated, it had cleared items amounting to $7,332,828,074,543.64, which were adjusted by actual payment of balances equal to only $653,065,107,352.10, or slightly less than 9 per cent of the total volume of all checks cleared.[1] At the present time there are over four hundred regional and city clearinghouses in existence in the United States.

The Essence of Clearing. The functions of a bank as a machine for facilitating exchanges are shown on the most extensive scale in the operations of the clearinghouse. This is an association of banks whose primary object is to settle the claims which the members hold against one another. If there were only two banks in a particular place, there would be no need of a clearinghouse. Two clerks would meet at regular intervals, at the banking house of one or the other, and compare the claims that each held against the other. If bank A held checks, drafts, etc., for $10,000 drawn

[1] From the New York Clearing House Managers' Annual Report for 1934.

on bank B, while the latter held only $9000 drawn on the former, bank B would pay $1000 to bank A, and the checks, drafts, etc., would be mutually surrendered. A clearinghouse merely enables any number of banks to settle their balances in about the same time that two banks could do so, the clearinghouse being, for this purpose, the only creditor and the only debtor of each bank.

The Old System. The clearinghouse system was first introduced in New York in 1853. Prior to that time it had been customary for each bank to send a messenger to every other bank each day with a passbook and a package of claims. Thus bank A would sort out all the checks and other claims it held against bank B and, writing the amount in the book on the debit side of the page assigned to that bank, would send the book and package to the latter. Bank B would acknowledge receipt of the checks and write on the credit side of the page the amount of its claims on bank A, delivering by its own messenger the corresponding checks, etc., drawn on bank A and having the proper acknowledgment made on its own passbook. As there were thirty-eight banks in New York at that time, there were seventy-six bank messengers continually traversing the streets, getting in one another's way and in the way of the banks' customers, and liable to assault or accident. The balances were shown each day by the footings of the passbooks but, on account of the labor of carrying and counting gold coin, which was the only money receivable between banks, the settlements were made only once a week, and then by actual delivery of the coin, carried in bags through the streets.

The New York Clearing House. The New York Clearing House (located at 77–78 Cedar Street) is not only the oldest but also one of the largest and most influential and most completely organized among similar organizations in the United States. Its membership includes all the large banks in New York City, numbering twenty-one at the close of 1934. Only banks with an unimpaired capital and surplus of not less than $1,000,000 may join. Three other banks, though not members of the New York Clearing House, clear through a member which acts as their agent. In addition there are four hundred and fifteen branches of members whose items are cleared through the exchanges.

The New York Clearing House is supported by assessments made on each member in proportion to the average volume of exchanges during the year. The Federal Reserve Bank of New York is a member of it, as is also the United States Treasury, which has been a member since 1878. Trust companies were not admitted to it as members until 1911.

During 1928, 1929, and 1930 the New York Clearing House cleared on the average approximately $1,400,000,000 of checks a day. As would be expected, this average volume fell to approximately $500,000,000 in 1934, the decline being due partly to decreased business activity and partly to a lower price level. The largest single day's business was transacted on October 31, 1929. Checks amounting to $3,853,040,114.48 were cleared that day, while balances amounted to only $378,201,061.08.

Preparations for Clearing. In order to expedite the work of clearing, a bank must separate its checks into not more than twenty-one packages, one for each member of the clearinghouse upon which it holds any, and prepare a schedule showing the total amount of its claim on each bank. It must also have a debit ticket to be delivered to each, showing, for example, that bank A has a total claim on bank B for so much money. It must also come to the clearinghouse with a statement showing the aggregate of all its claims on all the banks. This, which is its claim against the clearinghouse for that day, is handed to the manager of the clearinghouse or to the proof clerk immediately upon entering. All these things must be done before the operation of clearing begins.

Each bank sends to the clearinghouse a delivery clerk and a settling clerk. The settling clerks occupy seats in three parallel rows running lengthwise of the clearing room, each one having a sufficient amount of desk room for his work. The delivery clerks, with their packages of checks in separate envelopes, stand in an open space in front of the settling clerks.

The Operation. All are expected to be in their places about ten minutes before ten o'clock in the morning. At two minutes before ten the manager of the clearinghouse strikes a bell; and, if any clerk is not in his place at that time, he is fined $2. The next movement is made with the precision, and with something of the

appearance, of a military drill. At exactly ten o'clock the bell is sounded a second time. Each delivery clerk then hands to the settling clerk in front of him the package of checks etc. drawn upon the latter's bank, and at the same time drops the debit ticket, which shows the aggregate amount of such claims, into an aperture in the settling clerk's desk. The delivery clerk then takes one step forward and repeats the operation with the next settling clerk, and so continues until he has handed out all his packages and tickets. Usually this part of the operation is completed in ten minutes. Meanwhile the proof clerk, who occupies a desk near the manager, has entered the claims of each bank under the head "Banks Cr." on a composite schedule.

The Result. Inasmuch as the amount of each bank's claim against the clearinghouse (entered under the head "Banks Cr.") is the sum of all the tickets which its delivery clerk has pushed into the letter boxes of the other banks, it follows that all the tickets of all the banks should equal all the entries under that head. The next step in the operation is for each settling clerk to arrange the amounts of all his debit tickets in a column, add it up, and send the amount to the proof clerk, who transcribes and arranges it under the head "Banks Dr.," so that the debit of bank A shall be on the same line with its credit. Then the difference between the two will show how much the bank owes the clearinghouse or how much the clearinghouse owes the bank. The time occupied by the settling clerks in arranging their tickets and adding up the columns is about half an hour. As fast as these footings are completed, they are sent to the proof clerk, who puts them in the debit column opposite the credits of the banks respectively. When all are completed, if no error has been made, the footings of the credit and debit columns must be exactly equal, and the footings of the columns, which show the differences, must be exactly equal. Then these differences are read off slowly and distinctly by the manager, so that each settling clerk can write down the sum that his bank has to pay or to receive.

As time is money at the clearinghouse, somebody is fined for every error, for every delay in making footings, for disobeying the orders of the manager, or for any disorderly conduct. Forty-five

minutes from ten o'clock are allowed for completing the proof. For all errors remaining undiscovered at eleven-fifteen the fines are doubled, and at twelve o'clock quadrupled. The highest fine for an error discovered before eleven-fifteen is $3.

At three o'clock in the afternoon there occurs an exchange of certain irregular and missent items which result from the morning's clearings.

Method of Payment. Payments of clearinghouse balances were formerly made in gold coin, gold certificates, or legal-tender notes. Since March, 1917, all balances of the New York Clearing House are settled through the Federal Reserve Bank of New York by simple bookkeeping entries. Each member of the clearinghouse is likewise a member of the Federal Reserve System and keeps an account with the Federal Reserve Bank of New York.

As soon as the clearing operations have been completed, a copy of the debit and credit balances is sent to the Federal Reserve Bank, where the proper additions and subtractions from the accounts of the individual members of the clearinghouse are made. On page 378 there is a sample of the proof sheet before the day's business has been entered.

Many clearinghouses use the Federal reserve bank of their district as the final settlement agency, even though there is not a reserve bank or a branch of the reserve bank located in the city. The Federal reserve bank is notified daily of the various debit and credit items by telegraph. This method reduces the risk and inconvenience of using actual cash and encourages the carrying of larger balances in the Federal reserve bank.

Other Varieties of Clearing. The members of a clearinghouse determine what kind of claims shall be admitted to the clearings. Usually these are checks, drafts, and certificates of deposit, which are payable at sight or have already matured. Yet the practice is not uniform. Some clearinghouses admit also the promissory notes and acceptances of private persons which are drawn "payable at the —— Bank" and have matured. Others admit checks and drafts drawn on out-of-town banks which are correspondents of members of the clearinghouse. In some clearinghouses payment of balances may be made by drafts drawn on other desig-

NEW YORK CLEARING HOUSE PROOF SHEET

No.	MEMBERS	DEBIT BALANCES DUE CLEARING HOUSE	DEBIT AMOUNTS RECEIVED	CREDIT AMOUNTS BROUGHT	CREDIT BALANCES DUE MEMBERS
1	Bank of New York & Trust Co.				
2	Bank of the Manhattan Co.				
8	National City Bank				
12	Chemical Bank & Trust Company				
23	Guaranty Trust Company				
30	Manufacturers Trust Company				
33	Central Hanover Bank & Trust Co.				
45	Corn Exchange Bank Trust Co.				
65	First National Bank				
67	Irving Trust Company				
72	Continental Bank & Trust Co.				
74	Chase National Bank				
76	Fifth Avenue Bank				
103	Bankers Trust Company				
106	Title Guarantee and Trust Co.				
108	Marine Midland Trust Company				
114	New York Trust Company				
120	Federal Reserve Bank of New York				
125	Commercial National Bank & Trust Co.				
127	Public National Bank & Trust Co.				
200	New York Clearing House				

CORRECT: _____ _____
Manager *For Federal Reserve Bank of New York*

nated cities, or partly in cash and partly in such drafts. In Boston the practice exists of borrowing and lending balances among the members, on the floor of the clearinghouse, immediately after the day's balances are ascertained, and 60 per cent of the balances

are usually disposed of in this way. Thus suppose that a certain bank has a credit balance of $100,000 at the clearinghouse for which it has no immediate use. In order to save interest on this sum even for a single day, it lends its balance to a debtor bank "on call," that is, repayable at demand. The creditor bank, in that case, gives an order in writing to the manager of the clearinghouse to transfer so much of its balance to the borrowing bank. This practice is so common in Boston that the clearinghouse rate of interest is quoted regularly in the newspapers.

Clearinghouse Loan Certificates. The clearinghouse association is well fitted for the performance of other duties than those of ascertaining and settling balances among the members. It is especially qualified for the task of checking financial panics. It sometimes happens that the demands of depositors for currency are so great that the cash reserves of the weaker banks are at the point of exhaustion, rendering them liable to suspend payments. As the suspension of one bank at such a time may lead to excessive demands upon other banks, causing them to suspend also, it is necessary to grapple with the crisis before it becomes unmanageable. Before the Federal Reserve System the banks united, through the clearinghouse, in the issue of clearinghouse loan certificates, in order to avert general disaster. There were six crises in which the New York banks adopted this method, and in the later cases with very complete success. The last one was in 1907, and a description of the process in this case will make clear the principles involved.

The panic began with the suspension of the Knickerbocker Trust Company, October 22. The immediate consequence was the rapid withdrawal of deposits from the banks. Obviously, if all the deposits of a bank are demanded in this form at once, they cannot be paid out of a reserve which is usually only a fraction of that sum. But some banks have larger reserves than others. Some are habitually more cautious than others. Some have larger capital and surplus in proportion to their liabilities. Some have a more steady-going class of depositors, less likely to be affected by panic, than others. Such banks are able to help their weaker neighbors. By combining, or pooling, the reserves of all the banks,

the weaker ones or those most exposed to danger may be saved, and thus the panic may be restrained or wholly averted. It is necessary, however, that the stronger banks be secured for the advances which they make, and the method successfully adopted in 1907 for aiding the weaker banks, without injuring the stronger ones, was the issue of clearinghouse certificates.

On October 26, 1907, the Clearing House Association resolved that any member might present to the loan committee its bills receivable or other securities, together with its own obligation, and receive, in exchange for such securities as were approved by the committee, certificates for 75 per cent of the par value of the same — these certificates to be accepted in lieu of cash in the payment of balances at the clearinghouse. The certificates drew interest at 6 per cent, payable to the holder, and were in the following form:

No. —.

LOAN COMMITTEE OF THE NEW YORK CLEARING HOUSE ASSOCIATION

This certifies that the [name of bank] has deposited with this committee securities in accordance with the proceedings of a meeting of the Association held October 26, 1907, upon which this certificate is issued. This certificate will be received in payment of balances for the sum of *Five Thousand Dollars* from any member of the Clearing House Association.

On the surrender of this certificate by the depositing bank above named the committee will endorse the amount as a payment on the obligations of said bank held by them and surrender a proportionate share of the collateral securities held thereunder.

$5000 *Committee*

The certificates could not be used for any other purpose; and, as they drew the highest legal rate of interest from the time they were used, there was a pressure upon the banks not to take out

more than they really needed. The creditor banks were paid in the obligations of the debtor banks, secured by these loan certificates. Thus the reserves of all the banks were made a common fund. The total reserve was not made any larger by this means, but all the reserves of all the banks were made available for those banks which were in temporary straits; and the aggregate demand for currency was lessened, because the union of the banks had a powerful influence on the public imagination. It did not lessen any real want of currency, but it quieted people's fears and checked their imaginary wants.

Suppose that a run on the banks takes place in a town which has only two such institutions — bank A with a large cash reserve, and bank B with a small one. Bank A, instead of demanding payment of the checks on bank B, which it receives in the course of business, may accept the obligations of the latter, secured by its assets, and leave it free to use all its cash in meeting demands made directly upon it. By this arrangement bank A practically lends bank B cash for paying depositors as long as the reserves of the two hold out. If the run should continue, however, both banks, although essentially sound, would be forced into liquidation, unless their creditors should be willing to accept certified checks which could not be immediately paid. Any creditor whose demand was not paid could force a liquidation.[1]

This represents on a narrow scale what takes place on a wide scale in a city with a large clearinghouse association issuing loan certificates in a panic. The combined reserves of any number of banks are exhaustible in the same way as those of two banks or of one bank, but a large group of banks united together inspires confidence. People believe that it cannot fail, and because they so believe, it does not fail. When the combined reserves have been lowered to the danger point, the banks, instead of paying cash on checks presented to them, may stamp them "good through the

[1] In the panic of 1893 there were three banks in the town of Albany, Georgia, which weathered the storm by means of clearinghouse loan certificates. In Vicksburg, Mississippi, five banks joined together in an agreement that they would not pay more than $50 per day in cash to any one depositor, and did so with impunity.

clearinghouse"; and in nine cases out of ten the holders of the checks will accept them in this form and pay them to their creditors, who will deposit them in their own banks. The checks thus certified pass through the clearinghouse, where, as we have seen, 95 per cent of them offset one another. Every bank is required by law to pay every check on demand in legal-tender money. Yet, if the holder of the check accepts the stamp, "good through the clearinghouse," in lieu of cash, the law is satisfied. If he insists upon payment at all hazards, the bank must pay or close its doors, and in every such case it will try to pay. It keeps back some of its cash for such emergencies and to meet the needs of manufacturers for the payment of wages, or to answer demands where special hardship would arise from the want of currency. At such times the influence of public opinion is all-powerful and does not allow men to exercise their full rights. The fact is recognized that the banks cannot pay all their deposits at once and that, when a crisis comes, the banks can best judge what discrimination should be made.

The whole amount of loan certificates issued by the New York Clearing House in 1907 was $101,060,000, of which $88,420,000 were outstanding at one time. This did not prevent the partial suspension of cash payments. There came a time when most of the banks had some difficulty about the payment of checks over the counter, although the clearinghouse operations continued without interruption. Then the phenomenon of a premium on currency was witnessed in Wall Street. Certain persons who had currency in their possession were glad to sell it at a profit, while others who needed it, but who preferred not to add to the troubles of the banks by demanding it from them, were willing to give more than equal amounts in the form of certified checks for it. In this way a brisk business sprang up, and the premium of currency over certified bank checks rose as high as 4 per cent.

Other Features of the Panic. There are other features of the panic, however, which should not be overlooked. In order to prevent people from drawing their own money out of banks, and at the same time to prevent the banks from incurring any penalties for refusing payment, the governor of Oregon, in the autumn

of 1907, declared legal holidays continuously from October 28 to December 14, seven weeks; that is, he legalized bank suspension for that period. The governor of California declared such holidays from October 31 to December 21, eight weeks, suspending the whole judicial system of the state, both civil and criminal. In Indiana the attorney general declared that no state law was violated by banks or trust companies in limiting payments on deposits, if part payment was offered in each case. The auditor of the same state assured all the banks and trust companies in writing that if they were solvent they need not make full payment on checks drawn by their depositors, and that each bank might decide for itself whether it was solvent or not. Similar action was taken by the public authorities in several other states, but generally the banks did not wait for such authorization. Each one immediately became a law unto itself.

In two thirds of the cities of the United States, of more than 25,000 inhabitants each, restrictions were arbitrarily imposed upon depositors, limiting them to various sums to be drawn, such as $10 to $50 per day or per week or per customer, but in most cases the amount to be paid was discretionary with each banker; that is, the banker could pay some customers in full and refuse others, or cut them down to any percentage he pleased. Only fifty-three cities in the United States of the size mentioned maintained cash payments without any restrictions. The total amount of clearinghouse certificates reported in the cities of this size was $330,066,223.

In most cities and towns substitutes for money were put in circulation. All were illegal. Some were engraved to resemble bank notes or government notes, and these were doubly illegal; some were as small as twenty-five cents, and these were trebly illegal; some were in the form of post notes, which are prohibited by law. State banks issued circulation as freely as national banks. Upwards of $23,000,000 of this kind of circulation was issued. The inscriptions were various. Some were made payable to order, some to bearer, and some "To the order of bearer." They were issued not only by banks, but by any kind of corporation. The Standard Oil Company issued them in small denominations in New York

City, drawn on the National City Bank, "payable to the order of bearer." In Pittsburgh a large manufacturing corporation drew checks for $1 for wages payable to bearer, with these words stamped on the back in four different languages: "This check may be deposited, but will not be paid in cash by the bank." Many of the poor laborers from eastern Europe who received these things tore them up after reading them and threw away the pieces. The only idea conveyed to their minds by the inscription was that the checks would not be paid.

In New York City currency was sold at 4 per cent premium over bank checks. Any man having $100 cash in his pocket could sell it for a check for $104, stamped "good through the clearing-house." These conditions lasted twenty-two weeks with varying intensity. In 1893 only eight cities resorted to clearinghouse certificates for settling bank balances. In 1907 there were forty-two such. In the latter year the total amount of certificates issued in New York was two and a half times greater than in any previous panic, in Pittsburgh seven times, in New Orleans five times, in Detroit four times, in Baltimore two times, and in the whole country three and a half times greater. In 1893 the duration of the suspension was nineteen weeks; in 1907 twenty-two weeks.[1]

These frequently recurring episodes tend to deaden the sense of commercial honor. Every such suspension is a license to every financial institution to scale its debts or to postpone the payment of them. When banks thus repudiate their obligations, their depositors can hardly do otherwise, and thus a bad education is disseminated in the community. People come to think that bank suspensions are among the dispensations of Providence instead of being the signs of a defective banking system.

Bank Holiday of March, 1933. A very large share of this chapter was written before the bank holiday of March, 1933. The 1933 panic, however, introduced few new procedures, except that the Federal government intervened more strongly than in previous crises. Very few, if any, clearinghouse loan certificates were issued in 1933, owing to the closing of all banks in the

[1] See article entitled "Substitutes for Cash in the Panic of 1907," by A. P. Andrew, in the *Quarterly Journal of Economics*, August, 1908.

United States, but an emergency currency was provided. The banks were closed for approximately ten days.[1]

Unlike previous money panics the bank holiday of March, 1933, prompted the use of very little scrip in this country. It was used in some localities, but it was never adopted on a national or even on a state-wide scale. Before a definite decision had been reached as to the best procedure to follow in reopening the banks, several states prepared to issue state-wide scrip. Thus we read in a United Press release of March 7, 1933:

> . . . the governor in New York issued an announcement of a plan for state-wide scrip. It was approved by Treasury Secretary Woodin, and apparently was designed to serve as a model for other states which desired to avoid finding scrip from one city exchanging at a premium for scrip of another which might be regarded as less adequately secured.
>
> * * * * *
>
> Under the Lehman plan, a state-authorized corporation would be formed to receive from banks deposits of approved assets, against which scrip of the corporation would be issued to the banks. It would then be made available, through the banks, to depositors and other creditors on a pro rata basis.
>
> The governor made it clear that the plan would not interfere with plans of the New York City Clearing House Association to issue its own scrip, though the new corporation will be open to any bank, and it was apparent that the city banks would be welcome in the move to have uniform scrip in use throughout the state if the Federal government does not, on a national scale, provide for uniformity throughout the country.

On the following day, however, the Associated Press carried the following release: "Secretary Woodin said today that actual currency would be circulated in place of scrip or Clearing House certificates under a plan now being formulated." From this point all nation-wide and state-wide scrip plans were abandoned, so that in the end scrip was used during the bank holiday only in very localized or specialized cases. Many business concerns accepted I O U's from their regular customers, but these pledges did not circulate as money.

[1] For a more complete description of this episode see Chapter XXX.

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CHAPTER XVIII

COLONIAL BANKING AND EARLY AMERICAN BANKS

Colonial Banking

A public bank in the American colonies, as we have seen, was an emission of circulating notes by a provincial government, with a promise of redemption of the same from the proceeds of taxation at a fixed time. A private bank was an emission of notes by private persons, to supply a supposed deficiency of the medium of exchange. In some cases there was a specific promise of redemption of such notes. In others there was merely an agreement among the subscribers to accept them in trade. According to the latter plan it was not necessary that a bank should have any capital, but merely that it should have the means of putting its notes in circulation. Consequently the subscribers to the undertaking did not agree to pay money into the bank, but to take out and keep out a quantity of the note issues proportioned to their subscriptions, and to accept the same in trade as the equivalent of money. As security for the fulfillment of this promise, and for the ultimate redemption of the notes in money or goods, they gave mortgages of land to the association of which they were members. The association was both a lending and a trading company.

The current ideas of banking were derived from England, and more remotely from the continent of Europe. The Bank of Amsterdam was established by the city government of that place in 1609, for the purpose of maintaining the true standard of value in commercial transactions. The coins then in circulation were not of uniform goodness. Some were worn by long use; others were mutilated; many were produced by private mints. They were of almost countless variety and were, on the average, about 9 per cent below their nominal value. The Bank of Amsterdam served

both as an assay office and as a place of deposit. All sorts of coins were received from depositors and their weight and fineness determined, and the depositors were allowed to draw out for their own use or to transfer to others the true value in standard money, or in "bank money," as it was commonly called. All bills of exchange payable in Amsterdam were required by law to be paid in bank money. Transfers of such money were at first made by the payer to the payee personally in the bank, but this method was afterward superseded by orders in writing; and here, perhaps, we find the origin of the bank check.

The lesson which had been learned in England from the continental banks in the first half of the seventeenth century was that if the degraded coin then in circulation should be deposited in a bank and an equivalent credit in terms of standard coin be given depositors, such credits could be made use of in the adjustment of debts by transfers of account at the bank. The idea of making a bank thus act as a clearing house for the nation, through the deposit in its vaults of all the current coin, and its conversion into bank credits, soon led to propositions to comprehend goods and merchandise with coin in the establishment of bank credits.[1]

The Fallacy of Land Banking. The assumption that giving security for the *ultimate* payment of a paper currency is the same thing as providing for its redemption at *any* time, or that it will answer the same purpose, is a pernicious fallacy. It confounds the promise to pay money with money itself. The promise to pay is of full face value only where there is certainty of its fulfillment at the demand of the holder. Security, on the other hand, implies payment at some future indefinite time; and, where land is the security, the time is usually remote. A paper currency must be promptly redeemable in coin.[2] No kind of security, not even that of government bonds, is a good substitute for such redemption.

[1] *History of Currency and Banking in the Province of Massachusetts Bay* (American Economic Association), by Andrew McFarland Davis, Part II, "Banking."

[2] This is an example of what Mr. White believed regarding how to secure "sound" money. On this point many modern students are not so dogmatic, stressing the point that limitation of quantity is far more important, as a means of preventing depreciation.

Yet the idea of "basing" currency on various kinds of property, and especially on land, has had many advocates; and many experiments — invariably ending in disaster — have been made with currency of this kind.

This idea found lodgment on our shores in the latter part of the seventeenth century. In September, 1681, there was established in the colony of Massachusetts Bay a company called The Fund at Boston in New England, whose object was to facilitate the transfer of property and credits among the members by book entries at the head office. The basis of the Fund consisted of mortgages conveying to the trustees certain real estate to be held by them for the purposes designated in the articles of association. To each mortgagor was given a corresponding credit which he could transfer to any other member in the form of a "change bill" for any debt, purchase, or obligation. Our knowledge of this institution is very slender, being limited to one mutilated pamphlet and a few mortgages in the Suffolk Registry of Deeds for the years 1681 and 1682.[1]

The Projection of 1714. This was followed in 1714 by a more elaborate scheme of private banking entitled "A Projection for Erecting a Bank of Credit in Boston, New England, Founded on Land Security." The preamble recited that there was a sensible decay of trade for want of a medium of exchange. To supply this deficiency certain parties proposed to subscribe £300,000, every subscriber agreeing to "settle and make over real estate to the value of his respective subscription, to the trustees of the partnership or bank, to be and remain as a fund or security for such bills as shall be emitted therefrom." Each subscriber was pledged to give the same credit to the bills as to those of the province, and to accept them in all payments, "upon forfeiture of £50 for each refusal until the refuser has forfeited his whole security and profits." Loans of the bills might be made on "ratable estates," to the amount of two thirds of their value; on "iron or other unperishable commodities, as a pledge, for one half or two thirds

[1] See essay on "The Fund at Boston in New England," by Andrew McFarland Davis, in Proceedings of the American Antiquarian Society, April 29, 1903.

according to the market." Each subscriber was obligated to take out, and keep out for two years, notes of the bank equal to at least one-fourth part of the amount of his subscription; but he could transfer this obligation, or privilege, to any other person on the books of the bank. All loans were to bear 5 per cent interest. The form of the notes contained no promise to pay, but merely the pledge of the subscribers to "accept the same in lieu of —— shillings in all payments" and the pledge of the bank to accept them "for the redemption of any pawn or mortgage in the said bank."

The Projection led to a controversy which, the historian Hutchinson says, "had an universal spread and divided towns, parishes and particular families." Paul Dudley, the attorney general, attacked it on legal grounds. No process was indicated by which any holder could compel any subscriber to receive the notes as the equivalent of silver money in goods, nor was there any provision for fixing the price of the goods. The General Court disapproved of the scheme and, in order to create a division in the ranks of its supporters, passed a new loan act for £50,000 of colonial bills of credit. "This," says Hutchinson, "lessened the number of the party for the private bank but it increased the zeal and raised a strong resentment in those which remained."

The New London Bank of 1732. Following this attempt, and evidently patterned on it, was a company formed in Connecticut in 1732 under the name of the New London Society United for Trade and Commerce. A petition for a charter, addressed to the colonial Assembly in 1729 by Solomon Coit in behalf of the company, asked among other things that the company be allowed to "emit bills for currency upon our own credit as we may see occasion at any time, for promoting or maintaining our trade" and that the penalties for counterfeiting the bills should be the same as for counterfeiting those of the province.[1] The petition was refused, for the reason, evidently, that the Assembly was not willing to grant to a private company the power to issue bills of credit as currency. Three years later a charter was granted to the New London company without the power to issue bills, but the company immedi-

[1] Davis, *History of Currency and Banking in the Province of Massachusetts Bay*, p. 105.

ately passed a vote to issue £30,000 of bills and began to put them in circulation by buying goods from persons who were willing to take them. The bills recited on their face that they should be "equal in value to silver at sixteen shillings per ounce, or to bills of publick credit of this or the neighboring governments." There was no promise that money or anything should be paid for them, but merely that they should be accepted by the treasurer of the society "and in all payments in said society from time to time." The society had no capital, but the members had executed mortgages of land which were supposed to secure the holders of the notes.

The bills of the New London company were eagerly accepted in trade; but, as soon as the fact of their issue came to the knowledge of Governor Talcott, he took steps to suppress them. The colonial Assembly was called together to consider the subject. It declared that it was not legal for private persons to emit bills of credit to circulate as money without authority from the government, and it repealed the charter of the New London company for violation of its provisions — particularly because it had no capital paid in, as the charter contemplated, but only mortgages as a basis of its trading operations. The company was accordingly dissolved, and the legislature made an issue of colonial bills of credit with which to redeem the company's bills, taking the mortgages in the hands of the company's treasurer to reimburse the government.

Private Note Issues in 1731. Rhode Island in 1731 struck terror into the business communities of Massachusetts and Connecticut by a "new bank," with an issue of £100,000 in bills of credit as loans to individuals. An attempt was made in Massachusetts to forestall this issue by an agreement of the leading citizens not to accept them in trade. In order, at the same time, to preoccupy the field of circulation, a number of Boston merchants of high standing formed a partnership and issued £110,000 of notes intended for general circulation. They were issued as loans at interest, repayable in notes of the same kind or in coined silver of specified weight and fineness, at different periods during the next ten years. The details of the issue are interesting, but

the only fact of importance now is that this was an attempt to drive out a bad currency by issuing a better one to take its place. The result was in strict accord with Gresham's law. The Rhode Island bills came in, despite the efforts made to keep them out. They caused a further depreciation of the currency. The merchants' notes, which had a fixed value in silver and were supported by the credit of wealthy and well-known citizens, commanded a premium and were consequently hoarded.

A New Hampshire Experiment. This kind of banking found imitators in the Province of New Hampshire. In 1735 a number of merchants in Portsmouth formed a partnership and issued notes of various denominations, payable in ten years "in silver or gold at the then current price." The only important fact about this bank is that the Assembly of Massachusetts passed an act to prohibit the circulation of these notes in the latter province, and that the Lords of Trade in London disallowed it, on the ground that, since nobody was obliged to take them, "it would be a great hardship to set a public mark of discredit upon the persons engaged in this undertaking." In other words, the Lords of Trade recognized the fact that the issue of notes by private persons to circulate as money was permissible, provided they were not made legal tender.

The Land Bank of 1740. The next attempt to establish a bank in Massachusetts, and the one most disastrous to the projectors, was made in 1740 under the name of the Land Bank or Manufactory Scheme.[1] It was an outgrowth of the ideas which gave birth to the Projection of 1714 and to the New London Bank of 1732. The prospectus was published as a broadside on March 10, 1739–1740. It proposed to found a bank with a capital stock of "£150,000 lawful money" but did not provide for paying in any money, except 4s. on each £1000, to meet the expenses of or-

[1] See *A letter to a merchant in London concerning a late combination in the Province of Massachusetts Bay in New England to Impose or Force a Private Currency called Land Bank Money; printed for the publick Good, 1741.* This pamphlet is anonymous, but Andrew McFarland Davis says that it was written by Dr. William Douglass. The style certainly resembles that of Douglass.

ganization. Each subscriber was to "make over an estate in lands" to the satisfaction of the directors and pay 3 per cent interest for the same, either in the bills of the company or in various manufactured articles, the produce of the provinces. The list of things so receivable included hemp, flax, cordage, iron, wool, beeswax, tallow, cordwood, and a dozen others, at prices to be fixed by the directors. Five per cent of the principal of the subscription was to be paid each year in the same articles or in said bills. The form of the bills was appended to the prospectus, thus:

TWENTY SHILLINGS

We promise for ourselves and partners to receive this twenty shilling bill of credit as so much lawful money in all payments, trade and business, and after ye expiration of twenty years to pay ye possessors ye value thereof in ye manufactures of this province.

The wording of the bills was subsequently changed to the following form:

We jointly and severally promise, for ourselves and partners, to take this bill as lawful money at six shillings eight pence per ounce in all payments, trade and business and for stock in our treasury at any time; and after twenty years to pay the same at that estimate on demand of Mr. Joseph Marion, or order, in the produce or manufactures enumerated in our scheme, for value received.

Although no method of issuing notes was described in the prospectus, it was understood that the capital stock of £150,000 was to consist of bits of paper of the foregoing tenor, to be divided among the subscribers in proportion to their subscriptions, and that they were to buy goods with them, subject to the condition that they should accept them in trade, at the rate of 6s. 8d. per ounce of silver — a phrase which, in the absence of any fixed prices for the goods traded in, was quite meaningless. But even if this had been a solvent specie-paying bank, the net result would have been a donation of the face value of the notes by the public to the bankers, without any return whatever, since the notes were payable only at the end of twenty years, and the prevailing rate of interest was 5 per cent. At least one thousand men of Massachusetts saw this prospect of gain, for fully that number

subscribed for shares in the Land Bank or Manufactory Scheme. These men had large political influence. They soon acquired a majority in the General Court, but Governor Belcher and the council were bitterly opposed to the project. The governor issued a proclamation against it and cautioned all persons, especially all officeholders, against receiving the bills of the Land Bank, saying that they tended to defraud people of their property.

Notwithstanding this opposition the Land Bank began to issue its bills in September, 1740. Their appearance in business circles caused much anxiety in Boston, whose merchants could not fail to see the mischievous and unsubstantial nature of the scheme. One hundred and fifty of them signed an agreement that they would not take the Land Bank bills on any terms or countenance their use in any way. The Land Bank now became the great issue of the day, overshadowing every other. Governor Belcher removed from office several persons who favored the bank after he had issued his proclamation against it. Many others tendered their resignations, among them Samuel Adams, Sr. The directors of the Land Bank sent a copy of their articles of association to the council for record. The council ordered the secretary not to receive it and voted that the presentation of it was an indignity.

That the Land Bank was legal, in the absence of any prohibition by the General Court, does not admit of doubt. Governor Belcher, the council, and the Boston merchants knew this. They knew also that they could not get the lower house to join with the council in prohibiting it. So they turned to Parliament, and here they were more successful. On March 27, 1741, the House of Commons passed an act extending the provisions of the so-called Bubble Act of 1720 to the American colonies. The latter act had been passed in order to prohibit the transaction of business by joint-stock companies without special authority of statute, and it imposed severe penalties upon those who should do so. It was applicable only to the United Kingdom; yet Parliament now declared that it "did, does and shall extend to America," and in the preamble it referred expressly to the Land Bank as one of the offenders against it. This was *ex post facto* legislation, based upon historical untruth. Not only had the Lords of Trade, in the New

Hampshire case cited above, refused to put the stamp of illegality upon a bank in the colonies, but the attorney general in 1735 had declared in an official communication that there was no objection in point of law to a land bank at that time projected "at Boston in the Massachusetts Bay."

Before the news of the act of Parliament reached Boston the bills of the Land Bank had been somewhat discredited by reason of the refusal of the principal merchants of Boston to touch them. Their action caused great exasperation in the rural districts, and a movement was started to use mob violence against them. Governor Belcher received information of the intended riot and sent the sheriff to arrest the leaders of it.

The Land Bank men, in order to get their notes in circulation, had bought any kind of goods for which the owners would accept the notes in payment, and at such prices as the individual traders could agree upon. There was nothing like a uniform price of goods so bought. Now the Bubble Act altered the terms of these private contracts by giving the holders of the notes an immediate right of action against every partner for their face value. Many of the shareholders were ruined. Some of them withdrew to the neighboring colonies, where they could not be reached, leaving a heavier burden upon others. The affairs of the Land Bank occupied the attention of the General Court for a quarter of a century, and the litigation growing out of its affairs was protracted till 1767 or later.[1]

No step taken by the mother country in reference to the colonies was more maladroit than this. No other, not even the Stamp Act, caused greater bitterness. It was also quite unnecessary, for the Land Bank was doomed to an early death by its inherent vices. Its weakness had already been manifested in the early return of its bills to the company's treasurer and to individual members, to be exchanged for tangible property, lest they should fall in value. Just as it was beginning to totter by reason of its own feebleness the British government gave it an annihilating blow. All the educating and helpful influence that would have followed from a

[1] The history of the Land Bank of 1740, down to the smallest minutiae, is given by Andrew McFarland Davis in *History of Currency and Banking in the Province of Massachusetts Bay.*

natural demise was lost, and in its place was planted an undying animosity toward the mother country for an act of glaring injustice. Massachusetts was nearly ripe for revolution in 1741.

Early American Banks

Bank of North America. The first bank in the United States was the Bank of North America, at Philadelphia. It was planned and put in operation in 1781 by Robert Morris, the Superintendent of Finance of the Revolution, in order to give financial support to Washington's army. It had been preceded by a so-called "Bank of Pennsylvania," which was a private subscription of money, not for the sake of profit, but to supply rations for the army when the Continental currency was becoming worthless.

Morris conceived that a bank with a paid-up capital, on a specie basis, and in high credit, "would have the interest of a stock two or three times larger than that which it really possessed." By this he meant that it could lend its credit, and receive interest therefor, to an amount two or three times larger than its cash on hand — a sound conception. The project was approved by Congress, which granted a charter to the bank on May 26, 1781. The great difficulty was to secure the necessary subscription. The capital stock was fixed at $160,000, with power to increase it, but only $70,000 was subscribed in the first four months. Fortunately a French frigate arrived at Boston in September, bringing $462,862 in specie to the government. Morris brought it in wagons to Philadelphia and lodged it in the bank. He then increased the capital stock to $400,000 and made a subscription of $250,000 thereto for the government, paying in $200,000 of the amount. This brought financial support to the bank from private sources and gave it immediate credit, through which it was enabled to make large advances to the government, besides doing a considerable business in the discount of commercial paper. Morris's anticipations were fully realized. The troops were regularly fed, clothed, and paid; industry revived; the bank's notes were redeemed in specie on demand; and it was found that there was no lack of a circulating medium. This magical transformation took place after the

Continental currency had disappeared, and largely because of its disappearance.

Doubts existed whether Congress had the power, under the Articles of Confederation, to charter a bank. Consequently the Bank of North America sought and obtained another charter from the legislature of Pennsylvania. After the termination of the war the bank became very prosperous, paying dividends of 14 per cent per annum. These gains prompted the starting of another bank in Philadelphia; but the Bank of North America offered to enlarge its capital and take in the subscribers to the new bank, and the offer was accepted.

Morris had remarked in 1784 that the bank had created a habit of punctuality in the payment of debts and that everybody felt the benefit of it, meaning all those who were in good credit. These, however, were far from being a majority of the people. Complaints were made to the legislature that the bank was guilty of favoritism, of extortion, and of harshness to debtors, and that it tended to destroy that equality which ought to exist in a commercial country. A petition embodying these and other accusations was presented from citizens of Chester County, with a hint that bills of credit issued by the state would be more beneficial than bank notes. This meant that bills of credit would be distributed according to population or political influence, whereas bank loans were at the service only of men who could repay them at maturity.

The legislature took the matter into consideration and appointed a committee "to inquire whether the bank established at Philadelphia was compatible with the public safety and that equality which ought ever to prevail between the individuals of a republic." This idea, that the business of banking savors of aristocracy and tends to the overthrow of free institutions, had a strong hold on the public mind in the early years of the republic[1]

[1] "Pope, of Kentucky, in the debate of 1811, said that the Virginians were known to be very poor financiers, 'for they were, a few years since, frightened at the very name of a bank.... It required all the eloquence of ... [Brent of Virginia] to persuade the Legislature that the little Bank of Alexandria would not sweep away their liberties.'" — Sumner, *History of Banking in the United States*, p. 20.

and has not yet wholly disappeared, although it has undergone some modifications.

The legislature of Pennsylvania was so far convinced of the tendency of banks to produce inequality among citizens that it repealed the charter of the Bank of North America on September 3, 1785, within three years of the time when it had rendered inestimable services to the patriot cause. The bank protested that the charter was irrepealable and continued its business, but took steps to obtain a charter from Delaware, with the intention of transferring itself to Wilmington. Such a charter was granted early in 1786. Then Pennsylvania, fearing lest it should lose the bank, in 1787 granted it a new charter, which was renewed from time to time and under which it continued till the national banking law was passed. It declined at first to enter the national system, because, under the rules adopted by Secretary Chase, it would have been obliged to change its name. But a dispensation was granted to it, on account of its illustrious origin, to come in without such change.

In the first hundred and forty years of the life of the Bank of North America it passed its semiannual dividend only five times. The benefit it conferred upon the country, by setting an example of sound principles and practice in banking, is second only to its patriotic service in the Revolution; and for both we are indebted to Robert Morris, although he was never president or even a director of the bank.[1]

Ordinarily it would not be good banking practice to advance large sums of money to the government or to have the government as a shareholder of the bank, but both these features were necessities in the case of the Bank of North America. Within the limits thus imposed, the bank was conducted in a businesslike manner. The government paid interest and principal on its loans like a private borrower, and received dividends on its shares like a private stockholder. It ceased borrowing and sold its shares as soon as possible.

[1] *A History of the Bank of North America* down to 1882 has been written by Lawrence Lewis, Jr. An interesting account of its origin and early years is given in Sumner's *Financier and Finances of the American Revolution.*

Bank of Massachusetts. Next in point of time was the Bank of Massachusetts. Its charter, granted by the legislature on February 7, 1784, contained no restrictions or conditions except the right of the legislature to examine its affairs. No mention was made of circulating notes, since the right to issue them was thought to be embraced in the right to be a bank, though a subsequent law was passed by the same legislature to punish persons who should counterfeit the notes. The first restrictions on the bank were imposed by a law passed in 1792. These were (1) that the bank should not issue notes smaller than $5; (2) that the outstanding notes and loans should not exceed double the amount of the capital stock actually paid in; (3) in case of violation of this law the directors were made personally liable for the debts of the bank, but those who were absent or had dissented might exonerate themselves by giving notice forthwith to the governor of the state; (4) statements of the bank's affairs were to be given to the governor and council every six months, but no form of statement was prescribed; (5) the bank was prohibited from dealing in merchandise or in the shares of any bank.

Bank of New York. The third in point of time was the Bank of New York, founded — or, at all events, proposed — by Alexander Hamilton in 1784, as an alternative to a land bank favored by Chancellor Livingston. Under the Livingston plan one third of the bank's capital was to be paid in cash and the remaining two thirds was to consist of landed security in New York and New Jersey. In March, 1784, Hamilton wrote a letter to J. B. Church, counseling him against this project and proposing a "money bank" in place of it. He dissuaded several city merchants from taking an interest in the land bank, and they then asked him to draw up articles for a money bank, which he did. This was the Bank of New York. It began business on June 9 of the same year. As its application to the legislature for a charter was refused, it began business without one; but the only penalty for doing so was the condition that the liability of the shareholders for the debts of the bank was unlimited.

The bank, when organized, announced that the rate of interest on loans would be 6 per cent, that loans should run for thirty days

only, that no note would be discounted to pay a former one, that payments to the bank must be made in its own notes or in specie, and that overdrafts would not be allowed. Gold coins, which at that time were more or less clipped or abraded, were to be received by weight only. These regulations, especially the one requiring punctual payment of debts, made the bank very prosperous but very unpopular.

The directors were charged with working in the interest of British capitalists and traders and with refusing discounts a few days before the sailing of the European packet, that they, personally, might profit by the distress thus occasioned. The bank, it was contended, had destroyed private credit, as well as that confidence, forbearance and compassion formerly shown by creditors to their debtors. Such was the result of enforcing the payment of a note at maturity when lodged in the bank. And among the terrible consequences to follow, it was predicted that "if their number is not restricted, should banks be permitted in America, after the profits they yield are known, we may not alone have one in every state but also in every county of the different states." [1]

In 1786 the state made an emission of bills of credit, with the result that the bank divided itself into two parts, a specie bank and a paper bank, keeping the accounts of the former in dollars and of the latter in pounds, making discounts in paper on Tuesdays and in specie on Thursdays, and issuing some of its circulating notes redeemable in paper of the state and others redeemable in specie.

An application was made for a charter in 1785 and another in 1789. Both were refused. A charter was finally granted to the bank in 1791. It provided (1) that the debts of the bank, "over and above the monies then actually deposited in the bank," should not exceed three times the amount of the capital actually paid in; (2) that it should not hold real estate, except such as might be requisite for the accommodation of its own business or such as it should have taken as security for debts previously contracted; (3) that it should not deal or trade in any kind of commodities or in the stocks of the United States or of any state, though it might, if necessary, sell such stocks pledged to it by way of security.

[1] *History of the Bank of New York, 1784–1884*, by Henry W. Domett.

In the first list of shareholders of this bank are the names of Alexander Hamilton, Aaron Burr, and Rufus King. One of the depositors was Talleyrand, some of whose checks are still preserved.

Question of Small Notes. The earliest regulations of banking enacted by public authority in the United States were those enumerated above. The first regulation of Massachusetts had reference to the denominations of bank notes. The question whether a bank should be allowed to issue notes smaller than $5 or $10 was a matter of controversy in most of the states during the first half of the nineteenth century. Legislation on the subject was not uniform. It was contended, on the one hand, that it was desirable to have a large amount of specie in circulation, in order to give stability to the currency, and that the way to secure this was to banish small notes. It was also argued, on the other side, that the circulation of specie, beyond the amount required for small change, was an inconvenience and involved an appreciable loss by abrasion. Experience in the United States has now decided in favor of paper currency of denominations as small as $1.

Restriction of Debts and Credits. The restriction of notes and loans to twice the capital stock actually paid in was intended to guard against undue expansion of both debts and credits. In the later legislation of Massachusetts, as will be seen, the restriction was changed so as to provide that neither the credits nor the debts of a bank (except for deposits) should exceed twice the capital, the deposits not being reckoned as debts for this purpose. (This restriction, as regards loans, was superseded in the national banking law by a requirement that a bank should not make new loans when its cash reserve was below a certain percentage of its deposits.) In case of violation of the law, the directors were personally liable for the debts of the bank unless they took immediate steps to make their dissent known to the public authorities.

The reasons for requiring periodical bank statements have been made clear earlier in this chapter, but the Massachusetts requirement was defective, since it gave opportunity to the bank's officers to make special preparations therefor. The prohibition against trading in merchandise was proper, since such trading would have

made the banker a rival in business of the merchant and to that extent would have incapacitated him for discounting the merchant's paper. The two vocations should be co-operative, not competitive. It was inexpedient also for a bank to buy its own shares, since by so doing it impaired its capital. If bank A, for example, with a paid capital of $100,000, buys in all its shares, it stands just where it was before any was paid. If banks A and B buy each other's shares, the result is the same as though each one had bought its own shares. The community, in that case, has no more banking capital than if neither of them had ever existed.

New York Restrictions. As the debts of a bank consist, for the most part, of its deposits and its circulating notes, the first legal restriction on the powers of the Bank of New York was practically that its note issues should not exceed three times the amount of its paid-up capital. If there was to be any legal restriction on note issues, this provision was sufficiently liberal. At the time when the charter was granted, and while there was no restriction whatever on its note issues, its paid-up capital was $318,250 specie, and its outstanding notes of the two kinds only $360,000 specie value. The clause in reference to the holding of real estate was a sound restriction. Since a bank's liabilities are payable on demand, its investments should be in quick assets. Real estate is not included in that category. The prohibition against trading in commodities is a repetition of the law of Massachusetts, and the reasons for it are the same. It does not, however, follow that the banker should not buy or sell bonds of the state or of the United States. Those are often highly desirable forms of investment for some part of the funds of banks, by reason of the facility with which they can be turned into cash in emergencies.

Many students find these early experiences in American banking amusing and wonder why our ancestors did not understand banking better. Possibly our ancestors might be amused by our difficulties today and wonder why we have not learned more from their errors. Recent banking history in the United States should make us reluctant to criticize the mistakes of others. A banking system which permits nearly one half of its banks to fail in twelve years may not be so superior after all.

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CHAPTER XIX

THE FIRST AND SECOND BANKS OF THE UNITED STATES

First Bank of the United States

The next event of importance in the history of banking in this country was the organization of the Bank of the United States in 1791. This institution was established on lines laid down by Alexander Hamilton, the first Secretary of the Treasury, in a report dated December 14, 1790, made in obedience to an order of the House of Representatives. This report embraced a statement of the principles which should, in his opinion, govern such an institution and of the reasons why it might be useful to the government in emergencies and to the business community at all times. Hamilton took ground against paper money issued by the government, either directly or through a bank owned by itself, but he saw no reason why the government should not be a partner in the bank, provided the management was in the hands of the private owners.

The Bank's Charter. The bank act passed by Congress followed, for the most part, the plan which he proposed. The capital was to be $10,000,000, divided into 25,000 shares of $400 each. Eight millions of the capital stock was open to subscription by the public, one fourth to be paid in specie and three fourths in government obligations bearing 6 per cent interest, the subscriptions to be paid within two years. The remaining $2,000,000 of the capital might be subscribed by the United States, payable in ten equal annual installments with interest at 6 per cent, and was so subscribed. Each shareholder was entitled to cast one vote for one share, one vote for the next two shares, and so on, no shareholder being entitled to cast more than thirty votes. Foreign share-

holders were not allowed to vote by proxy, and therefore practically could not vote at all. Not more than three fourths of the directors were eligible for the next succeeding year. The bank could not hold real estate except for the immediate accommodation of its business, but it was not forbidden to lend on mortgage security. The bank could not become indebted for a greater amount than its capital stock, over and above the amount of its deposits; that is, the deposits were not to be counted as liabilities, in estimating its right to contract debts. In case of excess, the directors were to be personally liable to creditors of the bank, but directors absent or dissenting might exonerate themselves by notifying the President of the United States and the stockholders at a meeting which they should have the power to call for that purpose. There was no other limit on the note issues of the bank than this. It meant substantially that the circulating notes might be equal in amount to the capital stock. The head of the Treasury should have the right of inspecting all the affairs of the bank except the accounts of private persons and could call for reports as often as once a week if he chose to do so. The notes of the bank should be receivable for all public dues as long as said notes were payable in gold and silver coin. The Treasury was not required to deposit the public money in the bank. The bank might have branches wheresoever the directors should see fit. It might sell any part of the public debt of which its stock was composed, but could not purchase any public debt whatsoever, nor trade in goods except such as might have been pledged for money lent and not repaid. The rate of interest on loans could not exceed 6 per cent. The government pledged itself to grant no other charter for a bank during the continuance of this one, which was limited to twenty years. The bill passed the Senate December 23, 1790, without a division. It passed the House February 8, 1791; yeas 39, nays 20. All the affirmative votes, except three, were from states north of the Potomac, mostly of Federalists; all the negative, except one, were from states south of it, mostly of Antifederalists, or Republicans, as the followers of Jefferson were called.

Constitutionality of the Bill. President Washington called for the written opinion of the Attorney General, Edmund Randolph,

on the constitutionality of the bill. It was given adversely to the measure. He then asked for that of the Secretary of State, Mr. Jefferson. This was also adverse. Jefferson held that there was no warrant in the Constitution for the incorporation of a bank by Congress, and that it could not be considered "necessary" for carrying into effect any other power expressly conferred upon Congress. He admitted, however, that if, in the President's mind, the pros and the cons were pretty evenly balanced, the doubt ought to be resolved in favor of the bill, as a matter of respect and deference to the legislative branch of the government. The opinions of Randolph and Jefferson were then sent to Hamilton for such answer as he might be able to make, and he replied at considerable length and with great force. He held that the word "necessary," as used in the Constitution, did not mean absolutely necessary, but fitting and appropriate. He said that no power had been conferred upon Congress to establish lighthouses and buoys. The power to erect and establish these things was inferred from the power to regulate commerce, and nobody questioned it; yet commerce could be regulated without lighthouses and buoys. Hamilton's arguments prevailed, and Washington signed the bill.

Reasons of Regulations. Of regulations in the charter of this bank additional to or different from those of the earlier ones, mentioned in the preceding chapter, the most important are those relating to the composition of the bank's capital and to participation of the government as a shareholder. In explanation and defense of the provision which allowed three fourths of the capital to be paid in the 6 per cent obligations of the government, Hamilton said in his report:

> The chief object of this is to enable the creation of a capital sufficiently large to be the basis of an extensive circulation and an adequate security for it. . . . To collect such a sum in this country in gold and silver into one depository may, without hesitation, be pronounced impracticable. Hence the necessity of an auxiliary, which the public debt at once presents. This part of the fund will be always ready to come in aid of the specie; it will more and more command a ready sale and can therefore be expeditiously turned into coin if an exigency of the bank should at any time require it.

The Government as a Shareholder. No exception need be taken to this argument, considering the time and circumstances of the case. Ordinarily it would not be considered good banking practice to accept anything but money as a part of the capital, even though some portion of it were subsequently invested in government bonds. Such investment should be left to the discretion of the directors after the organization is effected. Although, as Hamilton said, the bonds were intended to be the basis of circulation and an adequate security for it, they remained under the control of the bank and might be converted into money at any time.

The government's participation as a shareholder was not justified in this instance by necessity, as it had been, ten years earlier, in the case of the Bank of North America. Private persons were now eager to supply all the capital required. If pecuniary gain were a sufficient reason for the government's participation, it could have been obtained more easily, and without risk, by a tax. Even if we conceive it expedient for the government to have been a shareholder at all, the clause which allowed it a long credit in paying for its stock was indefensible. It was a speculation on the part of the government, and a successful one as it turned out, but it set the example of paying for shares with "stock notes," which was the poison of banking in the United States for the next fifty years.

Other Provisions. The provisions giving to the small shareholders greater voting power in proportion to their holdings than the large ones and requiring one fourth of the directors to retire at the end of each year were intended to prevent the bank from passing into the control of a clique. These methods of distributing power in the management of banks were very generally adopted by the state legislatures in the first half of the nineteenth century, but their importance was evidently overestimated, since they have been wholly abandoned without any harmful consequences. The provision which prohibited the foreign shareholders from voting by proxy was intended to exclude foreign influence from the management. As the owners abroad would not be likely to cross the ocean in order to vote, they would not be able to vote at all. Foreign influence was very much of a bugbear at that time, but it

does not appear that the shareholders in Europe ever betrayed any desire to vote or to exercise any influence whatever on the management.

The provision that the note issues of the bank should not exceed the amount of the capital stock seems to have been unnecessary, since no report of note issues exceeding $5,157,378, or a little more than half the capital, has reached us. Very few reports of the condition of the bank, however, were published. It is not known whether the Secretary of the Treasury ever exercised his right of inspecting, or how often he called for reports of its condition. Only two such reports were submitted to Congress by Gallatin, both being in connection with the proposal to renew the charter.

The Treasury was not required to keep the public money in the bank, but it kept about two thirds of it there, and the balance in state banks selected by the President. The parent bank was at Philadelphia. It had branches at Boston, New York, Baltimore, Norfolk, Charleston, Savannah, Washington, and New Orleans. It transferred the public funds from place to place at its own expense and paid the money on the order of the Treasurer of the United States wherever wanted.

The prohibition against the purchase of any public debt was adopted because it was believed that the bank would be able, with its large capital, to control the market and put the price of government securities up or down at its own pleasure.

Great Financial Success. The entire capital of the bank was subscribed for within two hours after the books were opened. It was a great financial success from the start. It began operations in December, 1791, and paid a dividend of 4 per cent in July, 1792. In 1809 Mr. Gallatin reported that the government had made a profit of $671,860 on the sale of its shares, besides receiving dividends at the average rate of $8\frac{3}{8}$ per cent per annum. Of the 25,000 shares, 18,000 were held abroad and 7000 in the United States. The outstanding circulation at that time was $4,500,000; specie on hand, $5,000,000; deposits, $8,500,000; loans and discounts, $15,000,000, consisting mostly of sixty-day paper.

The government, at that time, did not require the payment

of customs duties on the delivery of the goods imported, but accepted the bonds of the importers payable at a future date. The bank collected the payment of the bonds, and it refused to receive the notes of non-specie-paying banks. It thus established a standard of commercial honor and enforced it upon the banks chartered by state authority. In this way it became a regulator of the currency, but it incurred the enmity of the slovenly and fraudulent bankers of the period and of the second-rate traders and speculators by the rigidity of its rules.

Renewal of Charter Proposed. In 1809 Secretary Gallatin recommended a renewal of the bank's charter with an increase of its capital to $30,000,000. War with England was impending, and Mr. Gallatin proposed that the bank should be bound in the new charter to lend three fifths of its capital to the government if required to do so, and that it should pay interest on all government deposits in excess of $3,000,000. A contest of extreme bitterness ensued. The bank had been established in the first instance by the Federalists, who had lost political power during the past eight years, but were still strong in wealth and respectability. They had established the bank against Mr. Jefferson's ideas; and he, although yielding to Mr. Gallatin on practical measures and signing various bills supplementary to the original charter, had remained, both in his administration and in his retirement, a consistent foe to it. President Madison, who, as a member of the House, had opposed the original charter on the ground of unconstitutionality, was now disposed to look at the question as *res adjudicata*. He neither favored nor opposed a new charter. There was, however, a faction opposed to Mr. Gallatin which had its principal seat in Pennsylvania, its leaders being William Duane and Michael Leib. These men wanted to have certain changes made in the Federal offices in Philadelphia, which Mr. Gallatin refused on public grounds. The spoilsmen were determined to force Gallatin out of office if they could, and to this end they opposed everything that he favored. A clique in Maryland headed by the Secretary of State, Robert Smith, and his brother, Senator Smith, was equally bitter against Gallatin and consequently against the bank.

Opposition to the New Charter. Notwithstanding this factional opposition the usefulness of the bank was so manifest that there would have been a strong majority for the new charter, if the question had come to a vote when the subject was first taken up. On April 2, 1810, the House committee, to whom the petition of the bank for a recharter had been referred, reported favorably. On the twenty-first of the same month a motion to postpone indefinitely was defeated; yeas 46, nays 67. Then the matter was laid over informally till January 4, 1811. The state banks took advantage of the delay to bring pressure on their local representatives against a recharter. They wanted to secure the government's deposits for themselves and to get rid of the competition of the great bank in other ways. Some persons who had more political influence than credit were incensed because their paper had been refused for discount at the bank. The Republicans seized this opportunity to be revenged on the Federalists. They denounced the bank as an aristocratic, and especially as a foreign, institution. One of the most vehement speakers against the bank, on account of the foreign holdings of its shares, was Henry Clay, who said in a speech in the Senate on February 15, 1811:

> Seven tenths of its capital is in the hands of foreigners, and these foreigners chiefly English subjects. We are possibly on the eve of a rupture with that nation. Should such an event occur, do you apprehend that the English premier would experience any difficulty in obtaining the entire control of this institution?

Mr. Gallatin had exposed this fallacy two years earlier by showing that the foreign shareholders had no vote in the management and that, if the charter were not renewed, the portion of the bank's capital held by foreigners (mostly Englishmen), and amounting to $7,200,000, must be remitted to the owners at once. This demonstration of the impolicy of liberating and sending abroad more than $7,000,000 of specie at a time when we were likely to need every dollar of coin that the country contained had not the smallest effect on the Antifederalist faction, except to increase their fury. Mr. Desha, a representative of Kentucky (February 12, 1811), considered this foreign capital one of the

engines set to work to overturn civil liberty. He had no doubt that George III was a principal stockholder and that the latter would authorize his agent in this country to bid millions for a renewal of the charter. The new charter was not wanted except by a few speculating merchants who had become involved in debt and had borrowed money from "this foreign bank." The only way to save liberty, in his opinion, was "to assist in strangling this infant Hercules in the cradle." He concluded by suggesting that, unless the British government should rescind its clandestine measures affecting our rights, rather than renew the charter of the bank we ought to confiscate the British capital in it and use it in conquering Canada.

The government had sold its own property in the bank to foreigners at a large premium. The last sale of 2220 shares had been made in 1802 at 145 to Sir Francis Baring, who had resold them in England at 150. The purchasers bought them as shares in an active concern. Of course they were charged with knowledge that the charter would expire in 1811 and that it might not be renewed; but it was not creditable in congressmen to declaim against foreign holdings as a reason for refusing a charter, when the government had pocketed a bonus of nearly $700,000 from these same foreigners in the expectation that it would be renewed.

Renewal of the Charter Refused. The bank was not without friends among the Republicans. The best speech made for the new charter was that of Senator Crawford of Georgia — a masterly effort from nearly all points of view. Senator Lloyd of Massachusetts made a strong speech on the same side, supplying some interesting items of banking intelligence. As showing the great convenience to the government of an apparatus by which payments could be made at specie value everywhere, without cost for the transmission of funds, he said that Penobscot bank notes would not pass in Boston at all times, that Boston bank notes passed with difficulty in New York and Philadelphia, while those of New York were not readily current in Washington. Mr. Clay held that Congress had no power to grant the original charter or to renew it. On March 2 he presented a report denying a petition of the bank for an extension of its charter sufficiently long to wind

up its affairs. The report says that, "holding the opinion (as a majority of the committee do) that the Constitution did not authorize Congress, originally, to grant the charter, it follows, as a necessary consequence of that opinion, that an extension of it, even under the restrictions contemplated by the stockholders, is equally repugnant to the Constitution." Five years later he was a strong advocate of the charter of the second Bank of the United States, saying that "that which appeared to him in 1811 under the state of things then existing not to be necessary to the general government, seemed now to be necessary under the present state of things. Had he then foreseen what now exists and no objection had lain against the renewal of the charter other than that derived from the Constitution, he should have voted for the renewal." [1]

The vote was taken in the House January 24, 1811, on a motion to postpone indefinitely, which motion prevailed by a majority of one, 65 to 64. The vote in the Senate on a similar bill (February 20) was a tie, — 17 to 17, — whereupon George Clinton, the Vice-President, gave the casting vote against the bank. It was accordingly put in liquidation. It paid the shareholders $434 for each share of $400, that is, a surplus of nearly 9 per cent. Thus the country lost a most valuable financial institution. There was straightway a mushroom growth of new state banks to fill the void, so that one hundred and twenty were chartered and put in operation within three years. The government went to war in 1812, leaning upon the state banks for financial support. Most of them suspended payments in September, 1814, after which the country wallowed in irredeemable paper for several years. If the charter of the great bank had been renewed in 1811, specie payments would probably have been maintained throughout that crisis. Mr. Gallatin, writing many years later, said:

> It is our deliberate opinion that the suspension might have been prevented at the time when it took place had the former Bank of the United States been still in existence. The exaggerated increase of state banks, occasioned by the dissolution of that institution, would not have occurred. That bank would as before have restrained within proper bounds and checked their issues, and through the means of its offices (branches) it

[1] *Annals of Congress, 1815–1816*, p. 1194.

would have been in possession of the earliest symptoms of the approaching danger. It would have put the Treasury Department on its guard; both acting in concert would certainly have been able at least to retard the event, and as the treaty of peace was ratified within less than six months after the suspension took place, that catastrophe would have been altogether avoided.

By restraining the issues of the state banks within proper bounds Mr. Gallatin meant that the bank would have presented their notes promptly for redemption, thus keeping their issues within the limit of safety.

Second Bank of the United States

Financial Distress in 1814. The second war with Great Britain began in 1812. Specie payments were suspended in September, 1814, by nearly all the banks south and west of New England. Their notes fell to a discount ranging from 10 to 30 per cent. The government had defaulted on the interest of the public debt. Its money was mainly in the suspended banks. The financial condition of the country was desperate.[1] Naturally the statesmen of the day bethought themselves of the Bank of the United States. On October 17 the Secretary of the Treasury, Mr. Dallas, recommended that a national bank be established with a capital of $50,000,000, of which one tenth should be specie and the remainder government securities of one kind and another. It was to begin under a suspension of specie payments. As Daniel Webster said in the debate: "It was to commence its existence in dishonor; it was to draw its first breath in disgrace." Webster's speech of January 2, 1815, was fatal to this bill, for it was rejected by a tie vote. A reconsideration was moved and carried, and the bill was amended by striking out the clause requiring a specific loan to the government and the one authorizing the suspension of specie payments. In this shape it was passed by both houses; but it was

[1] "The government might possess immense resources in one State and be totally bankrupt in another; it might levy taxes to the amount of the whole circulating medium yet have only its own notes available for payment of debt; it might borrow hundreds of millions and be none the better for the loan." — Henry Adams, *History of the United States*, Vol. VIII, p. 215.

vetoed by President Madison because it did not furnish sufficient financial aid to the government. The Senate thereupon took up the original Dallas Bill and passed it on February 11. But news that a treaty of peace with Great Britain had been signed at Ghent reached Washington on the thirteenth, and on the seventeenth the House, by a vote of 74 to 73, indefinitely postponed the measure.

The Bank Charter of 1816. As the war had come to an end, the Treasury was no longer in the desperate condition of the preceding year; yet Mr. Madison, in his message of December 5, 1815, suggested a national bank as an instrumentality for bringing about a resumption of specie payments. A bill for this purpose was reported to the House by Mr. Calhoun on January 8, 1816. It passed both houses and was signed by President Madison on April 10, 1816. The capital was to be $35,000,000, four fifths to be subscribed by private persons and one fifth by the United States. There were to be twenty-five directors, five of whom should be appointed by the President of the United States, by and with the advice and consent of the Senate, and twenty elected by those stockholders who resided in the United States. Foreign stockholders could not vote either in person or by proxy. Both the notes and the deposits of the bank were to be paid in specie. It was authorized to issue post notes not smaller than $100 each, payable not more than sixty days after date. No circulating notes were to be issued of less amount than $5. All notes were to be signed by the president and the principal cashier. The notes should be receivable in all payments to the United States. The bank was to provide facilities for transferring the public funds, without expense to the government, to any places within the United States where payments were to be made. Section 16, regulating the public deposits, provided

> That the deposits of the money of the United States in places in which the said bank or branches thereof may be established shall be made in said bank or branches thereof, unless the Secretary of the Treasury shall at any time otherwise order and direct; in which case the Secretary of the Treasury shall immediately lay before Congress, if in session, and if not, immediately after the commencement of the next session, the reasons of such order or direction.

The bank was forbidden "to purchase any public debt whatsoever." In case the bank should fail to pay any note, obligation, or deposit in specie on demand, it was to forfeit 12 per cent per annum on the amount of the claim. The government's subscription of $7,000,000 could be paid either in money or in its own obligations bearing 5 per cent interest. It was, in fact, wholly paid by the latter, that is, by a stock note, and the note was not fully paid until 1831. The bank was to pay the United States the sum of $1,500,000 as a bonus for the charter, which was to be exclusive and was to continue twenty years. It was forbidden to pay dividends to stockholders whose shares were not fully paid for. The directors were authorized to establish branch banks wheresoever, in the United States or the territories thereof, they should see fit.

Of the foregoing regulations the most important was the one which required the deposits to be paid in specie. Strictly speaking, all obligations payable in dollars were payable in specie. There was no other legal-tender money than gold and silver coin. Yet the conception prevailed universally that while a bank ought to pay its notes in specie on demand, it might properly pay its deposits in the notes of other banks, near or remote, provided the latter paid their notes in specie. Consequently, even when the banks were solvent, there were two kinds of currency in circulation in every city: (1) specie and the notes of the local banks, which were at par; (2) the notes of banks of other cities and states, which were at a discount greater or less according to the difficulty of securing their redemption. This discount was not observed by the masses of the people. To them one dollar was as good as another. Anything that would pass was gladly accepted. But to merchants the discount on out-of-town bank notes was a considerable expense, and they sought to recoup themselves by charging enough for their goods to cover the loss. Daniel Webster was opposed to the pending bill in any shape, but he struck a blow for sound principles of currency by securing the adoption of an amendment providing that the deposits as well as the notes of the Bank of the United States should be paid in specie. It did not abolish everywhere the bad practice of

having two kinds of bank notes in circulation at the same time and place, — one at par and the other at a discount, — but it abolished it in the operations of the great bank, and it established a standard of good banking which was never wholly lost sight of, and which reached its fulfillment in the Suffolk Bank system a few years later. Mr. Webster made another contribution to sound finance during this session of Congress by securing the passage of a bill requiring the payment of all government dues in specie or in Treasury notes or in notes of the Bank of the United States. Previously any bank notes that were current at the places where the duties and taxes were collected had been accepted by the Treasury, although no banks except those of New England were at that time paying specie.

Post Notes. The power of the bank to issue post notes was curtailed in the charter, both as to the size of the notes and the time they should run. Post notes were bank notes payable, not on demand, but at a future time. They were a means of borrowing money from the public for fixed periods with or without interest. They were in common use in the first quarter of the nineteenth century. Sometimes the words containing the date of payment were printed in very small type, so that they were not readily seen and were accepted by some persons for demand notes. The recipients were thus defrauded. The restriction of post notes to denominations of $100 or more was made in order to prevent deception, since anybody receiving a note as large as $100 would be pretty sure to examine it carefully and to know whether it was payable on demand or otherwise.

Branch Drafts. The provision requiring that all notes issued by the bank should be signed by the president and the principal cashier was adopted because that was the customary way of issuing such notes. There was a similar provision in the charter of the earlier bank. The fact that there are physical limitations on the power of a man to write his name, and that this bank was three and a half times as large as the former one, did not occur to anybody until after the bank had gone into operation. Then it was discovered that no human being could perform the necessary labor. The bank officers asked Congress to amend the law

so as to allow other persons to sign notes. There was no reason why the request should not have been granted, but Congress took no action. Consequently the bank adopted the practice of issuing drafts of $5 and $10 at the several branches, drawn on the parent bank. These drafts passed into circulation, to the amount of several millions. When the subject of a recharter of the bank came before Congress the issuing of these drafts was assailed as a violation of law, but an opinion had been obtained from Horace Binney, Daniel Webster, and William Wirt, before any such drafts were issued, that they would be legal.

The provision in reference to the deposit of the public funds in the bank became very important in the subsequent bank war in President Jackson's administration, and will be considered in connection with that event.

Penalty for Suspension. The clause imposing a penalty of 12 per cent per annum on any failure to pay specie on demand for any obligation of the bank was intended to make the suspension of specie payments unprofitable. There were in existence at that time many banks which were doing a flourishing business and actually paying dividends to their stockholders, but were not redeeming their own notes or paying their deposits, except in the depreciated notes of other banks. If they had been under a penalty of 12 per cent per annum on all their defaulted paper, they would have made haste to resume specie payments.

Bonus for Charter. It might not be good policy now to grant exclusive privileges to a private bank, but if for any reason it were granted, it would be proper to exact a bonus from the beneficiaries. The exclusive privilege granted to the Bank of the United States consisted of the deposits of the government without interest, of the right to establish branches without consulting the state governments, and of the credit which those extensive privileges gave it in the eyes of the people and of foreign nations.

Branch Banks. The bank established twenty-five branches under the authority granted to it. These were extremely useful to the country in the way of distributing the capital of the bank to the places where it was most needed. Thus, if there was a stronger demand for money at New Orleans than at Philadelphia, knowl-

edge of that fact would be quickly conveyed by the branch at the former place to the parent bank, and funds could be quickly transferred, either from the parent bank or from any branch where the demand was less pressing. One advantage of branch banking consists in the facility which it affords for gaining knowledge of the relative needs of business in different places and of responding promptly to those needs through agents already on the ground possessing the necessary local knowledge. The benefit is shared equally by the borrower and the lender. Branch banking tends to equalize the rates of interest among different localities in the same country.

Scandalous Beginnings. The charter of the bank was made the basis of a shameful speculation, which brought it to the verge of ruin within two years. The law provided that the stock subscriptions of individuals should be paid in three installments: 30 per cent at the time of subscribing, 35 per cent in six months, and 35 per cent in twelve months. One fourth of the private subscriptions ($7,000,000) were to be paid in specie and three fourths in specie or in the funded debt of the United States. When the second installment became due only $324,000 was paid in specie where $2,800,000 was due; and for the third, only a trifling amount of specie or of anything else. The bank had discounted the notes of the stockholders on the pledge of their stock to the amount of more than $8,000,000. It also allowed the stock to be sold and transferred by the subscribers before it was paid for. This caused a great deal of trading in shares and a rapid advance in the price. When they rose above par the bank loaned more than par on them. In August, 1817, it authorized loans as high as $125 on $100 to shareholders who would furnish other security for the extra $25. This was easily furnished, as the shareholders endorsed for one another.

The provision of the charter prohibiting dividends on shares that had not been paid in full had been systematically violated. The Baltimore branch had been defrauded, by its president and cashier, of $1,600,000. The bank at this time was really insolvent, and it was held up only by the government's deposits, which

amounted to $8,000,000. It was saved from impending bankruptcy by Mr. Langdon Cheves of South Carolina, who became its president in March, 1819. One of his measures of relief was the borrowing of $2,500,000 in Europe. Another was the requirement that the loans made on the security of the bank's shares should be paid at the rate of 5 per cent every sixty days. "Even this small reduction," said Mr. Cheves in his first official report, "was the subject of loud, angry, and constant remonstrance among the borrowers, who claimed the privileges and favors which they contended were due to stockholders."

The Bank in 1829. The bank was put in a solvent condition by Mr. Cheves, and in the course of the next ten years became established in the confidence of the business community and interwoven in the policy of the nation as fully as the leading banks of the Old World are now in their respective countries. It had five hundred employees of high standing and social position. Nicholas Biddle of Philadelphia became its president in 1823.

Notwithstanding the cerulean aspect of the sky overhead, there was a cloud gathering on the western horizon which is depicted by one historian of the bank in the following terms:

> Democracy, devoted to the principle of equality, is opposed to all forms of privilege, and to none more than to a monetary monopoly. When it is recollected that the Bank of the United States was at that time the one great monopoly in the country, and that against it were directed all the passionate opposition and fear which to-day [1903] fall upon banks, railroad companies, and trusts, its danger from the rising power of that fierce Democracy which, with Andrew Jackson, swept over the country, may be faintly measured. The Democracy was positive that the bank was a menace to the political and social interests of the United States; that it made the rich richer and the poor poorer; that it depressed the weak and made the potent more powerful; that it accentuated the differences of society, creating on the one hand a powerful aristocracy and on the other hand an impotent and beggarly proletariat. These opinions were especially prevalent in the West, where Democracy was most powerful.[1]

[1] Catterall, *The Second Bank of the United States*, p. 167.

Before he came to Washington as President, Jackson entertained the opinion that Congress had not the constitutional power to charter a bank outside the District of Columbia. He had also expressed a dislike to all banks.[1]

The Bank War

The Question of a Recharter. The charter of the great bank, granted in 1816, was to expire in 1836. When General Jackson came to Washington as President in 1829, the subject of a renewal of the charter had not been discussed either in Congress or in the press. Probably nobody had given it serious thought. There had, however, been some conflicts between the bank and the state legislatures of Ohio, Kentucky, and Georgia, prompted by the jealousies of the local banks. The latter had accused the great bank of "accumulating their notes" and then presenting them for redemption in coin, thus making money scarce and disabling them from lending freely to their own customers. But this accumulating of the notes of the local banks resulted from receiving them as deposits. Not to have received them would have discredited, and perhaps ruined, the banks issuing them. To have received them as deposits and not to have presented them for payment would have been to transfer the capital of the great bank to the local banks without interest. From this dispute had arisen hostile legislation and prolonged litigation; but the conflicts had ceased, and the bank was at the height of its popularity and strength at the beginning of Jackson's administration.

The first visible sign of the coming trouble was contained in a letter written by Levi Woodbury, Senator from New Hampshire, to Samuel Ingham, Secretary of the Treasury, making complaints against Jeremiah Mason, one of the great jurists of New England, who was the president of the branch bank at Portsmouth. Woodbury and Mason were political rivals. The former accused the latter of bad manners, of partiality in the making of loans, and of using his financial influence for political ends. Mr. Ingham referred the letter to Nicholas Biddle, president of the bank, and

[1] Catterall, *The Second Bank of the United States*, pp. 183–184.

added some comments of his own, implying that he thought there might be some truth in Woodbury's complaints.

Three weeks later Mr. Isaac Hill of New Hampshire, second Comptroller of the United States Treasury, wrote a letter asking for a change in the board of directors of the Portsmouth branch of the bank and for the removal of Mr. Mason as president. The letter was addressed to two of Hill's friends in Philadelphia, who were requested to present to the parent bank two petitions to that end, signed by citizens of New Hampshire, which were enclosed in his letter. Hill had been the editor of a rancorous Democratic newspaper and latterly president of a small bank in Concord, for which he wished to secure the pension deposits, which were placed by law in the Portsmouth branch of the great bank.

A few months later Amos Kendall, fourth auditor of the Treasury, wrote a letter to Ingham, making accusations, which were afterward shown to be false, against the Louisville branch of the bank, charging that it had interfered in an election there in 1825. These letters proved that there were politicians in Washington, near to the President, who had private and sinister ends to gain by attacking the bank. They accomplished their object, by persuading him that the bank was taking part in politics secretly and against himself. The charge was false; the bank never meddled with politics until compelled to do so in self-defense. It is possible, however, that its enemies believed that it was doing so.[1]

Jackson's First Message. Biddle was led to believe, by conversations with Major Lewis, a close friend of Jackson, and also with Jackson himself, that the latter would favor, or at all events not oppose, a renewal of the bank's charter. Yet an undated paper in Jackson's handwriting, addressed to Biddle, was subsequently

[1] "When, in any arena, a power is present which might be of decisive importance as an ally of one party or the other, it is inevitable that its alliance will be contended for by them. Its efforts to remain neutral will be vain and will expose it to greater danger from both than an alliance with either. Either party which thinks that it has lost the chance of winning the alliance will turn against the intervening party with fierce animosity and will try to destroy it or drive it from the arena. This is what happened in the case of the United States Bank." — Sumner, *History of Banking in the United States*, p. 192.

found among his manuscripts, saying that he (Jackson) had read the opinion of Chief Justice Marshall affirming the constitutionality of the bank, and that he could not concur with it. Biddle was greatly surprised to read in Jackson's first annual message to Congress, December 8, 1829, the following paragraph:

> The charter of the Bank of the United States expires in 1836, and its stockholders will most probably apply for a renewal of their privileges. In order to avoid the evils resulting from precipitancy in a measure involving such important principles, and such deep pecuniary interests, I feel that I cannot, in justice to the parties interested, too soon present it to the deliberate consideration of the Legislature and the people. Both the constitutionality and the expediency of the law creating this bank *are well questioned by a large portion of our fellow-citizens*; and it must be admitted by all, that it has failed in the great end of establishing a uniform and sound currency.

The statement that the bank had failed in the great end of establishing a uniform and sound currency puzzled everybody, since that was the very thing that the bank had accomplished with conspicuous success. It remains doubtful to this day what Jackson meant by it. Albert Gallatin tried to find out from Jackson himself in what particular the bank had so failed, but could glean only mild surprise that such a question should be asked. Gallatin inferred that Jackson meant that the bank had not entirely abolished the rate of exchange between different commercial centers.[1]

The bank had been established expressly to restore specie payments. This end had been accomplished mainly through its efforts and example. In order to facilitate resumption it had assumed at par $10,809,000 of government deposits then in suspended banks, at a cost to itself of some $200,000.[2] The whole banking system of the country had been wonderfully toned up since it came into the field. The rate of exchange between the

[1] The average rate was probably from par to 1½ per cent, the average for 1829 being less than ¾ of 1 per cent (Catterall, *The Second Bank of the United States*, p. 141).

[2] Clarke and Hall, *Legislative and Documentary History of the Bank of the United States*, p. 777.

most widely separated commercial centers ranged between par and one half of 1 per cent, — a condition which, according to a report of the Senate Committee on Finance, existed in no other country.[1]

The McDuffie Report. On December 10 the part of the President's message relating to the Bank of the United States was referred by the House to the Committee of Ways and Means. Its chairman (McDuffie of South Carolina) made a report on April 13, 1830, controverting, in respectful and temperate terms, the President's position at all points. The report was strong in its opposition to the statement that the bank had failed in the great end of establishing a uniform and sound currency. It was easy to prove by the market quotations how far superior the currency was then to that of any previous time, and especially to that of the period immediately before the establishment of the bank, when the paper currency of the middle states ranged from 7 to 25 per cent below par. The report went beyond a mere statement of the fact that the currency had been put on a uniform and sound basis. It argued strongly that this improvement had been brought about by the Bank of the United States and would not have taken place otherwise. It said:

The Committee are aware that the opinion is entertained by some that the local banks would, at some time or other, either voluntarily or by the coercion of the state legislatures, have resumed specie payments. In the very nature of things this would seem an impossibility. It must be remembered that no banks ever made such large dividends as were realized by the local institutions during the suspension of specie payments. A rich and abundant harvest of profit was opened to them, which the resumption of specie payments must inevitably blast. While permitted to give their own notes bearing no interest, and not redeemable in specie, in exchange for better notes bearing interest, it is obvious that the more paper they issued the higher would be their profits. The most powerful motive that can operate upon moneyed corporations would have

[1] "Before this bank went into operation exchange was from eight to ten per cent either for or against Charleston, which was a loss, to the planter, of that amount on all the produce of Georgia and South Carolina and indeed, you might say, all the produce of the Southern and Western states." — Letter of a Charleston merchant to the chairman of the Committee of Ways and Means (Ibid. p. 760).

existed to prevent the state banks from putting an end to the very state of things from which their excessive profits proceeded. Their very nature must have been changed, therefore, before they could have been induced to coöperate voluntarily in the restoration of the currency. It is quite as improbable that the state legislatures would have compelled the banks to do their duty. . . . The banks were, directly and indirectly, the creditors of the whole community, and the resumption of specie payments necessarily involved a general curtailment of discounts and withdrawal of credit which would produce a general and distressing pressure upon the entire class of debtors. These constituted the largest portion of the population of all the states where specie payments were suspended and bank issues excessive. Those, therefore, who controlled public opinion in the states where the depreciation of the local paper was greatest were interested in the perpetuation of the evil.

The report of the committee was sustained by a decisive majority of the House, and a similar one from the Senate Committee on Finance was sustained by that body.

Biddle and Ingham. There was some correspondence between Biddle and Ingham in reference to the charges made by Woodbury and Hill against Jeremiah Mason. Biddle easily proved that the charges were without foundation. It would have been well for him if he had rested there; but he thought that he had detected in Ingham's letters the assertion of a right on the part of the administration to control or influence the bank's selection of its officers, and he wished to let Ingham know that this was a mistake. He therefore added that the bank was under no responsibility to the Secretary of the Treasury respecting the political opinions of its officers. Ingham retorted that the Secretary had power to remove the government's deposits from the bank, and that he might exercise that power, if he were convinced that the bank was exercising political influence. In his literary and forensic zeal Biddle had overlooked the power of coercion that lay in the hands of the Secretary. He was worsted in this encounter, but his error of tactics was not necessarily fatal.

Jackson's Messages. In his message of 1830 the President again alluded to the bank, and suggested that a bank might be established as a branch of the Treasury Department, in order to

avoid constitutional objections. Such a bank, he said, having no means to operate on the hopes, fears, or interests of large masses of the community, would be shorn of the influence which made the existing bank formidable. A motion was made in the House to refer this part of the message to a special committee, on the ground that the Committee of Ways and Means had already given its opinion in favor of the present bank. This motion was voted down, by 108 to 76.

In 1831 the message took a milder tone, saying that the President had felt it his duty frankly to disclose his opinions on the subject in former messages.

> Having thus conscientiously discharged a constitutional duty [he continued], I deem it proper on this occasion, without a more particular reference to the views on the subject then expressed, to leave it for the present to the investigation of an enlightened people and their representatives.

The bank's charter ran till 1836. There is good reason to believe that if Biddle had postponed, until after the presidential election of 1832, his attempt to procure its renewal, he might have obtained it without any serious opposition and with the concurrence of the President. All the members of the cabinet, except Taney, were favorable to the bank, and two of them (McLane and Livingston, of the Treasury and State Departments) actively so. Both of these urgently counseled him not to stir up the fighting element in Jackson, and not to incur the risk of embroiling the bank in the political campaign. In a letter to James Hamilton (December 12, 1831), Jackson said: "Mr. McLane and myself understand each other, and have not the slightest disagreement about the principles which will be a *sine qua non* in my assent to a bill rechartering the bank." [1]

Biddle was a headstrong character and was the autocrat of the bank. He had always maintained heretofore that the bank should not meddle with politics. He had once affirmed in writing that if the bill for a new charter were brought forward prematurely, it would be "blended up with the election and become one

[1] Catterall, *The Second Bank of the United States*, p. 213.

of those political matters judged exclusively by party considerations." He was warned by McLane that if the bill were forced upon Jackson before the election he would regard it as a challenge and would veto it. Why, then, did Biddle, with this enormous responsibility resting upon him, take the risk of giving the challenge?

Henry Clay and the Bank. In the first place the party opposed to Jackson (the National Republicans) made the bank question an issue in their platform, adopted at the Baltimore Convention in December, 1831. They declared that the bank was a great, beneficent, and necessary institution, and that the President was "fully and three times over pledged to the people to negative any bill that might be passed for rechartering the bank." This convention nominated Henry Clay for President in opposition to Jackson. Mr. Clay, however, was not primarily an agent in dragging the bank into politics. Mr. Catterall shows that he deprecated the policy of making application for a new charter before the presidential election. He held to that opinion till the eve of the Baltimore Convention, but he sided with his party, whose candidate he was, when its platform was promulgated.

The bank had been, until this time, a nonresistant, and that was one reason why Jackson's animosity had cooled. It was still reluctant to enter the political arena. Biddle hesitated, but was finally persuaded by the argument that the bank must put itself in the hands of its friends rather than of its enemies. Accordingly he wrote a memorial asking for a renewal of the charter, which was presented to the Senate on January 9, 1832. The old charter still had four years to run. The motion for a renewal of it at this time was premature, unless the friends of the bank wanted to make it a political issue against Jackson in the presidential campaign.[1]

[1] "The position then was that Jackson had made the challenge, had receded from it, and his opponents had taken it up and turned it as a challenge against him. What would he do? It seems that no one who knew the facts in his career could doubt what he would do. He would return to the issue and would fight it out regardless of all considerations whatever, to a definite and conclusive victory or defeat. That is what he did do." — Sumner, *History of Banking in the United States*, p. 200.

Affair of the 3 Per Cents. Before any vote was taken in Congress, however, an incident occurred which led Jackson to think that the bank was financially unsound. On March 24, 1832, Mr. Asbury Dickins, acting Secretary of the Treasury, notified Mr. Biddle confidentially that the government desired to apply a portion of its money deposited in the bank to the payment of the outstanding 3 per cents, a remnant of the Revolutionary debt. The public deposits now amounted to $12,000,000, and the debt to be paid off was $9,000,000. Secretary McLane gave Mr. Biddle formal notice of this purpose on July 25, and Biddle replied that the bank would take the necessary steps to get possession of the bulk of the 3 per cents and would act in accordance with the wishes of the government. In the meantime General Cadwalader, a director of the bank, had been sent to London to make a private arrangement with the Barings for postponing the payment of $5,000,000 of the debt. A contract was made with that house to extend as many of the 3 per cents as possible and to buy up the rest. This was a violation of the bank's charter, which prohibited it from purchasing any public stocks. It was equally a violation of the understanding with the Treasury, since, under the Baring contract, the 3 per cents would be kept alive, the bank paying the interest and being responsible eventually for the principal. Money was worth 7 per cent to the bank, and by this scheme it would obtain the use of the government's money at 3 per cent.

It was Biddle's intention to keep the matter secret, but the Baring circular was published in the newspapers in October. Biddle immediately disavowed Cadwalader's contract with the Barings, in so far as related to the buying of the debt, and proposed a different arrangement. Secretary McLane called on Biddle for explanations, and the latter replied that he had taken this step for the public good. A visitation of cholera was expected, which threatened, he said, "if it continued, to press with peculiar force on the public revenue, more especially as the demand on account of the foreign holders of 3 per cents on the first of October, at New York and Philadelphia alone, would have exceeded five millions of dollars." So the bank had interposed itself as a providence between the people and the government because

the cholera was expected, and had done so in a clandestine manner. Jackson was fully justified in considering this a subterfuge, and was freshly exasperated by it; but it did not follow, as he supposed, that the bank was insolvent.

The Charter Approved but Vetoed. The affair of the 3 per cents was going on while Congress was acting on the new charter. On June 9 the bill passed its third reading in the Senate, by 25 to 20. Now the friends of the bank, who were also friends of the President, made one more effort to prevent a conflict. They entreated Mr. Biddle to pause and let the bill rest until after the election. If he had had his choice, he might have taken this advice; but he was "threatened with opposition from the party, then his chief reliance, unless he went on." They said that Jackson would not dare to veto the bill, and that if he did, he would be hurled from power by an indignant people. So they passed the bill in both houses and sent it to the President on July 6. Then one more challenge was given to him. The House on June 28 had voted to adjourn on July 9, and the resolution was not acted on by the Senate until the ninth. Then Mr. Webster said that there was an important measure under consideration by the executive, which he was not compelled to return in less than ten days. The resolution of adjournment was then amended to the date July 16. This was equivalent to saying to the President: "You must sign the bill or veto it. You shall not kill it silently."

The next day, July 10, the veto came. It was perfectly adapted to its purpose of winning votes. It dealt with the bank as a monopoly, ringing all possible changes on that term and in the most skillful manner. It is supposed that Amos Kendall wrote it; for, although Jackson was no demagogue, this was a most demagogical appeal. The friends of the bank were in high glee when they saw it. Biddle wrote to Clay:

> I have always deplored making the bank a party question, but since the President will have it so, he must pay the penalty of his own rashness. As to the veto message, I am delighted with it. It has all the fury of a chained panther biting the bars of his cage. It is really a manifesto of anarchy, such as Marat or Robespierre might have issued to the mob of the Faubourg St. Antoine; and my hope is that it will contribute to

relieve the country from the dominion of these miserable people. You are destined to be the instrument of that deliverance, and at no period of your life has the country ever had a deeper stake in you. I wish you success most cordially, because I believe the institutions of the Union are involved in it.[1]

This was not the first time that Biddle's literary talents had betrayed him. Four months later he and Mr. Clay and the bank went down with a grand crash, for Jackson was re-elected by 219 electoral votes, to 67 for all others. Mr. Clay received 49. Nobody at the present day considers Biddle a good banker. Few persons regret the Bank of the United States; but if its taking off was a national misfortune, Mr. Clay and his party were as much to blame as General Jackson and his party. They made the bank a political issue at a time when defeat to them meant destruction to it. The attempt to pass the bill over the veto failed in the Senate, 22 to 19.

The bank war continued through the whole of Jackson's second administration, embracing several exciting episodes, but they belong rather to the political than the financial history of the time. Early in 1833 the President decided that the government's deposits ought to be removed from the bank. He suggested this project to Secretary McLane, who demurred. The matter was brought up in the cabinet, and two thirds of the members sided with McLane. A vacancy happening in the State Department, McLane was transferred to it, and William J. Duane was appointed Secretary of the Treasury. Duane had been opposed to the original charter of the bank and to the recharter, but he looked upon the public deposits as a part of a contract between the government and the bank. He declined to transfer them, when requested by the President to do so. Consequently he was removed from office, and Roger B. Taney, the Attorney General, was placed at the head of the Treasury Department. Taney began, in the autumn of 1833, to draw out the money for ordinary disbursements, depositing the ordinary receipts in certain state banks which had been selected for the purpose.

[1] Parton, *Life of Jackson*, Vol. III, p. 411.

The Pennsylvania Charter. When all hope of a renewal of the national charter had disappeared, Mr. Biddle sought and obtained a charter from the state of Pennsylvania. An enormous bonus was paid to the state — $2,500,000 in cash and a promise of $100,000 per year for twenty years, besides various subscriptions to the stock of railroads, canals, and turnpikes in the state. Senator Benton said that every circumstance of its enactment betokened bribery of the members who passed it and an attempt to bribe the people by distributing the bonus among them. The government was still a shareholder in the bank to the par value of $7,000,000, and there was some trouble in withdrawing this money, but it was paid in four annual installments at the rate of 115.58. New stock was sold in place of it, so that the capital remained at $35,000,000, which was a far greater sum than could be used in ordinary banking operations in its restricted territory. Jackson's plans were now fully carried out, except that the bank was not killed. The government had recovered every dollar of its own money, and the bank was on the way to kill itself more miserably than even its enemies could have wished.

Final Collapse. When the bank found itself, with its enormous capital, restricted to Philadelphia and the neighboring country, it gradually changed its character. Hitherto it had confined itself to its proper business, discounting commercial paper, buying bills of exchange, and dealing in coin and bullion. Now it advanced money largely on stocks. Before March, 1836, it had $20,000,000 thus invested. The country was in the fever of speculation which culminated in the panic of 1837, and the bank was the leading speculator. It suspended in 1837, in common with nearly all the other banks; again in 1838; and a third and last time in 1841. Its liquidation was protracted through fifteen years. It paid its creditors in full, principal and interest, but the shareholders lost every penny. Biddle lost all his own money. His town house and his country house were sold by the sheriff. Old friends cut him on the street. He was even indicted by the grand jury for conspiracy to defraud the shareholders of the bank, but the indictment was quashed. He died in 1844, poor and brokenhearted.

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CHAPTER XX

MAKING THE BANK NOTE SAFE

The Suffolk Bank System

The growth and development of banking in Massachusetts not only form an interesting chapter in our economic history, but give us suggestions of the highest importance in the consideration of current banking problems.

Stock Notes. During the first half of the nineteenth century there was a struggle in Massachusetts, as in nearly all the states, to compel the subscribing shareholders of banks to pay for their shares. Banking was the favorite form of speculation. A bank lends its notes to borrowers and receives interest on them, but the notes are themselves debts of the bank. Thus banking presented itself to the public mind seductively as a method of living on the interest of the debts you owe. Bank charters were eagerly sought. The speculators in shares were not slow to perceive that, if they could put their own stock notes into the bank instead of cash, they might get something for nothing.[1] If the bank survived, the dividends would probably exceed the interest on the stock notes, the difference being a clear gain to the shareholders, without any investment of their own money. The policy of Massachusetts in this regard was generally sound, but it was variable, showing that some people could get inserted in bank charters privileges which others could not get. In 1795 the charter of the Nantucket Bank contained a provision that no stockholder should be allowed to borrow at the bank, as or after any installment should become due, until he should have paid his full proportion of such installment. This did not, however, prevent borrowing the money after it had

[1] Professor Sumner (*History of Banking in the United States*, p. 61) found two state bank charters, both in Louisiana, which expressly authorized the payment of the capital in stock notes, one dated 1811 and the other 1818.

been paid in. In the following year the Merrimac Bank of Newburyport was chartered with a capital stock of not less than $70,000, nor more than $150,000. Here we find an attempt to evade the principle affirmed in the charter of the Nantucket Bank. No loans were to be made to shareholders until they had paid their proportion of $70,000. If they should choose to have a capital of $150,000, they might borrow from the bank itself all except the first $70,000.

Struggle to Compel Payment of Capital Stock. There was much contrariety of legislation until 1804, when several charters contained an express provision that no money should be lent to anybody until satisfactory evidence was presented to the governor and council "that the whole capital stock aforesaid is actually paid in and existing in gold, silver, or other coined metals, in their vaults." Even this provision was not sufficient; for it was proved in more than one case that banks borrowed the entire amount of their capital in gold and silver coin from other banks and, having exhibited it to the public officers, returned it to the rightful owners the same day. Accordingly, in 1811, a clause was inserted in bank charters requiring the directors to take an oath that the money paid in was intended to remain there as the capital of the bank. This proviso was considerably amplified and strengthened in 1813. Three commissioners were to be appointed by the governor to count the gold and silver and take the oath of the directors that it had been paid in, bona fide, by the stockholders as the bank's capital and for no other purpose, and that it was intended to remain there. In 1822 it was enacted that no dividends should be declared until the whole capital was paid in.

Chaos of Banking in New England. The currency was now very chaotic. Country bank notes were at a discount of 1 to 5 per cent in Boston, according to the difficulty of sending them home for redemption. It was an advantage to a bank to place itself at a long distance from the centers of business and on the worst possible road, to avoid redemption.[1] Sharpers and speculators seized

[1] "What New England did in the first decade of the century is what the middle states did in the second and the Southwest in the fourth and the Ohio states in the sixth." — Sumner, *History of Banking in the United States*, p. 37.

the opportunity to make gains. They bought or established banks for the purpose of putting notes in circulation at long distances from their place of issue, in order to postpone the redemption of them. They swapped notes with one another for this purpose. The Boston Exchange Office was incorporated in 1804 to facilitate the business of swapping bank notes. One Andrew Dexter bought up the stock of the Exchange Office and used it as a machine for swapping the notes of different banks owned or controlled by him, till he brought ruin upon the banks, the community, and himself. His failure was one of the most direful events in the economic history of New England.

The New England Bank, which was incorporated in 1813, gave the first impulse to what was afterward known as the Suffolk Bank system, by publishing an advertisement that it would receive country bank notes and send them home for redemption, charging only the actual cost. The average cost on those of Massachusetts was one half of 1 per cent. This became the rate of discount on such notes in Boston. On those of other New England banks it ranged from 1 to 5 per cent.

The Suffolk Bank. The country banks discounted commercial paper in Boston, as well as at home, paying out their own circulating notes therefor. As these notes were below par in Boston, but were generally accepted by merchants, Gresham's law came in play; that is, the worse money drove out the better. The notes of the Boston banks were immediately returned to them by depositors, because they were received at par, but those of the country banks were paid out by manufacturers and traders for wages and as change, and thus kept in circulation. In the year 1818, when the Suffolk Bank was chartered, the Boston banks, seven in number, having more than half the banking capital of New England, had only one twenty-fifth part of the circulation. The New England Bank had reduced the cost of redeeming country bank notes to a minimum before the Suffolk entered the field, but the cost was borne by the noteholders. The Suffolk managers conceived the idea of putting the cost of redeeming them on the issuers, and of abolishing the discount entirely. The bank's object was to make a profit for itself, but it accomplished much more, as

the sequel will show. The plan proposed by the Suffolk was that it would redeem any New England country bank notes at par if the issuing banks would keep a permanent deposit of $5000 in the Suffolk Bank (the interest on which should compensate it for doing the business), plus a further deposit sufficient to redeem such of their notes as should reach Boston in the course of trade.

To the country bankers of that day nothing more exasperating than this plan could have been imagined. They declined it because it seemed likely to curtail their circulation and the profits derived therefrom. Then the Suffolk began to collect their notes systematically and send them home for redemption in specie. The country banks were furious. They said that the Suffolk was demanding of them an impossibility, that of redeeming their notes in two places at once. The Suffolk had demanded no such thing. It had merely offered them the alternative of redeeming their notes in Boston or at their own counters. The fight was bitter. The Suffolk maintained it at first singlehanded. In 1824 the other Boston banks became convinced that it was time to put an end to the uncurrent money that was displacing their own notes in the field of circulation. They joined the Suffolk and contributed a large fund to enable the latter to extend its operations to all parts of New England. The run on the resisting banks was continued until they began to come in and make the deposits required. The terms offered were that each country bank should make a permanent deposit with the Suffolk of $2000 or upward, according to the amount of its capital, and such additional sum as might be necessary to redeem all of its notes that should come to Boston. From banks which complied with these conditions the Suffolk offered to receive at par the notes of any New England bank in good standing. In other words, the Suffolk would not require the country bank to remit drafts on Boston payable in specie to make its balance good, but would accept as specie the New England notes which the country bank was habitually receiving in the course of its business. Thus the Suffolk became a clearing-house for the notes of New England banks in Boston, balancing them against one another every day. The notes were sorted and redeemed and held subject to the order of the issuing bank.

In 1845 the state of Massachusetts passed a law providing that no bank should pay over its counter any notes but its own, and this law remained in force until the national banking system superseded the Suffolk system. As no bank could pay out the notes of any other bank, it was compelled to send those which it took on deposit to the Suffolk at once for redemption. This law enforced the principle that everything paid over a bank's counter must be the equivalent of specie. The whole Suffolk system was based on this principle, and the battle which it started was fought in order to enforce it. A slovenly idea had pervaded the whole country that specie redemption, although good in theory, was bad in practice. This conception was only slowly uprooted, first in New England, afterward in New York, and later in Louisiana and in some other spots, but it held the ground over the larger part of the country until the Civil War. Mr. D. R. Whitney, in his history of the Suffolk Bank, says:

> It was the underlying principle of the Suffolk Bank system, that any bank issuing circulation should keep itself at all times in a condition to be able to redeem it; that it should measure the amount by its ability so to do; and that the exercise at any time of the right to demand specie of a bank for its bills was something of which the issuing bank had no right to complain.

Nevertheless, there were some complaining banks all the time, though after the system had been fairly established these were only a small minority. The panic of 1837 caused a general suspension of specie payments. When the time came for a general resumption, the question of renewing the Suffolk system was open to debate. The banks of Massachusetts, New Hampshire, Vermont, and Connecticut voted at once to sustain it, whilst those of Maine and Rhode Island came in soon afterward. The Suffolk Bank system gave wide credit to the New England banks, and in consequence their notes gained an extensive circulation in remote parts of the country and in Canada. In 1857 five hundred banks were embraced in the system.

Under such circumstances the Suffolk took upon itself the office of a comptroller of the currency. It did not admit a new

bank to the fellowship of the system merely because it had procured a charter, perhaps by favoritism, perhaps by bribery. It first satisfied itself that the shareholders were men of good character and that the institution had been started in good faith. Of course the Suffolk could not prevent the newcomer from issuing notes, but it could withhold its passport and thus prevent it from getting any extensive circulation. The precautions which it took in admitting newcomers were taken for the credit and good name of New England banking.

The Suffolk Bank suffered some losses in consequence of advances to country banks, but these did not prevent it from declaring dividends at the average rate of 11½ per cent per annum. The losses which it incurred from counterfeits and alterations in notes were very small. From 1836 to 1846 the losses by counterfeit notes were only $1107, from alterations $766, and from counterfeit signatures on genuine notes $82, although the redemption at that time exceeded $100,000,000 per year. In 1824 two clerks could do all the work. In 1855 seventy were required, and the redemptions reached $400,000,000 per year. As the circulation of the New England banks at that time was about $40,000,000, the whole amount was redeemed ten times each year, or about once in five weeks.

The "Banking Principle." Any person engaged in a legitimate trade, in any part of New England, could exchange his promissory note, running sixty or ninety days, for the notes of a bank, with which he could pay the wages of his employees or buy the materials of his industry in any part of the United States or Canada. The notes would remain in circulation about five weeks, and then find their way to the Suffolk Bank, where they were offset by the notes of other banks which took their rise in the same way. The man whose promissory note the bank had discounted, and by means of which it had put its own notes in circulation, had meanwhile sold his products. If he had sold them in Boston, his draft on the Boston merchant would pay his note at the local bank, and this would enable the latter to keep its balance good at the Suffolk. If he had sold them in New York or Chicago, he would get his pay in a draft on Boston, which would answer the

same end. If he had sold them at home and had received New England bank notes in exchange for them, the local bank could use these to keep its balance good at the Suffolk. New England trade was carried on by an endless chain of offsets and book balances at the Suffolk Bank. The security for the notes consisted of the bank's assets and the banker's moral character and business sagacity. Both notes and deposits rested upon the same security that deposits rest upon now, and the volume of both was determined by the wants of trade.

The "Currency Principle." The foregoing method of issuing circulating notes is called the "banking principle," a term used in contradistinction to the "currency principle," which assumes that a certain amount of paper currency will be wanted by the community at all times and that the government may advantageously issue it, either directly or through an agency like the Bank of England. As the latter principle was operative in England, the average amount which would always circulate, and which the community would never send in for redemption if satisfied of its goodness, was first ascertained experimentally. If, in the progress of time, more notes were wanted than the ascertained sum, they had to be bought with gold. Thus the Bank of England was required to give its notes for all the sovereigns offered to it or for gold bullion of equal value.

Specie Reserve. Under the Suffolk system of bank-note redemption, specie was seldom asked for, but it was always paid when demanded. The metallic reserve was the touchstone of the whole business. The banks learned by experience how many notes would circulate and how much specie was needed. It was not until 1858 that the state of Massachusetts, in consequence of the panic of 1857, established a legal reserve of 15 per cent of specie against both deposits and circulation. Country banks might count their balances in Boston banks, payable on demand, as specie, for experience had shown that notes were best redeemed at a common center, where the gold reserve should be kept. Before the passage of the law of 1858 the specie reserve had been extremely variable, ranging from 44 per cent in 1843 to 7½ per cent in 1851. There was a heated controversy over the passage

of this law. The bankers were generally opposed to it, on the ground that it was unnecessary meddling, but public opinion sustained it. After the passage of the law the specie reserve rose considerably above the legal requirement and afterward oscillated around it, being sometimes a little more, and sometimes a little less, than 15 per cent. This law did not touch the other New England states, whose banks were integral parts of the Suffolk system. In 1859 Maine, Rhode Island, and Connecticut each had 10 per cent of specie as against circulation and deposits, New Hampshire 7½ per cent, and Vermont only 6 per cent.

The Suffolk Bank system continued until it was superseded by the national banking system, which required each bank to receive the notes of every other bank at par for all dues to itself.

Massachusetts General Laws. Massachusetts enacted general banking laws in 1805, in 1828, in 1835, in 1860, and in 1880. Her banking law, as it existed before the national system came in force, consisted of two parts, one relating to chartered banks and the other to free banks. A free-banking law, which allowed persons to organize banks at their own pleasure, on condition of depositing with the state officers bond security for their circulating notes, had been passed in 1851, but only seven banks were organized under it. The following were among the provisions of law relating to banks in 1860: No individual could hold more than half the stock of any bank; no person could be a director of more than one bank; no person could be a director whose stock was pledged for debt. Neither the debts nor the credits of a bank could exceed twice the capital stock paid in, except for deposits and for debts to or from other banks. No bank could pay out any notes but its own; or issue any notes, directly or indirectly, except at its own banking house; or issue any notes with the understanding that they should be kept out a certain length of time. No bank could make a loan repayable in anything except specie or its own notes. In case of bank failure the noteholders were to have a prior lien on the assets. If any new banks should be chartered with greater privileges than those here enumerated, the same privileges were to extend to all other banks. Three bank commissioners were appointed to examine all banks

once each year — or oftener if they deemed it expedient — and to publish the results of such examinations.

The Safety-Fund System

New York has made two contributions of the first importance to banking science: (1) the safety-fund system, or mutual insurance of circulating notes; (2) the free-bank, or bond-deposit, system for securing circulating notes, which was the precursor of the national banking system.

Banks and Politics. During the first half-century banking in New York was an integral part of the spoils of politics. Federalists would grant no charters to Republicans, and Republicans none to Federalists. After a few banks had been established, they united, regardless of politics, to create a monopoly by preventing other persons from getting charters. When charters were applied for and refused, the applicants began business on the common-law plan. Then, at the instigation of the favored ones, the politicians passed a law to suppress all unchartered banks. The latter went to Albany and bribed the legislature. In short, politics, monopoly, and bribery constitute the key to banking in the early history of the state.

The Bank of New York, described in a previous chapter, was controlled by Federalists. As the Antifederalists knew that the legislature would not grant a charter to them, Aaron Burr conceived the idea of procuring one by stealth. The city had recently been scourged with yellow fever, the ravages of which were attributed in part to the bad water. Accordingly a petition was presented for a charter for a company with a capital of $2,000,000 to supply New York City with pure water. In it was a clause authorizing the company to use any surplus of capital, over and above the amount needed for the water works, in any moneyed transactions not inconsistent with the constitution and laws of the state or of the United States. The Council of Revision (of which John Jay was president), whose approval was necessary, did not suspect that banking powers were concealed in the charter. The charter was granted, and the company applied one

half of its capital to water works and the other half to the banking business. This was the Manhattan Company, which ceased to be a water company in 1840, but has continued as a bank to the present day.

When the Republicans came into power they refused all applications for bank charters to Federalists; and the existing banks, of which there were six in the state before 1804, made common cause to prevent any new ones from entering the field. In that year the Merchants' Bank of New York City, which was already in operation under the common law, applied for a charter. It was refused. The bank bought its way through the legislature amid scenes of excitement, which included fist fighting in open session. In 1811 the Bank of America repeated the operation on a larger scale.

In 1821 the people of the state sought to put an end to these scandals by a clause in the constitution of that year requiring a two-thirds vote of both branches of the legislature to pass a bank charter, but the only effect was to increase the evil by rendering necessary a more extended system of corruption.

In 1828 forty bank charters were in force, out of forty-three which had been granted, three small country banks having become insolvent. The charters of thirty of the survivors were about to expire, and all efforts to renew them had failed to secure the necessary two-thirds vote. The legislature was determined to impose on the banks some new conditions, in the public interest. At this juncture (January 24, 1829) Mr. Joshua Forman of Syracuse addressed a letter to Martin Van Buren, governor of the state, proposing a plan for the mutual insurance of banks. His suggestion was that each bank should be required to contribute annually to a common fund for the payment of the debts of such banks as should fail, this contribution to continue till it should reach half a million dollars and be kept up to that sum by further contributions when needful.

Safety-Fund System. Mr. Forman's plan was adopted, and a law was passed providing that every bank whose charter should be granted or extended thereafter should pay into a "bank fund" one half of 1 per cent of its capital each year, until the contribu-

tions should be equal to 3 per cent of its capital stock. This fund was to be applied solely to the payment of the debts (exclusive of the capital stock) of failed banks belonging to the system. The fund was not to be used, however, until the assets of the failed bank had been exhausted and the deficiency determined by judicial proceedings. Whenever the fund should be reduced in this way, the comptroller was to call on the banks for fresh contributions, at the same rate, as to time and amount, as the original ones. The same act provided for the appointment of three commissioners to examine all the banks three times each year, or oftener if required to do so. Any three banks might call for a special examination of any bank in the system.

Notes Made a Prior Lien. In 1837 three safety-fund banks, all in the city of Buffalo, were reported to be in difficulties. The legislature passed a law authorizing the comptroller to make immediate payment, out of the bank fund, of the notes of any insolvent bank whose liabilities, in excess of assets, should not exceed two thirds of the amount in the bank fund. This law was applied to the three Buffalo banks. There was no depreciation of their notes, and the bank fund was restored out of the assets of the failed banks. Two other banks went into liquidation soon afterward, and their notes were paid and the fund replenished in the same way. There were no more failures till 1840. During that and the two following years eleven banks failed. The fund was now about $900,000, of which $600,000 was applicable, under the law of 1837, to the immediate redemption of circulating notes, the remainder being reserved for depositors. The first three banks in the order of failure exhausted this sum. The bank commissioners, in their annual report for 1841, said that the bank fund was primarily intended for the protection of noteholders, not depositors or general creditors. The fact that the law put all creditors on the same level was not understood by the public or by the bankers themselves, and its expediency was called in question. In 1842 the law was amended, so that after the payment of all the liabilities charged against the fund at that time the noteholders should have the first lien on it.

In the constitution of 1846 noteholders were made preferred

creditors of all failed banks. This valuable principle had been adopted by the state of Connecticut in 1831. The law of that state, however, gave the preference only to the holders of notes of the denomination of $100 or less. One reason why noteholders ought to be preferred creditors of failed banks is that usually it is not a matter of choice whether persons shall or shall not accept bank notes offered in payment. This is especially true of the poorer and more helpless classes of the community, who are liable to lose situations or favor or patronage, if they make objections to the kind of money offered to them, and who are less able to form opinions for themselves on the soundness and standing of particular banks.

Unfortunately the charges against the bank fund before the act of 1842 took effect were sufficient to absorb everything it was likely to receive from the ½ per cent annual contribution for several years. Accordingly the state issued its own stock for $900,000 to make prompt payment to the creditors of the failed banks, taking a lien on the fund for repayment; and eventually the state's advances were all reimbursed out of the fund, principal and interest. Moreover, the fund redeemed about $700,000 of notes fraudulently overissued — a consequence of the lack, in the original act, of any system of public registration. The whole amount of payments into the safety fund was $3,104,999.

Faults of the System. The faults of the safety-fund system were errors of detail. The fund should have been liable only for circulating notes. By attempting too much the system broke down. When a bank failed, the redemption of its notes from the fund should have been immediate, so that the noteholders should not lose by delay and depreciation, and the fund should have been reimbursed later out of the assets of the failed banks and the legal contributions of the solvent ones. On the assumption that the circulation only ought to be protected, the contributions to the fund should have been proportioned to the circulation, and not to the capital stock, of each bank. The notes should have been issued to the banks only by the state comptroller, and duly recorded. In his report for 1848 Millard Fillmore, the comptroller, said that "the Safety Fund would have proved an ample indem-

nity to the billholder had it not been applied to the payment of other debts of the banks than those due for circulation."[1]

The Safety Fund in Canada. Although the safety-fund system has passed away in the place of its birth, it is alive and in high esteem in a neighboring country. It was adopted in Canada in 1890, in order to secure the prompt redemption of the notes of failed banks, that is, to avoid a discount on the notes of such banks pending liquidation. Under the Canadian system the circulating notes are the first lien on the assets, and it is believed that the assets will always suffice to redeem the notes; but the delay in converting them into cash, prior to the establishment of the safety fund, had led to a temporary discount on such notes. The maximum amount of the fund is 5 per cent of the outstanding circulation of all the Canadian banks, and it must be kept up to this maximum, the Minister of Finance having power to call on the banks for additional contributions, when necessary, not exceeding 1 per cent in any year. When the assets of failed banks are paid in, however, refunds may be made to the contributing banks of the excess over 5 per cent. Under the Canadian law the notes of failed banks draw interest at 6 per cent until redeemed. (The foregoing paragraph was written before the act of July 3, 1934. Gradual retirement of Canadian bank notes will leave an amount equal to 25 per cent of the capital of the banks.)

The Free-Bank System

The Monopoly System. The next change in the banking system of New York was even more radical than the one described in the preceding section. Until 1838 banking had remained a

[1] L. Carroll Root ("New York Bank Currency," *Sound Currency*, Vol. II, No. 5) verified Mr. Fillmore's statement by an independent examination of the figures. "It is plain," he said, "as a result of calculation from experiments of 36 years (1829–1865), that, had the Safety Fund system — as perfected prior to and in the constitution of 1846 — been left untouched as that upon which New York State bank currency was based, not merely would every dollar of circulation have been kept good, but the total assessment to keep the fund good would have averaged less than ¼ per cent on the banking capital, or about ⅛ per cent on the average circulation outstanding."

monopoly. Nobody could get a charter without a special act of the legislature, and nobody could invest even $100 in a new bank without the consent of the bank commissioners of the state. When a charter was granted, these officials parceled out, as a matter of favoritism and partisan spoils, the rights to subscribe for shares. Contention and heartburning were the necessary consequence, and no persons were more keenly alive to the disgrace than the bank commissioners themselves, who said in their report of 1837:

> The distribution of bank stocks created at the last session has in very few, if any, instances been productive of anything like general satisfaction. In most instances its fruits have been violent contention and bitter personal animosities, corrupting to the public mind and destructive of the peace and harmony of society.

These scandals caused nearly universal disgust and led to a revolt in the Democratic party in 1835. A faction sprang up calling themselves the Equal Rights party, known afterward as the Locofocos. They adopted a platform in which they declared "hostility to any and all monopolies by legislation, because they are violations of the equal rights of the people." As the Democratic party took no steps to reform the evils complained of, the Locofocos joined the Whigs and carried the elections in the city of New York in the autumn of 1836 and the spring of 1837, as well as the state election in the autumn of the latter year, securing a large majority of the legislature. This victory led to the free-banking law of 1838, the motive for it being political rather than financial. A suggestion for such a system had been made eleven years earlier by the Reverend John McVickar, professor of political economy in Columbia College, in a letter written to a gentleman in Albany and published in a pamphlet. Professor McVickar proposed that any individuals or associations might enter into the banking business freely, but that nine tenths of their capital should be invested in government stock, of which the bank should receive the interest, though the principal should remain in the custody of the state as security for the circulating notes of the bank. The remaining tenth of the capital might, however, be invested as the officers of the bank should see fit.

Free-Banking Law. The free-banking law of New York was introduced in the legislature by Mr. Abijah Mann. As amended and passed it provided that any person or association of persons might receive from the comptroller circulating notes, and after signing them might issue them as money by first depositing with him stocks of the United States, of the state of New York, or of any other state approved by the comptroller, made equal to a 5 per cent stock of the state of New York, or bonds and mortgages on improved, productive, and unencumbered real estate, worth double the amount of the mortgage, exclusive of the buildings thereon, and bearing interest at not less than 6 per cent per annum. The banks might deposit stocks only, or half stocks and half bonds and mortgages, and the printed notes should specify to which class they belonged. In case default should be made in the redemption of any such notes, the comptroller was to sell the securities and apply the proceeds to the redemption of the notes. The state was not in any way responsible for the payment of the notes beyond the proper application of the securities to that purpose. The persons or associations depositing the securities were to receive the interest on them as long as they redeemed their notes on demand, unless in the opinion of the comptroller they had depreciated so as to be no longer adequate security.

A Bad Beginning. The bill became a law on April 18, 1838. There was an immediate rush of people into the banking business. One hundred and thirty-three new banks were organized, and seventy-six started in business before December 1, 1839. Experience under the new system was at first disastrous. The Bank of Tonawanda failed in 1840, and its securities realized only sixty-eight cents on the dollar of its outstanding notes. This example led to a change of the law regarding stock securities, which were now restricted, as to banks subsequently established, to those of New York. The mortality of the free banks was so great, by failure or voluntary liquidation, that in 1842 only forty-six remained in operation. In 1844 the comptroller reported that twenty-six free banks had failed, and that their circulation had been redeemed at the average rate of seventy-six cents on the dollar.

The practice of issuing notes at interior towns by persons residing in New York City or even in other states was soon discovered to be prevalent. Hence a law was passed in 1840 requiring that all country banks should redeem their notes in New York City or Albany at a discount not exceeding one half of 1 per cent. As they usually passed at par, a man could issue and lend notes in New York City, dating them at some remote place in the interior, and then redeem them at a discount of ½ per cent at the very place where he had issued them. The profit on $10,000 would be $50 each time that amount of notes was put out and taken back, plus the interest paid by the borrower. This was more freedom in banking than had been contemplated. An act was accordingly passed in 1844, providing that nobody should transact business as a banker except at the place of his actual residence, but this law was evaded. The banker appointed a dummy in the interior town to sign the notes for him, and then went on as before. Banks established merely for the purpose of issuing notes were made the subject of examination and reproof by a committee of the senate in 1845. Three years later a law was passed requiring that all banking associations and individual bankers should be banks of deposit and discount as well as of circulation; but, as there was no means provided for enforcing it, this law was evaded also. In 1851 the legal discount on country bank notes was reduced to ¼ per cent.

Faults of the System. It was commonly supposed that security for bank notes was the same thing as redemption of them; and that, if the notes were secured, redemption would not be demanded, or if demanded would be easily met. All these suppositions were erroneous. Redemption of the notes was just as necessary under this system as under any other; and when the test came, the security was found to be defective. The event proved that there were other conditions requisite to a good banking system — that the shareholders must be men of substance and character, that the banks must have capital and local habitations, and that they must do a real banking business. The defects of the securities under the free-bank system were remediable, however. Experience having proved that bonds and mort-

gages were not quick assets and that they might become utterly unavailable in a panic, they were finally cast out altogether, and the stock securities were toned up to par by being restricted to those of the United States and of the state of New York. The state constitution of 1846 also contained important provisions. It made stockholders individually liable (after a specified date) for the debts of banks to an amount equal to their respective shares, in addition to the amount invested by them in the bank. It provided that in case of insolvency noteholders should be preferred creditors; that the legislature should not pass any law sanctioning the suspension of specie payments; that no special charters for banking purposes should be thereafter granted or extended; and that all future acts of incorporation, whether general or special, might be altered, amended, or repealed. All these provisions are traceable to the Locofoco uprising of 1836–1837.

The System Perfected. From 1839 to 1850 thirty-two free banks failed, with a circulation of $1,468,243, which was redeemed at various rates from par down to thirty cents on the dollar, the aggregate loss being $325,487. From 1851 to 1861 there were twenty-five failures, with a circulation of $1,648,000 and a loss of only $72,849. After 1861 there were no failures that resulted in loss to noteholders, except by some small delay in realizing on the securities. The system was now nearly perfect, so far as security was concerned.

Comparison of the results of the safety-fund system and the free-bank system in the state of New York shows a marked advantage for the former in the matter of elasticity of note issues or the power to respond quickly to the demands of business. It was not necessary for the safety-fund banks to invest additional capital, to buy securities in the market and lodge them with the state comptroller, and to go through other tedious formalities before meeting the demand for more notes. They could respond immediately, and in exact measure with the demand. The free banks, after buying their notes from the state comptroller, could not put out any more of them than the safety-fund banks could of theirs, which cost nothing, or keep them out any longer.

When the notes of the free banks came back to their counters, they became dead capital, earning no interest. Hence those banks would take out no more than the average amount which they could keep in circulation. Thus they would have no margin for special emergencies. Accordingly there was a regular rise and fall of the circulation of the safety-fund banks according to the seasons and the state of trade, while that of the free banks was comparatively rigid.[1]

Free Banks in Illinois. The free-bank system of New York harmonized so well with the doctrine of equal rights and gave such promise of abundance of money that it became very popular. Sixteen states adopted it in whole or in part. The controlling motive in most cases was to secure circulating notes in the largest amount and with the greatest rapidity possible. The state of Illinois passed her free-banking law in 1851. In November of that year it was submitted to a vote of the people and ratified. It provided that any number of persons might organize a bank, but that no bank should have a capital less than $50,000. It did not require that a bank should have any directors. The bank's capital might consist wholly of bonds of states or of the United States, deposited with the state auditor as security for its circulating notes. The auditor could deliver to the bank in circulating notes 80 per cent of the market value of the securities. The banks were allowed to pay out the notes of any specie-paying banks of the United States or of Canada. This was virtually an authorization to banks to pay their debts in something else than gold or silver and hence was unconstitutional; but, as it was in accord with public opinion, nobody questioned it. One hundred and twenty banks were established under this law. Most of them were banks of circulation only. The banking business, in their view, consisted in converting state bonds into circulating notes, getting these into the hands of the people for value, and preventing noteholders from calling on them for specie. There were

[1] L. Carroll Root, in his monograph "New York Bank Currency" (*Sound Currency*, Vol. II, No. 5), presented a view of the working of the two systems as regards elasticity, by charts showing the rise and fall of the circulation under each from 1857 to 1861.

attempts at first to do a legitimate banking business in the large towns under this law; but they were ineffectual, because the notes of such banks would be returned for redemption, while those of remote and inaccessible places would remain in circulation. In practice it was hardly necessary for the bank to have a place of business, if its notes were secured. In some instances, where attempts were made in Illinois to present notes for redemption at the bank's counter, no counter was found, but merely a hired room in some place remote from any railway station and situated on some bottomless prairie road.

The panic of 1857 caused a suspension of specie payments over the greater part of the country, including New York and New England. With such illustrious examples before them, the closing of the banks of Illinois was looked upon as a matter of course. Exchange on New York rose to 15 per cent premium in Chicago. The country banks of Illinois had nothing except security bonds which were held by the state auditor. In many cases the bonds had been borrowed and the resulting notes had been handed over to the lenders. Nevertheless the people were tolerant and allowed the bankers time to recuperate. In 1861, when the Civil War began, there were a hundred and twelve so-called "solvent banks" in existence in the state, meaning those that had recovered from the disasters of 1857 or had been established later. When the clouds of the war began to lower, the security bonds, many of which were those of Southern states, began to decline in value, and the notes depreciated accordingly. There was now no real money and no currency in Illinois, but merely different varieties of uncurrent notes passing at various rates of discount, the quotations varying from day to day, from place to place, and even from street to street. Lists of banks, with the rates at which their notes would be received in trade, were posted in all shops, railroad offices, and brokers' offices, and published in the newspapers. There was a merchants' list, a bankers' list, and a railroad list, and these were subject to change without notice. In August, 1861, the system collapsed. At the end of the year only seven free banks remained, with a total circulation of $147,000. The legislature was bewildered by the crumbling of the system on whose security such

extravagant hopes had been built. A law was enacted providing that no bank should have a circulation exceeding three times its capital, and that the bonds deposited to secure its circulation should not be considered as evidence of capital; but the system never recovered from the shock. The circulation outstanding at the beginning of 1861 was $12,320,694. The average loss to note-holders was 40 per cent. But for the advent of the Civil War it is probable that free banking in Illinois would have followed the same course as in New York — that the securities would have been gradually toned up to par, the laws made more stringent, and central redemption required.

Indiana and Wisconsin. The free-bank system was adopted in Indiana in 1852 and in Wisconsin in 1853. The law of the former state was very similar to that of Illinois. The differences were that in Indiana the auditor might issue circulating notes to the full amount (instead of 80 per cent) of the face value of the securities deposited, and that each bank must have specie in its own vaults equal to 12½ per cent of its circulating notes, a requirement that was not generally complied with. The downfall of the system in Indiana was even more precipitate and disastrous than in Illinois.

The free-banking law of Wisconsin allowed the bank comptroller to issue circulating notes to the full amount of the bonds of states deposited with him by banks. It allowed him also to receive the first-mortgage bonds of any railroad in the state twenty miles long, or divisional-mortgage bonds on sections of road of not less than forty miles, such road to be first inspected as to its physical condition by the governor, the attorney general, and the bank comptroller, or any two of them. On such securities 80 per cent of circulating notes could be issued, and one half of the securities of any bank might consist of railroad bonds of this description. Stockholders were required to give their personal bonds to the extent of one fourth of the amount of the circulating notes, as security against depreciation of the other securities. Except in this particular the shareholders were not liable beyond the amount of their capital invested. This law was no better than those of Illinois and Indiana, but it was better administered. The comptroller was more careful about the securities he took, and as a consequence the banks were

better fortified when the strain came. Yet they ended in disaster and disorder, the city of Milwaukee being the scene of riots in June, 1861, in consequence of the depreciated currency.

Free Banking in Canada. The free-bank system was adopted permissively in Canada in 1850. There it was brought in competition with the system of chartered banks, which was then substantially the same as that of the New England states. Only six banks were organized under it, although special advantages were offered in the way of exemption from taxation. Their circulation, which reached $1,080,684 in 1856, ran down to $495,631 in 1860, and the next year three of the six practically withdrew from the field, and now not one remains. The reason for the failure of the system was that the free banks could not compete with their neighbors and rivals in business. When the system was started, the Canadian government debentures paid 6 per cent interest and could be bought at a price which netted 7 per cent to the investor. The advocates of the system said that this would furnish an ample margin of profit, that the banks would get 7 per cent on their deposited bonds, plus whatever they could obtain from the loan of their circulating notes. This was a half-truth. The fact was overlooked that the other banks, having their capital free (not locked up in government debentures), could lend three or four dollars of credit for every dollar of cash in hand and could use their circulating notes as well as the free banks could use theirs. Thus the business opportunities were in favor of the chartered banks. A similar competition, with similar results, took place between free, or bond-deposit, banks and chartered banks in Massachusetts, Ohio, and Louisiana. The former were crowded out.

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CHAPTER XXI

BANKING CHAOS AND SOME NOTABLE BANKS IN THE NINETEENTH CENTURY

The orderly conditions of banking at the beginning of the twentieth century could not be fully appreciated without a glance at the chaos which prevailed during the greater part of the nineteenth. Some of the disorders have been detailed in preceding chapters, but they give a very inadequate idea of the miseries endured by the people before the second Bank of the United States was established and for some thirty years after it ceased to exist.

Speculation in Bank Charters. The usual method of starting a bank was as follows: First a charter was obtained from the state legislature. This would form the basis of a speculation. It was customary to subscribe for a much larger number of shares than one expected to get. One bank is said to have had an authorized capital of $100,000, whereas the subscriptions amounted to $8,000,000. In Philadelphia the struggle at the windows of the offices where subscriptions were taken was often attended with severe personal injury. "The most disgraceful riots that occur in Philadelphia," says Gouge, "are those which are produced by the opening of the books of subscription for a new bank." If the competition had been very brisk, the shares would generally command a premium after the books were closed. This was the chief aim of the speculators. Then the capital would be paid mostly in stock notes. The interest on the stock notes would be offset by the dividends on the shares, with a surplus to the speculators, provided the bank did not break. If the times happened to be unpropitious and a suspension of specie payments followed, the state legislatures were lenient, the banking fraternity was powerful, and public opinion was so lifeless that the business might go on just as well as before or even better, since there would

then be no restraint upon the bank's issues. As the activities of banking at that time took the form of note issues rather than of deposits, the losses resulting from bank failures were widely diffused. They fell upon the whole community, but especially upon farmers, mechanics, wage-earners, washerwomen, and other poor people, who did not have bank accounts, but into whose pockets the worthless notes had found their way.

Bank Failures. There were general suspensions of specie payments in 1814, 1818, 1837, 1841, and 1857, besides the suspension of the Civil War period, 1861–1879. There were some crises in which the banks which continued to pay specie were exceptions to the general rule. There were also many partial suspensions, where large groups, although not a majority, of banks failed; and there were individual suspensions without number, many of them fraudulent, and all entailing indescribable suffering on the poorer classes. Such misery was inflicted upon the country that some of the states in their constitutions entirely prohibited the existence of banks within their limits.[1] Most commonly, however, the banking fraternity controlled the state governments.

Chaos in North Carolina. A report made to the legislature of North Carolina in 1828 disclosed the following facts. The bank of Cape Fear and the bank of Newbern were chartered in 1804. The nominal capital of each was $800,000. In each case the law required that this should be paid in gold or silver, but it was not so paid. Upon this fraudulent basis they issued notes to the

[1] The writings of W. M. Gouge and Condy Raguet, like the pages of Niles's *Register*, are filled with particular instances of downright fraud, and of reckless speculation which can hardly be distinguished from fraud, in the establishment, operation, and closing of banks in the first half of the nineteenth century. For example: the Towanda Bank of Pennsylvania established its credit and gained a large circulation by having an agent to redeem its notes in Philadelphia. Suddenly the agent stopped redeeming them. "Hundreds of poor laborers," said the *Public Ledger*, "were to be seen running in every direction with their hands full of the trash and not able to induce a broker to give a sixpence on the dollar for them. We passed in the market a woman who makes her living by selling butter, eggs, and vegetables, who had almost all she was worth, about $17, in Towanda bank notes. When apprized that it was worthless, she sank down in agony upon her stool and wept like a child."

amount of more than $3,000,000, which they issued for discounting paper, drawing 6 per cent interest, "so that," says the report, "for the use of their notes, which, intrinsically, were of no value at all, the stockholders of these two banks have drawn from the people by way of interest something like $200,000 annually." The state bank of North Carolina was incorporated in 1810 with a capital of $1,600,000. In 1819 these three banks entered into an agreement with each other not to pay specie, and their circulating notes immediately fell to 15 per cent discount. They then introduced a clause into the promissory notes which they discounted, requiring payment in specie; that is, they lent their own irredeemable notes to the public on condition that payment should be made in coin. The specie so received was used to buy up their own circulating notes at a discount. At the time when the investigation was made the state bank had less than $1000 specie in its vaults. In view of these shocking revelations the recommendation of the legislative committee was that the attorney general should be directed to institute proceedings for forfeiture of charter. Even that suggestion failed; for, when the banks threatened to call in their loans, the legislature immediately became deaf and the people dumb.

In Georgia. The state of Georgia in 1818 gave to the bank of Darien a charter, which provided that in every case where a demand was made on the bank for the redemption of its notes in specie the cashier might require the person making the demand to take an oath in writing "that such notes or bills so presented for payment are not the property of any other bank, company, or incorporation." The bank enlarged this privilege by adopting a rule that every person presenting its notes for redemption must take an oath in the bank, before a justice of the peace and in the presence of five directors and the cashier, that he was the owner of the notes and was not acting as the agent of anybody else. Of course, if it was very inconvenient for the bank to pay, it could thus protect itself; for it would be very difficult for the other party to bring a justice of the peace, five directors, and the cashier together. In other words, the bank assumed power to suspend and resume payments at its own pleasure.

The exercise of this power as against strangers was favored by public opinion, not only in Georgia, but throughout the South and West. Anybody coming from a distance to draw specie from a bank incurred the odium of the community. In such cases the bank was considered justified in paying the most inconvenient kind of coin and in taking the longest time to count it. In some cases persons who claimed their rights against banks in this way were threatened with tar and feathers. Public authority over banks was equally paralyzed.[1]

In Michigan. A number of chartered banks existed in Michigan in 1837. Early in that year Michigan passed a banking law which, in some of its features, anticipated the free-bank act of New York. It provided that any number of freeholders, not less than twelve, might organize themselves as a bank and open books of subscription to the capital stock thereof, 10 per cent to be paid in specie at the time of subscribing, and not less than 30 per cent before commencing business. The banks were required also to deposit security with the auditor-general of the state for their circulating notes and other liabilities. The securities might be bonds and mortgages or the personal bonds of resident freeholders, to be approved by the treasurer and clerk of the county, and they were to be held for the debts of the banks in case the other assets should prove inadequate. In the following December another act was passed providing for the appointment of three commissioners to visit and inspect all the banks every three months and especially to examine their specie. This act also made a change in the system of deposited securities, by providing that they should consist of bonds and mortgages only.

[1] "We search almost in vain through the law reports for any decisions on the rights or authority of the state over banks, or the duties of banks to the state. It may be said that no attempts were made to test or enforce the rights of the state against banks and that, as a matter of practice, it had none. The banks were almost irresponsible. Such decisions as bear at all on the authority of the state over banks proceed from the attempts of the banks to resist the exercise of any authority whatever. For instance, the banks which had charters resisted the appointment of Bank Commissioners, which was an exercise of visitorial power, and was the lever by which the state, after 1840, began to reduce the banks to order." — Sumner, *History of Banking in the United States*, p. 352.

The commissioners started on their journey in January, 1838. They found that the state had been plentifully littered with banks, but that the basis for most of them was one lot of specie, which was used in each case until the formalities of the law were complied with and then passed on to the next. In other cases no specie had been seen at any time, but incantations had been held with imaginary gold in the form of specie certificates and specie checks. The commissioners learned that a watch was kept on their movements and that when they were expected to visit a certain bank the requisite amount of specie would be sent ahead one day or one night, so that it might be inspected and then withdrawn for the use of the next bank. But, as the specie in circulation at that time was mostly of foreign origin, after a particular lot had been inspected two or three times it could be identified by the preponderance of coins of this or that country or by special marks on some of them. In this way the commissioners easily discovered the deception. Yet in every case somebody was found to swear that the specie belonged to the bank and that it was intended to be kept there for the sole business of that bank.

Wildcat Banks. Many of these institutions were located in the depths of forests where there were few human habitations, but plenty of wildcats. Thus they came to be known as the wildcat banks. Forty of these so-called banks went into operation under the law of 1837, with a nominal capital of $3,900,000, and all but four of them failed before December, 1839. The failure of the free banks discredited the chartered banks also and brought all of them down except three. The people of the state, who did not then number above 100,000 and were very poor, were left with $1,000,000 of worthless bank notes in their hands, for which they had given their products and their labor. When an attempt was made to realize on the mortgage securities, the Supreme Court pronounced the free-banking act unconstitutional and void.[1]

Counterfeit Notes. The bewildering state of the paper currency before the Civil War may be learned from the numerous bank-note reporters and counterfeit-detectors of the period. It was the aim of these publications to give early information to

[1] Felch, *Early Banks and Banking in Michigan.*

enable the public to avoid spurious and worthless notes in circulation. These were of various kinds: (1) ordinary counterfeits; (2) genuine notes altered from lower denominations to higher ones; (3) genuine notes of failed banks altered to the names of solvent banks; (4) genuine notes of solvent banks with forged signatures; (5) spurious notes, such as those of banks that had no existence; (6) spurious notes of good banks, as 20's of a bank that never issued 20's; (7) notes of old, closed banks still in circulation.

The number of counterfeit and spurious notes was quite appalling, and disputes between payer and payee as to the goodness of notes were of frequent occurrence, ranging over the whole gamut of doubts — as to whether the issuing bank was sound or unsound, whether the note was genuine or counterfeit, and, if sound and genuine, whether the discount was within reasonable limits. All merchants kept "bank-note reporters" for ready reference. If there was a bank in the town, the cashier was appealed to constantly by citizens to pass upon the goodness of notes in circulation.

Bicknall's Counterfeit Detector and Bank-Note List of January 1, 1839, contained the names of fifty-four banks that had failed at different times; of twenty fictitious banks, the pretended notes of which were in circulation; of forty-three other banks, for the notes of which there was no sale; of two hundred and fifty-four banks, the notes of which had been counterfeited or altered; and enumerated thirteen hundred and ninety-five descriptions of counterfeited or altered notes then supposed to be in circulation, of denominations from one dollar to five hundred.

Twenty years later *Nicholas's Bank-Note Reporter* had fifty-four hundred separate descriptions of counterfeit, altered, and spurious notes. The number of this reporter for November, 1858, described thirty different counterfeits of the notes of the Bank of Delaware, Wilmington. They were one 1, three 2's, twelve 5's, seven 10's, four 20's, two 50's, and one 100. The known counterfeits of the Bank of Kentucky, Louisville, were three 1's, two 2's, two 3's, one 4, two 5's, four 10's, seven 20's, four 50's, two 100's, and one 500 — twenty-eight in all. The same number were catalogued of the State Bank of Ohio, namely, four 1's, five 2's, two

3's, four 5's, nine 10's, two 20's, one 50, and one 100, with the remark appended to the last: "Bank never issued any." Descriptions of the latest counterfeits were inserted conspicuously on the first page of each number. Thus the first page of *Thompson's Reporter* for June 11, 1857, had warnings against fourteen spurious and altered notes which had made their appearance since its last issue. Extra sheets of the same publication in 1859 had notices like the following:

1's, 2's, 3's and 5's of the Wisconsin Miner's Bank are in circulation; there is no such bank.

Notes of the broken Farmer's Bank of Rhode Island are appearing altered to the other Farmer's Banks in various cities and States.

Counterfeiters have become possessed of a large batch of the worthless notes of a concern called the Thames Bank, Laurel, Ind., and have commenced altering them to represent bills of various good banks — the Thames Bank of Norwich, Conn., and the Conway Bank, Mass., and others.

Bank of Mobile. Genuine impressions of the 20's, 50's and 100's of this bank with forged signatures are in circulation.

There was a publication called *Monroe's Descriptive List of Genuine Bank Notes.* This contained thirteen hundred and twenty-three separate descriptions of notes. Frequently the banks which found their notes successfully counterfeited would destroy the plates and get new ones engraved, with the result that they had two or three kinds of genuine notes in circulation at once, thus, of course, adding much to the confusion. There was also a list of broken, closed, and worthless banks. This was kept standing in all the reporters. There were forty such credited to New York City at one time and one hundred and twenty-five more to other parts of the state. Rates of discount on all bank notes that were not at par in New York were quoted in all the reporters. The auditor of Illinois advertised November 9, 1861, that he would redeem the notes of one hundred and thirty-nine banks named by him, at various rates ranging from 40 to 90 cents per dollar.

Minor Abuses. Among the minor abuses of banking was the practice of requiring borrowers to leave on deposit a certain proportion of the amount borrowed, — in some cases 40 per cent, —

so that the bank could lend the difference to somebody else and thus get double interest. The practice of issuing post notes, payable thirty or sixty days after date, — this feature being, in some cases, printed in very small letters so that an ordinary observer would not notice it, — has been previously referred to. Laws were enacted forbidding the issue of post notes; but they were evaded by the device of lending notes on condition that they should be put in circulation at a certain distance from the bank or should be kept out a certain length of time or should be used only as collateral security for loans at other banks. One of the most common practices was to pay out the notes of distant banks that were at a discount. This practice prevailed largely in Chicago and the surrounding country from 1854 to 1859. Most of the bankers in that city owned banks in the state of Georgia, the notes of which they paid out for the commercial paper which they discounted. The same banks sold drafts on New York at $\frac{3}{4}$ per cent premium in exchange for these notes; in other words, they paid out the notes at par and redeemed them at a discount. This practice was sanctioned by law and public opinion, and it turned out that these unsecured notes of banks in a distant and then rather inaccessible state were intrinsically better than the bond-secured issues of the banks of Illinois. The former had assets without securities, and the latter had securities without assets. None of the Georgia-Chicago banks failed, nor did the discount on their notes ever exceed 1 per cent. The condition was similar to that which existed in New England before the corrective measures of the Suffolk Bank system were applied.

Some Notable Banks

State Bank of Indiana. Notwithstanding the disorders of banking in the West and South described above, there were some bright spots in the prevailing gloom. The most notable of these was supplied by the State Bank of Indiana. This was a system, or group, of banks modeled, for the most part, upon the Bank of the United States. It was established by the state legislature in 1834, after the bill to recharter the Bank of the United States

had been vetoed by President Jackson. The capital of the bank was $1,600,000, all of which was paid in specie — mostly in Spanish and Mexican silver dollars. One half of the capital was owned by the state and the other half by private persons; but the state advanced 62½ per cent of the private subscriptions as a loan at 6 per cent interest, taking mortgage security and a lien on the shares for repayment. The persons subscribing for shares were required to pay 37½ per cent of their subscriptions in specie before the state advanced the remainder. The state procured the money by a 5 per cent loan negotiated in New York. The securities issued were termed "bank bonds." These were to run a little longer than the charter of the bank and were specially secured by the state's shares in the bank and her lien on those of the private shareholders. The charter was to continue twenty-five years, and no other banking corporation was to be created or permitted in the state during that time.

Its Branch System. The bank was to consist of one parent institution at Indianapolis and ten branches. Each branch had a capital of $160,000. The parent institution had no capital under its immediate control, differing in this respect from the Bank of the United States. It consisted of a president and board of directors who supervised, examined, and controlled the whole. The president and four directors were chosen by the legislature to hold office five years, and one director was chosen by the private shareholders of each branch. The branches were managed by the local shareholders, subject to the central board at Indianapolis. The number of branches was afterward increased to thirteen by additional capital, of which the state contributed one half. The earnings of each branch belonged to its own shareholders exclusively, but the dividends were declared only by the parent bank. Unpaid interest on loans, whether due or not due, could not be included in dividends. Each branch was liable for the debts of every other branch, and in case of the insolvency of a branch had to pay them within one year; but the state had a first lien on the assets of any failed branch for the reimbursement of its stock. The branches were independent of one another as to assets, but were united as to liabilities. This had the effect of

inducing vigilance on the part of all the members in watching each other and of inspiring public confidence in the stability of the whole institution.

Charter Regulations. No branch could lend money on the security of its own stock. No officers or directors could borrow on terms unlike those offered to the public or endorse for one another or vote on questions wherein they were financially interested. On all applications for loans above $500, a majority vote of five sevenths of the board was necessary, and this was to be entered on the minutes with the names of the directors so voting. Directors were individually liable for losses resulting from infraction of the law, unless they had voted against such infraction. The insolvency of any branch was to be deemed fraudulent unless the contrary were proved. In any case of insolvency adjudged to be fraudulent the directors were to be liable for the debts without limit; and after their estates were exhausted the other stockholders were to be liable for an amount equal to their shares, in addition to the amount that had been paid, or ought to have been paid, thereon.[1] The debts due to or from any branch (except for deposits) were not to be more than double the capital of that branch. Theoretically, therefore, each branch might have notes outstanding to double the amount of its capital. Its maximum circulation was $4,000,000 (in 1851), the capital being then $2,000,000. The notes were signed by the president of the bank and were issued to the branches by the parent bank. Each branch was required to redeem its own notes in specie on demand and to receive the notes of all the other branches at par. The notes were usually taken from the parent bank by the presidents or directors of the branches traveling on horseback. Mr. Hugh McCulloch (afterward Secretary of the Treasury) was president of the Fort Wayne branch. He says:

[1] The clause of our National Banking Act which made the shareholders personally liable for all the debts of a bank to an amount equal to the par value of their shares, in addition to the amount invested by them in the bank, made its first appearance on this continent in the charter of the Gore Bank of Hamilton, Canada, in 1835. The provision in the charter of the State Bank of Indiana fell somewhat short of that.

Fort Wayne was three good days' ride from Indianapolis, mostly through the woods. For fifteen years I made this journey on horseback and alone with thousands of dollars in my saddle bags, without the slightest fear of being robbed. I was well known upon the road and it was well known that I had money with me and a good deal of it, and yet I rode unharmed through the woods and stopped for the night at the taverns and cabins on the way, in perfect safety.[1]

Such were the leading features of this renowned bank. Its success was due to the excellence of the rules adopted for its government and to the sagacity and fidelity of its management. It was always under the control of men of prudence and probity. The managers of the parent bank were empowered to examine the branches as often as they saw fit and were required to do so at least twice each year. The examinations were usually made by the president. They were always thorough; and, as no notice was given of the time when the examiner would come, no special preparations could be made. Mr. McCulloch ascribed the success of the bank largely to the intelligence, thoroughness, and frequency of the examinations.

Final Liquidation. The bank's charter expired in 1859, and it went into liquidation. The state of Indiana realized a net profit of $3,500,000 — over and above the interest paid on the bank bonds — from the bank during the twenty-five years of its existence. The private shareholders, on the average, received $153.70 for each $100 paid in, besides the annual dividends. While the process of liquidation was going on, a bill was passed by the legislature to incorporate the Bank of the State of Indiana. This act was procured by certain scheming politicians, for the purpose of selling their rights under it to the owners of the expiring bank. In this they were successful. The old bank stepped into the new charter and entered upon a fresh career of prosperity, under the presidency of Mr. McCulloch; but the state had no share in it. It continued until 1865, when the Federal tax of 10 per cent on the notes of state banks crippled its operations.

Its Memorable Career. Considered as a continuous institution from 1834 to 1866, this was a memorable bank, of whose history

[1] McCulloch, *Men and Measures of Half a Century.*

the country may well be proud. It was another excellent illustration of the "banking principle." Its loans and discounts took the form of note issues, rather than of deposits, in the proportion of about seven of the former to one of the latter. This was due to the nature of its environment, as it was situated in a sparsely settled agricultural country, where bank checks were not adapted to the conditions of society. For a circulating medium bank notes were better adapted to the wants of the people than specie. Such a medium was supplied by the bank at all seasons of the year and in exact proportion to the demand, that is, in proportion to the offering of good paper for discount.[1] After 1842 the notes of the bank were always redeemed in specie, even during the crisis of 1857, when all the banks in New England, and all in New York except one (the Chemical), were obliged to close their doors. It is true that public opinion in the West did not then require the payment of deposits in specie. If a bank redeemed its notes in coin, it might pay its depositors the same kind of currency that it habitually received from them; but the deposits of the State Bank of Indiana were so small a part of its liabilities that it could have met that test also.

When the bank began its operations in 1834, the state had about one million inhabitants; and of these less than one thousand were engaged in mercantile pursuits, and a still smaller number in manufactures. Accordingly the demands upon the bank were chiefly for mortgage loans. Such loans were made in considerable amounts, and they proved embarrassing. When the

[1] "It is of course true that for more than thirty years the entire tendency of banking movements in the United States was toward making the notes a preferred claim against the assets, and moreover against a certain portion of the assets, set apart in a particular form for the purpose of securing the notes. It goes without saying that the national banking system, the culmination of that movement, furnishes the country with the most reliable banknote circulation it has ever had. No one, of course, would think of returning to the chaos that prevailed when each State had its own system. Yet it is by no means certain that the national banking system can be made permanent on the present basis of bond security. If, then, it becomes necessary to reorganize the system, it will be worth while to examine the merits of this Indiana system of federal banks." — Harding, "State Bank of Indiana," *Sound Currency*, Vol. V, No. 16.

troubles of 1837 came, the bank could not realize on its mortgage securities. Its officers thus learned by their own experience that loans on land security, although generally safe in the long run, were not suitable for a bank whose liabilities were payable on demand. It accordingly discontinued them as soon as practicable. It continued, however, to lend money largely to farmers and drovers on personal security and on bills of exchange drawn against shipments of agricultural products. Here it found its true source of wealth, and here the agriculturists found an ever-present help in time of need, in the harvesting and disposing of their crops.

George Smith. About the time that the State Bank of Indiana was started a Scottish youth named George Smith, twenty-five years of age, found his way to this country. A native of Aberdeenshire, he came hither to seek his fortune, and he found it in due time. He arrived at Chicago in 1834 and invested his small means in the purchase of real estate there. Then he returned to Scotland, where he persuaded certain friends, among whom was Alexander Mitchell, to join him in the northwestern part of the United States. In 1838 Smith conceived the idea of establishing a bank. This, however, was not easy, for the Western states and territories were at that time intensely prejudiced against banks. Smith knew that he could not obtain a charter directly, but thought that he might do so covertly. The legislature of Illinois had recently granted a charter for an institution called the Chicago Marine and Fire Insurance Company. Smith took a copy of this instrument to Wisconsin and prevailed upon the territorial legislature to pass a similar one, which became law on February 28, 1839. This was a charter for a joint-stock company to transact the business of marine, fire, and life insurance. It excluded "banking privileges" in express terms from the powers of the corporators, but it authorized them to receive money on deposit and to lend the same on satisfactory security. As the phrase "banking privileges" meant the right to issue circulating notes, this was prohibited. Nevertheless Smith and his associates began to issue certificates of deposit, in the similitude of bank notes, payable to bearer. These certificates were in denominations of $1, $3, $5, and $10, and were generally known as "George Smith's money."

They were at first redeemed in specie at Milwaukee; but as the business grew, Smith established agencies at Chicago, Detroit, Buffalo, Galena, and St. Louis, where New York drafts were given for them at the current rate of exchange. The paid-up capital of the company was $225,000, all of which came from Scotland.

Efforts to Suppress Smith. As the legislature had never intended to grant a charter for a bank, it had enacted no regulations for one. Smith and Mitchell were therefore "wildcatting" in the most barefaced manner, and the legislature was obliged to take notice of this fact. At the session of 1843 a committee was appointed to investigate the company. Its finances were found to be in a sound condition; yet, since it had issued certificates of deposit in a form not contemplated by law, the committee recommended that the charter be repealed. This recommendation was not adopted then, but three years later the legislature did repeal the charter by a decisive vote. The company contended that the question of a forfeiture of its rights must be determined judicially, and it published a notice that in the meantime it would continue its business and redeem its certificates in the usual manner at the head office and at the established agencies. The legislature took no further steps, being restrained perhaps by the belief that, although the business transacted by the company was irregular, it was beneficial to the infant community and that a sudden termination of it might prove disastrous. So the Wisconsin Marine and Fire Insurance Company's bank continued to exist. Its circulation under the charter of 1839 reached the sum of $1,470,235. There were repeated runs on it for specie, but they were always successfully met.[1]

"George Smith's Money." This institution supplies a fresh illustration of the "banking principle." Smith discounted the

[1] "During this fruitful period (1850 to 1860) of immigration, settlement, rapid growth and marvelous development of the resources of this great commonwealth, the Wisconsin Marine and Fire Insurance Company was able, in spite of a dubious charter and hostile legislation, to supply all the channels of money circulation in the Northwest and in the valley of the Mississippi, with a constantly increasing stream of currency, the integrity of which remained to the last absolutely unquestioned." — Hadden, *History of State Banks of Wisconsin.*

promissory note of Mr. A, a wheat-buyer, for, say, $10,000, by writing that sum, minus the interest for ninety days, opposite A's name in the bank's ledger and making a corresponding entry in A's passbook. That became A's deposit and the bank's liability. The act of writing was *ipso facto* the issuance of the bank's credit. It was immaterial whether A exercised his right by drawing his checks and handing them to various people or by taking the whole amount in circulating notes, but he took notes because the people from whom he bought wheat could not use bank checks. He disbursed them among farmers, who paid them to country storekeepers, to farm laborers, teamsters, schoolteachers, clergymen, doctors, etc. By and by they reached the hands of the city merchant who wished to make remittances to New York or Boston. He took the notes to Smith and obtained drafts on those cities at the current rate of exchange. It was no advantage for him to draw gold for the notes, because he could not send it to the East as cheaply as he could buy Smith's drafts. The wheat-buyer, meanwhile, had shipped his grain to a consignee in New York, taking a bill of lading from a steamboat. He had made a draft on the consignee, had attached the bill of lading to it, and sold it to Smith, thus paying his indebtedness to the bank and having something left over for his own profit. This draft had enabled Smith to have funds in New York to pay the drafts which he sold to the merchants.

The farmers would have received gold for their wheat, if they had not taken Smith's notes; but they would have been obliged to wait till the wheat could be sent to the Eastern market and the proceeds returned, or else to secure advances of money from somebody who would wait for repayment till the crop had been sold. Thus, while Smith's profits were large, he did not alone reap the advantages of a paper medium of exchange, which was sound in fact, although unsound in principle. It was sound in fact because Smith and Mitchell were good bankers. It was unsound in principle because it was not accompanied by safeguards to protect the community against the doings of less honorable and less prudent men.

"George Smith's money" was an elastic currency. There was

no limit to his issues, except his ability to redeem them, of which he was the sole judge. Within this limit he discounted all the paper that he considered good. He gave his own paper payable on demand for that of merchants payable at a fixed time. His own paper passed from hand to hand and might stay out a whole year. In the fall, when the crops began to move, there was no lack of money for legitimate trade, because it was as easy to put out these certificates at one time as at another. In the winter, when lake navigation was closed, the certificates answered all the purposes of a local circulating medium. In the spring, when steamboats began to move on the Great Lakes, bringing new settlers and cargoes of goods, the certificates came back to headquarters mainly for the purchase of New York drafts, after which they took their usual round again.

Smith's Retirement. In 1853 the state of Wisconsin passed a law requiring all banks to deposit security with the state comptroller for their circulating notes. As this kind of banking did not suit Smith, he sold his interest in the Wisconsin Marine and Fire Insurance Company and established at Chicago an institution called the Bank of America. He then bought two banks in Georgia, the notes of which he paid out at the Bank of America by discounting commercial paper. These notes he redeemed by giving drafts on New York for them at $\frac{3}{4}$ per cent premium. This was a strictly legal operation and a profitable one. The people had confidence in Smith, and the business prospered until the approach of the Civil War admonished him to abandon his connection with Georgia. He then retired to his native land, and, when he died in London in the year 1900, he left one of the most colossal fortunes in the United Kingdom. The Wisconsin Marine and Fire Insurance Company became a free bank under the state law of 1853, and later became a national bank.

Louisiana Bank Act of 1842. The state of Louisiana in 1842 passed a general banking law which was fit to be a model for other states. Its principal features were as follows: (1) the specie reserve was to be equal to one third of all liabilities to the public; (2) the other two thirds of the liabilities were to be represented by commercial paper having not more than ninety days to run;

(3) all commercial paper to be paid at maturity, and if not paid, or if an extension were asked for, the account of the party to be closed and his name sent to the other banks as a delinquent; (4) all banks to be examined by a board of state officers quarterly or oftener; (5) bank directors to be individually liable for all loans or investments made in violation of the law, unless they could show that they had voted against the same, if present; (6) no bank to have less than fifty shareholders, having at least thirty shares each; (7) any director going out of the state for more than thirty days, or absenting himself from five successive meetings of the board, to be deemed to have resigned and this vacancy to be filled at once; (8) no bank to pay out any notes but its own; (9) all banks to pay their balances to each other in specie every Saturday, under penalty of being immediately put in liquidation. This was the first law passed by any state requiring a definite percentage of specie reserve against deposits, and the proportion was larger than is now considered necessary. Under this law Louisiana became in 1860 the fourth state of the Union in point of banking capital and the second in point of specie holdings. It is a matter of history that the Louisiana Bank Act of 1842 was strictly and intelligently enforced until the city of New Orleans was captured during the Civil War, twenty years later.

State Bank of Ohio. The State Bank of Ohio (established in 1845), like the State Bank of Indiana, was composed of branch banks under a central board of control. The law of 1845 provided that any number of banks not less than seven, then existing or to be organized thereafter, might become branches of the State Bank of Ohio. It started with a capital of $3,300,000. Note-issuing was to be proportioned to capital, in the following manner: any branch might issue $200,000 of notes for the first $100,000 of capital, $150,000 for the second $100,000 of capital, and so on. In this way a bank of $500,000 capital might issue $650,000 of notes. Each branch was required to deposit with the board of control 10 per cent of the amount of its circulating notes, either in specie or in bonds of the state of Ohio or of the United States, as a safety fund for the protection of the holders of notes of all the branches. The board of control might invest any money belonging to the

safety fund in the bonds of Ohio or of the United States, or in mortgage on real estate in the county where the branch was situated, worth double the amount of the loan, exclusive of buildings or other destructible property. The interest on the invested fund was paid to the branch making the deposit. Each branch was liable for the circulating notes, but not for the general debts, of the other branches. In case of the failure of any branch to redeem its notes, the board of control was to make an assessment pro rata on the other branches and reimburse them as soon as the assets in the safety fund could be disposed of; and then the safety fund was to be reimbursed out of the assets of the failed branch before any other creditors were paid. The State Bank of Ohio had thirty-six branches and was highly successful. Its charter expired in 1866.

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CHAPTER XXII

THE NATIONAL BANKING SYSTEM

The National Banking Act was a product of the Civil War. In 1861 Mr. Chase, the Secretary of the Treasury, conceived the plan of making the bank-note circulation of the country a means of enlarging the sales of government securities. In his report for that year he suggested that Congress should take control of the national circulation and require that it be secured by the deposit of government bonds in the Treasury. Among the advantages to be gained, he said, would be uniformity of style, uniformity of goodness, and a large demand for government securities. Of these three merits the last was not the most important, although it then seemed so. Uniformity of the currency, in both appearance and quality, was a boon of inestimable value, upon which rests Mr. Chase's title to fame; yet the expectation that the scheme would be a great financial aid to the government was the real motive for its adoption. In point of fact it contributed very little aid. The transition from the old system to the new was so slow that only $98,896,488 of national-bank notes were outstanding on April 3, 1865, the month in which General Lee's army surrendered. This was less than 4 per cent of the money borrowed by the government for the war.

The first attempt to pass a national-bank bill in the House was defeated on July 12, 1862. In the following December the Secretary renewed his recommendation with great earnestness, and President Lincoln repeated it in his annual message, notwithstanding which it was defeated again in January, 1863. Recourse was then had to the Senate, where it was passed by the close vote of 23 to 21. Then the House yielded and passed the Senate bill without amendment by 78 votes to 64. It became a law on February 25, 1863. Mr. Hugh McCulloch of Indiana, who had

come to Washington to oppose it, became the first Comptroller of the Currency under it. He suggested so many amendments that a complete revision of the act was made by Congress the following year, and passed on June 3, 1864. There was no discriminating tax on the notes of state banks in the original act or in the amended act. In February, 1865, a bill imposing a tax of 10 per cent on such notes was passed in the House by a majority of one vote and in the Senate by a majority of two. It did not become operative, however, until August 1, 1866. The result of this tax legislation was that state banks began to transfer to national charters. On November 15, 1864, there had been organized only five hundred and eighty-four national banks with a capital of $82,000,000. Less than a year later, on October 1, 1865, there were fifteen hundred and sixty-six such banks with a capital of $276,000,000.

The state banks tested the constitutionality of the tax, carrying the case to the United States Supreme Court. The court upheld the tax in the celebrated case of Veazie Bank *vs.* Fenno, decided in 1869. In 1860 there had been fifteen hundred and sixty-two state banks in the United States; by 1868 the number had fallen to two hundred and forty-seven. After 1870, with the rise of deposit banking, the realization that banking could be profitable without the right of note issues, and more liberal state laws, the state banks again began to increase. By 1895 state banks exceeded the national banks slightly in numbers and by 1900 had left them far behind. By the time of the passage of the Federal Reserve Act in 1913 there were practically twice as many state banks as national institutions. If private banks and trust companies are added, the superiority in numbers was much larger.

The National Banking System before 1913

With the passage of the Federal Reserve Act in 1913 there came a series of changes in the national banking system. To bring about these changes was one of the objects of the reformation of our monetary and banking system instituted in that year. It is therefore advisable to present a description of the national banking system as it existed in and before 1913, with a general picture

of the methods by which it exercised its functions and the difficulties engendered.

There was a bureau in the Treasury Department having charge of all matters relating to national banks, the chief officer of which was the Comptroller of the Currency. His term of office was five years. He was required to present to Congress an annual report showing the condition of each national bank and an abstract of the condition of all of them.

Any number of persons not less than five might form an association for banking purposes, to continue not more than twenty years. After the association was formed it was within the discretion of the Comptroller to give it a certificate (which was the equivalent of a charter) or not. The law required that, before granting a certificate, he should satisfy himself that the persons forming the association were of good character, and that they had paid in the amounts of money required for the legitimate objects contemplated by the National Banking Act. He might ascertain these facts by means of a special commission appointed by him for the purpose, if he chose; and if, for any reason, he declined to grant the certificate, he was not required to give his reasons for withholding it.

Capital Stock. No national bank could be organized with a capital smaller than $25,000, and banks of this size could be organized only in places of three thousand inhabitants or less. Banks with a capital of not less than $50,000 might be organized in places of not exceeding six thousand inhabitants. In places of more than six thousand and less than fifty thousand inhabitants there could be no bank with a capital smaller than $100,000. In cities of fifty thousand inhabitants, or more, there could be no bank with a capital smaller than $200,000. The sanction of the Secretary of the Treasury, in addition to that of the Comptroller of the Currency, was required for the granting of a certificate for a bank of less than $100,000 capital, because greater precautions were supposed to be needed in the establishment of the smaller banks. Yet experience did not prove until after 1920 that the former were more liable to failure than the latter. At least 50 per cent of the capital had to be paid in before the bank could

begin business, and the remainder had to be paid in monthly installments of not less than 10 per cent each. If any installments were not so paid, the shares had to be advertised and sold to other persons. If no purchaser was found within three weeks, the amount already paid was forfeited to the association. The shares of the bank were limited to $100 each.

Powers. The powers of banks were limited to the discounting and negotiating of promissory notes, drafts, bills of exchange, and other evidences of debt; receiving deposits; buying and selling exchange, coin, and bullion; lending money on personal security;[1] and issuing circulating notes. They were not allowed to hold real estate permanently except such as might be necessary for the transaction of their business. If they acquired other real estate as security for bad debts, they had to sell it within five years. If a bank were allowed to hold, for indefinite periods, lands and buildings thus acquired, its whole capital might gradually be absorbed in that way, and thus, although solvent, it might cease to be a bank.

Deposit of Bonds. Each bank, before commencing business, was required to deposit with the Treasurer of the United States a certain amount of registered bonds of the United States, whether it issued circulating notes or not. If the capital of the bank exceeded $150,000 it had to deposit at least $50,000 of bonds. If the capital were $150,000 or less, it had to deposit an amount equal to one fourth of its capital. The act of 1864 required all banks to deposit bonds to the amount of one third of their capital. The main purpose of the clause was to sell bonds in the exigency of war.

[1] The act of 1863 authorized banks to make loans "on real and personal security." In the act of 1864 the words "real and" were omitted. It was therefore unlawful for a national bank to lend money on mortgage security but it might, in order to save a bad debt, take such security for loans previously made in good faith. The prohibition of mortgage loans as a feature of banking law is first found, on this side of the ocean, in the charter of the Bank of Montreal, dated March 17, 1821, where it stands in these words as one of the powers granted: "To take and hold mortgages and *hypothèques* on real property for debts contracted to it in the ordinary course of its dealings, *but on no account to lend on land, mortgage, or hypothèque,* nor to purchase them on any pretext except as here permitted." — Breckenridge, *Canadian Banking System*, p. 24.

After the exigency had passed away, the clause was modified so that a bank of $10,000,000 capital was not required to deposit more than one of $200,000. No good reason then existed for a bank without circulation to keep any permanent deposit of bonds in the Treasury.

Directors. The business of a bank was managed by a board of not less than five directors, each of whom must own not less than ten shares of the capital stock not hypothecated or pledged as security for debt. If any director ceased to be the owner of ten shares, he thereby ceased to be a director. Vacancies in the board of directors were filled by appointment made by the remaining directors.

State banks might enter the national system by conforming to the provisions of the National Banking Act, and any state bank having branches could continue to have the same branches after entering the national system.

Liability of Shareholders. The shareholders of a national bank were held individually responsible for all the debts of the bank, to an amount equal to the par value of their shares, in addition to the amount invested therein. An exception was made in favor of any bank "now existing under state laws having not less than $5,000,000 of capital actually paid in and a surplus of 20 per cent on hand." There was only one such bank existing when the law was passed, — the Bank of Commerce in New York, — the shareholders of which were accordingly exempt from the double liability clause.

Circulating Notes. Each bank was entitled to receive from the Comptroller of the Currency an amount of circulating notes equal to the par value of the bonds deposited by it, but not exceeding the market value thereof, and not exceeding its capital stock actually paid in. Whenever the market value of the bonds deposited was reduced below the amount of the circulation, the Comptroller might demand the deposit of additional bonds or money equal to the deficiency. Bonds could be withdrawn by banks by retiring their circulating notes or by depositing lawful money to an equal amount in the Treasury. Only $9,000,000 in the aggregate could be thus retired in one month, nor could the

amount of bonds deposited be reduced below the limitations above stated. The notes were receivable at par for all dues to the United States except duties on imports, and were payable for all debts owing by the United States *within the United States*, except for interest on the public debt and for redemption of the national currency. Every bank was obliged to receive the notes of every other bank at par in payment of any debt due to itself. No notes could be issued of less denomination than $5, and only one third of the amount issued to any bank could be of the denomination of $5. Each bank was obliged to redeem its circulating notes on demand at its own counter. It must also have and keep on deposit in the Treasury of the United States, in lawful money, a sum equal to 5 per cent of its circulation, to be held for the redemption of such circulation when presented in sums of $1000 or any multiple thereof. The cost of transportation and of assorting the notes was paid by the bank issuing the same. All defaced and mutilated notes received at the Treasury were replaced by new ones at the expense of the issuing bank.

Retirement of Circulation. Any bank depositing lawful money in the Treasury for retiring its circulation had to pay in advance for transporting and redeeming the same a sum equal to the average cost of the redemption of national-bank notes for the preceding year. At the expiration of the charter of any bank all its outstanding notes were redeemed as they reached the Treasury; and if the charter was renewed, new notes of different design and corresponding amount were issued to the bank. At the end of three years from the expiration of the old charter the bank deposited in the Treasury lawful money sufficient to redeem the old circulation still outstanding. Any gain resulting from the loss, destruction, or disappearance of notes inured to the benefit of the United States.[1] No bank could issue post notes or any notes to circulate as money except as authorized by the National Banking Act.

[1] The gain resulting to the government after the expiration of the first series of twenty-year charters and until November 1, 1901, from the non-presentation of bank notes for redemption was $2,975,250. The amount of notes outstanding during the period fluctuated between $100,000,000 in 1865 and $340,000,000 in 1875. The rate of destruction and loss of notes in the hands of the people may be roughly estimated at 1 per cent in twenty years.

Redemption of Failed-Bank Notes. In case of default by any bank in the redemption of its circulating notes, the Comptroller declared the security bonds forfeited to the United States and gave notice to the holders of the notes to present them at the Treasury for payment, "and the same shall be paid as presented, in the lawful money of the United States." Then the Comptroller might in his discretion cancel the bonds to an equivalent sum, or sell at public or private sale so much of them as might be necessary. In case of a deficiency in the proceeds of all the bonds to reimburse the government for the redemption of the notes, the United States had a paramount lien on all the assets of the bank (which included the liability of shareholders), and the deficiency had to be made good before any other debts were paid. When the notes were paid, they were canceled.

Tax on Circulation. Each bank was obliged to pay to the Treasurer of the United States a tax of one fourth of 1 per cent each half year on the average amount of its notes in circulation when said notes were secured by the deposit of bonds of the United States bearing interest at 2 per cent per annum. When secured by bonds bearing a higher rate of interest, the tax was one half of 1 per cent each half year. The tax did not apply to circulation, for the retirement of which lawful money has been deposited in the Treasury.

All notes used for circulation as money other than those issued under these conditions by national banks were subject to a tax of 10 per cent, to be paid by the person, firm, association, corporation, state bank, town, city, or municipal corporation which issued or paid them out.

Legal Reserve. Every bank in certain cities designated by the Comptroller, called reserve cities, was obliged to keep a reserve of lawful money equal to 25 per cent of its deposits. All other banks were obliged to keep a like reserve of 15 per cent, but three fifths of the said 15 per cent might consist of balances on deposit in banks approved by the Comptroller, in the reserve cities. Any bank in the reserve cities might keep one half of its reserve as deposits in a "central reserve city," that is, New York, Chicago, or St. Louis. Both gold certificates and silver certifi-

cates were counted as part of the reserve. The 5 per cent redemption fund on deposit with the Treasurer of the United States was also counted as part of the reserve. Failure to keep the legal reserve was followed first by notice from the Comptroller to make good the reserve within thirty days. In case of failure to do so, the Comptroller might, with the concurrence of the Secretary of the Treasury, put the bank in liquidation. This clause was rather for warning than for immediate enforcement. No bank was excused for stopping payment of its deposits when it still had 25 per cent of the same in cash. Whether severe measures should be taken, in case the reserve were below the legal limit, would depend upon the general character of the bank and the nature of its assets. Banks when below their legal reserve were not allowed to increase their liabilities by making new loans or discounts otherwise than by purchasing bills of exchange payable at sight, or to make any dividend of profits until their reserve had been restored.

Banks were allowed to charge such rates of interest on loans as were allowed by the law of the state in which they were situated, and no more, but in discounting bills of exchange on other places they might charge the current rate of exchange in addition.

One tenth of the net profits had to be carried to the surplus fund of each bank until the surplus was equal to 20 per cent of the capital.

Restrictions. A bank could not lend more than one tenth of its capital to one person, corporation, or firm, directly or indirectly. But the discount of bills of exchange drawn in good faith against actually existing values, and the discount of commercial or business paper actually owned by the person negotiating the same, was not considered as money borrowed. A bank could not lend money on the security of its own shares, nor be the purchaser or holder of its own shares unless they were taken as security for a debt previously contracted in good faith, and shares so taken had to be sold within six months.

No bank could become indebted to an amount exceeding its unimpaired capital except for circulating notes, deposits, drafts drawn against its own funds, and dividends due to its own share-

holders. No bank could permit any part of its capital to be withdrawn in the form of dividends or otherwise. If the capital was impaired by bad debts or otherwise, the deficiency must be made good within three months after receiving a requisition from the Comptroller, under penalty of being put in liquidation. No bank could certify a check for a customer for more money than he had on deposit at the time.

Each bank was obliged to make to the Comptroller not less than five reports each year, showing its condition at dates, already past, to be designated by him, and he could call for special reports from any particular bank whenever he chose to do so, which reports were published in a newspaper in the place where the bank was situated, and at the expense of said bank.

The shares of national banks were liable to taxation by authority of the states in which they were situated, at the same rates as other moneyed capital owned by the citizens of such states, but the shares of any national bank owned by nonresidents of a state were taxed in the city or town where the bank was located and not elsewhere.

The Comptroller of the Currency, with the approval of the Secretary of the Treasury, appointed suitable persons to make examinations of the affairs of every bank and to make full and detailed reports thereon to the Comptroller. The fees allowed by law to the examiners were paid by the banks examined.

In case of the insolvency of a national bank the Comptroller of the Currency appointed a receiver, who took possession of its books, records, and assets and proceeded to wind up its affairs and enforce the personal liability of the shareholders. A receiver might be appointed also in case the capital stock of a bank was reduced below the legal minimum and remained so for thirty days; also for failure to make good its lawful money reserve within thirty days after notice; also for purchasing or acquiring its own stock except to prevent loss upon a debt previously contracted in good faith; also for the false certification of a check.

No bank could give or receive national-bank notes, United States notes, gold certificates, or silver certificates as security for a loan, or agree for a consideration to withhold such from use.

It was not lawful for any person to design, engrave, print, or use any handbill or advertisement in the likeness or similitude of the circulating notes or other obligations of any national bank, or intentionally mutilate, deface, or disfigure any such notes or obligations.

The penalty of fine and imprisonment was imposed for counterfeiting bank notes or knowingly passing or attempting to pass counterfeited notes; also for issuing the circulating notes of banks that had expired; also for falsely certifying checks; also for embezzling the funds of banks or putting the notes of a bank in circulation without authority from the directors; also for making a false entry in the books or reports of a bank with fraudulent intent, or aiding or abetting the same.

Public Deposits. Any national bank might be designated by the Secretary of the Treasury as a depositary of public money. A certain number were so designated, in places where no subtreasury existed, for the convenience of the government in making local disbursements. These were called regular depositaries, and the deposits of the government therein were running accounts like those of private persons, upon which no interest was paid. Deposits made in banks for the purpose of restoring funds to the money market were termed special deposits, for the withdrawal of which notice was given in advance, and upon these the act of May 30, 1908, provided that interest should be paid at such rate as the Secretary of the Treasury might prescribe, not less than 1 per cent per annum.

The National-Bank Note. The history of this note was discussed in Chapter VII. In 1882 the original requirements of the necessary amount of bonds to be bought was changed so that banks with a capital of $150,000 or less needed to buy bonds to one fourth instead of one third of their capital. Banks with a capital exceeding that figure had to buy at least $50,000 in bonds for the purpose of securing note circulation. The act of March 14, 1900, permitted the national banks to issue notes to the full amount of the par value of the bonds but not in excess of their market price.

When the national banking system was created, Congress

limited the total amount of national-bank notes which might be issued to $300,000,000. Up to this sum two other factors had an effect upon the total amount issued: government bonds available for purchase as security and the paid-in capital of the national banks. In 1870 the limit was raised by Congress to $354,000,000. Finally, by the act of January, 1875, providing for the resumption of specie payments, this restriction upon the circulation of national banks was removed. Originally national banks were required to keep the same reserves against notes outstanding as against deposits: 25, 25, and 15 per cent, depending upon whether the bank was located in a central reserve, reserve, or other city. This reserve requirement against notes was removed in 1874.

The original limitation upon the amount of notes which could be issued caused considerable difficulty between 1867 and 1870, when banks found that they could not issue notes to the amount desired, because of this restriction. By 1882 the amount outstanding had reached approximately $360,000,000. From that date until 1891 there was an almost steady decline to about $170,000,000 due to the fact that the government was retiring its bonded indebtedness. Moreover, because of the improvement in national credit the price of government obligations was rising, which restrained the incentive of banks to purchase bonds for this purpose. The long depression of the nineties and the Spanish-American War made conditions again favorable for note issue, and the amount outstanding had again reached $360,000,000 by 1901. In 1909 the figure passed the $700,000,000 mark for the first time. If it had not been for the increase in money in circulation resulting from the Bland-Allison Silver Purchase Act of 1878, it is possible that the decrease in national-bank notes outstanding after 1882 might have had serious consequences. Had the government continued to retire its debt after 1891, the banks would have been forced to cease the issuance of their notes.

Inflexibility of Note Issues. The principal defect of our national banking system was the rigidity of its note circulation. In a broad sense the volume of notes was regulated, not by the wants of trade, not by the amount or kind of commercial paper offered for discount, but by the market price of United States bonds.

Even if the bonds were sufficient in amount and satisfactory in price, the note circulation would still be lacking in the elasticity which should characterize a good system. By elasticity is meant the capacity to increase or diminish in volume in accordance with the needs of the community, and simultaneously therewith. It has been shown in a previous chapter that where note issues are unrestricted the amount of notes outstanding at any time depends not upon the volition of either the banker or the depositor, but upon the public demand. There were some seasons of the year, also, when a greater quantity was wanted than at others, and these familiar ebbs and flows varied in different localities and in different trades. A flexible currency is one which rises and falls in volume harmoniously and simultaneously with these trade movements.

Seasonal Demand for Notes. Note-issuing is, to the banker, simply a question of profit. When he buys bonds and deposits them in the Treasury as security for circulation, he virtually buys notes from the government; and his question is whether he can get more profit by such an investment than by using his capital in other ways. Aside from the interest on the bonds his gains arise only from the average amount of his notes which the public will take and hold. There will always be some notes in transit to Washington for redemption and thence back to the bank; and after they come home, they will remain unused for a while. During this period they are unproductive capital. Therefore the banker will take from the government no more notes than he thinks he can keep in circulation. He will hold none for emergencies. Thus the national-bank currency remains for long periods nearly uniform in amount, while in countries where notes are issued according to the "banking principle" there is a seasonal outflow and inflow of notes corresponding to the greater or less demand for them. The contrast between Canada and the United States in this particular was formerly very marked.

In every country the alternations of seedtime and harvest have a marked influence upon the currency movement. During the spring and early summer, when the farmers are engaged in planting and tilling their crops, they usually incur debt to the country merchants for household supplies; and the currency movement is

then sluggish. When harvest comes, a great deal of work must be done within a short space of time, and this requires a large amount of currency to pay the wages of laborers and to meet the various claims against the farmers which then mature. These seasonal demands are imperative. They come almost simultaneously in large sections of the country. Every other demand for currency is secondary to this, since the only time to harvest the crops is when they are ripe.

The annual crop movement in Canada was marked by an uplift of the note circulation, while no corresponding rise was observable in the United States. What took place among us was a withdrawal of the cash reserves of the banks and a transference of the same from the commercial centers to the farming districts, causing a contraction of loans and discounts to a much larger amount than that of the cash so withdrawn. A reverse movement took place after the crops were moved. It was the opinion of good judges that these alternate contractions and expansions exceeded two hundred million dollars in both instances. No such unsettlement of bank reserves took place in Canada, because the banks could issue their own notes without cost in the autumn and retire them without cost after they were sent home for redemption.

Extending the Public Debt. When proposals were made in 1892 and succeeding years for a bank-note circulation based on the assets of the banks instead of government bonds, one of the reasons advanced for the change was that with the extinction of the national debt the bond security of the notes would be withdrawn and that the existing system would necessarily come to an end.

At that time nobody had conceived the idea of extending a public debt already matured if the government had the money with which to pay it and stop the interest. Nobody would have dared to propose it, for at that time the national finances were the leading issue in politics. But new political issues arose. The Spanish War came. The public mind was no longer centered on finance. So the men in authority, who ought to have foreseen the coming crisis and made plans for bank circulation on some other basis, extended a large part of the maturing public debt for thirty

years, although they had the money in hand or in sight to pay it off and stop the interest.

In preparation for this step Congress passed the act of March 14, 1900, authorizing the Secretary of the Treasury to refund the outstanding debt maturing in 1904, 1907, and 1908 into new bonds to run thirty years, bearing interest at 2 per cent per annum. Prior to the passage of this act it had always been the policy of the government to pay its interest-bearing debts as soon as possible, in order to avoid unnecessary burdens upon the taxpayers. To this end bonds redeemable at the pleasure of the government after some short period were generally preferred. Thus the 5-20 bonds issued during the war were made redeemable at any time after five years but payable at the end of twenty years. Under this system the Treasury could use its surplus revenues to pay bonds at par instead of buying them in the market at a premium, and the money would be restored to the channels of business promptly.

How this change of policy was carried into effect was shown in the Treasury report for 1904, in the following tabular statement:

	3 Per Cents	4 Per Cents	5 Per Cents	Total
Amount refunded into 2 per cent consols of 1930.	$119,260,000	$351,578,000	$72,071,300	$542,909,960
Interest saved on old bonds to maturity	27,283,662	89,852,710	13,050,355	130,186,727
Interest to be paid on new bonds to maturity of old bonds	18,189,108	44,926,355	5,220,142	68,335,605
Premium paid for old bonds . . .	6,239,833	36,432,250	6,872,572	49,544,655
Premium received for new bonds .	407,606	1,513,778	. . . . .	1,939,384
Net profit	3,262,327	10,025,883	957,641	14,245,851

In this way the policy of the government was reversed, and nearly $550,000,000 of the public debt was put beyond the chance of extinction for nearly a quarter of a century, except by purchase

in the open market. For the privilege of making this swap the government paid a bonus of nearly $50,000,000 on the old bonds, of which it recovered less than $2,000,000 as premium on the new ones.

The foregoing tabular statement purports to show a net profit on the refunding operation by ignoring the interest (amounting to $257,837,642) on the new bonds after the maturity of the old ones. After deducting the apparent profit shown above ($14,245,851), the loss on the whole transaction is enormous, but we cannot reduce it to exact figures, because we do not know how much of the extended debt we might have paid off if it had not been thus extended. We know, however, that a surplus of $240,000,000 was on hand in 1907, and that the interest on that amount might have been extinguished. Of course the premium on the maturing bonds would have extinguished itself.

Loss of Interest. The 4 per cent bonds of 1907 were not all included in the list embraced in the Treasury report quoted above. Some of them were left to run to maturity (July 1, 1907), so that they might be paid if the government should then have the money in hand. The government did have the money, but instead of applying it to that purpose, $50,000,000 of bonds were extended for twenty-three years at 2 per cent interest, and the money which might have been employed in payment of debts was deposited in banks. The interest which the government was thus obligated to pay, and which it might have wholly saved in this instance, was $23,000,000 — literally cast away by a stroke of the pen.

The excuse for this kind of financiering was that if the government's interest-bearing debt were paid, there would be a shortage of bonds to be held as security for national-bank notes. If that was a good reason for keeping $240,000,000 of bonds alive when the government had the money in hand to pay them off, then the same reasoning would justify the selling of new bonds when there was no use for the money which they brought in except to deposit it back in the banks. And that is what the Secretary of the Treasury did in November, 1907. Leaving out of account the money paid for the bonds and redeposited in the banks (as equal

quantities on the opposite sides of an equation cancel each other), this was a case where the United States, in its capacity as a government, gave the banker its note bearing semiannual interest, and payable at the end of thirty years and not before, and in its capacity as a body of citizens took in exchange the banker's note payable without interest at no particular time. But even this device of extending a debt and continuing needlessly to pay interest on it did not suffice long, since population and trade grew more rapidly than our financiers could add to the public debt. Hence the proposal to use other bonds than those of the government as security for national-bank notes.

Secretary Shaw's Policies. In 1902 the Secretary of the Treasury (Leslie M. Shaw), finding the element of elasticity wanting in our currency system, sought to supply the defect without any change in the law. He first made a rule changing the security required for the deposit of government money in national banks. By the terms of the law this security was to be "United States bonds *and* otherwise," the word "otherwise" having been inserted, as the debates of Congress prove, in order to include the personal bonds of the bank's officers. No record could be found of any deposit having ever been made in a bank on any other collateral security than United States bonds, until Mr. Shaw decided that the word "and" was equivalent to the word "or." State and municipal bonds were accepted under the new rule. In making the announcement of this change of practice, however, the Secretary stipulated that any government bonds released as security for deposits should be used as security for additional bank notes, and in this way an artificial stimulus was applied to the taking out of new circulation. Two years later the Secretary added railroad bonds to the list of securities acceptable for deposits.

Simultaneously with the foregoing rule Secretary Shaw made another which released the national-bank depositories from the requirement of keeping a cash reserve against government deposits. Although the law required the reserve to be held by each bank against "the aggregate amount of its deposits," the Secretary argued that the government was abundantly protected by the securities held, and hence that a cash reserve was, in this case, a

superfluity. The New York Clearing House took the view that the law could not be repealed by the Secretary, and hence that its members should continue to maintain a reserve of 25 per cent against all deposits, including those of the government. The act of Congress of May 30, 1908, however, repealed the reserve requirement as to government deposits.

In 1903 Mr. Shaw made a fresh ruling, that national banks which had been designated as depositories of public money were branches of the Treasury, and hence that public funds might be transferred to or from such banks at any time. This rule was of no importance except as showing the drift of the Secretary's mind and his purpose to get the public funds into shape, to be expeditiously moved hither and thither for what he considered to be the advantage of trade and commerce from time to time.

In 1906 there was an international movement of gold toward this country, which Mr. Shaw thought needed to be accelerated. He accordingly notified two New York banks privately that if they would engage gold for importation he would deposit an equal amount of the metal in their vaults so that they should not lose the interest during the time of transit from the foreign port to the United States, and a few days later he gave public notice that he would do the same for other depositary banks. This announcement lowered the gold-import point and hastened the arrival of the amount of metal which the conditions of international trade called for, but did not increase the amount in the aggregate. It had the effect also of giving the depositary banks an advantage over all other persons, firms, and corporations engaged in the business of importing gold.

In the same year the Secretary made such arrangements for moving the crops in the coming autumn as he thought would avert the usual autumnal pinch. He withdrew $60,000,000 of public money from the banks and locked it up, in order to have a supply to put out again in the harvest season. On September 27 he announced that $26,000,000 would be put in the banks to relieve the money market, but that it should not be used to foster speculation in the stock market. It would be widely distributed

far from the purlieus of Wall Street, among the banks of the West and South. In spite of this elaborate plan of campaign the speculators had the best of it.[1]

In his annual report for 1906 Mr. Shaw expressed the opinion that the Secretary of the Treasury ought to be clothed with full power over the bank circulation, so as to expand or contract it at his own volition; and also that he ought to have authority "to require all banks, at certain times fixed by him, to slightly and gradually increase their reserves and hold the same within their own vaults, with corresponding authority to release the same from time to time, as in his judgment will best serve the business interests of the country." He did not claim as his exclusive possession the omniscience needed for the exercise of such powers, but generously conceded it to all his predecessors and all his successors in office. Shortly after writing this report he ceased to be Secretary of the Treasury.

All the acts above enumerated were either violations of the statute law or assumptions of power never contemplated by the lawmakers. They were glaring examples of "paternalism in government," which assumes that the holders of public office know how private business ought to be conducted better than businessmen themselves, and think that their powers ought to be made commensurate with their superior knowledge. The natural and immediate consequence of Mr. Shaw's action was that the speculators in Wall Street cast prudence to the winds and clamored for "Treasury relief" whenever their own speculations had produced tightness in the money market.

[1] "Notwithstanding his announcement as to the distribution of the deposits, it soon appeared that probably half of the $26,000,000 had found a resting place in the banks of New York. Amounts at first offered to banks in other cities were declined, because the banks could not supply the required collateral, and other deposits actually made in interior cities were reconsigned to New York because of the higher rates of profit there prevailing." — "The Treasury and the Banks under Secretary Shaw," by A. P. Andrew, in the *Quarterly Journal of Economics*, August, 1907.

The Panic of 1907

Early in October, 1907, there were signs of trouble in the New York Stock Exchange. Prices of securities fell with great violence. On the sixteenth there was a crash in the market, started by the failure of certain speculators in copper-mining stocks. Public attention was thus directed to a group of banks in the management of which these persons were influential. These banks fell under suspicion and the rumors extended to other speculators and banking institutions supposed to be affiliated with them. On the twenty-first the National Bank of Commerce announced at the clearinghouse that it would no longer be responsible for checks drawn on the Knickerbocker Trust Company, one of the largest, and perhaps the most conspicuous, of the financial institutions of the city. On the following day there was a run on it by depositors, and it closed its doors after paying $8,000,000 over its counter.[1]

With the failure of the Knickerbocker Trust Company the panic became general. Prominent bankers held a meeting at midnight to take measures to stop it, and the Secretary of the Treasury, Mr. Cortelyou, came from Washington and promised to assist.

On the twenty-third a run on the Trust Company of America began, and the bankers gave it assistance, so that it was able to pay out $13,000,000 in cash in one day without closing its doors. On the same day a run was started on the Lincoln Trust Company, but was successfully met. There was a renewed and heavy break on the stock exchange, and the rate for call money rose to 90 per cent; time loans could not be had on any terms. The Westinghouse companies of Pittsburgh were placed in the hands of receivers for inability to meet maturing obligations.

On October 24 the panic reached its height; call money was not obtainable. A bankers' pool was organized to deal with the situation. By offering $25,000,000 at 10 per cent they broke the deadlock. Secretary Cortelyou deposited $19,000,000 in the banks.

[1] The Knickerbocker Trust Company was resuscitated after the panic by new subscriptions to its capital stock.

The run continued on the two trust companies, but all demands were met by these banks.

Drain on Bank Reserves. During this time there had been a heavy drain on the New York bank reserves from banks in other parts of the country. On the twenty-sixth the clearinghouse decided to issue loan certificates in the mode prescribed in the panic of 1893. This was virtually a general bank suspension, but while most of the banks used their discretion either to pay checks presented at their counters in cash or to stamp them "good through the clearinghouse," several of them paid all checks presented without any discrimination whatever. The example of New York was followed almost instantaneously by all the clearinghouses of the country, including that of Chicago, which had never before issued a loan certificate. A premium on currency made its appearance on November 2, as in the panic of 1893, and the various devices employed in that year for paying wages and carrying on retail trade by means of small certificates and pieces of stamped cardboard were repeated everywhere. The premium on currency increased gradually to 4 per cent, as quoted in the newspapers, but in fact it reached 5 and 6 per cent in some instances where large sums were imperatively required. This was a case where wholesale prices were higher than retail. The exchanges of the country were thrown into confusion. On October 29 Chicago drafts on New York were quoted at $2.50 per $1000 discount. In other places the usual country balances in New York had been so far drawn down that the banks in the interior, although having plenty of cash in hand, could not sell drafts on New York at all.

Importation of Gold. It happened that we had been blessed with an abundant wheat harvest, while there had been a shortage in all European countries except France. The price of wheat was accordingly the highest that had been known for several years, and the export of this staple gave our bankers an abundance of commodity bills with which to command gold abroad. Sterling exchange fell to 4.82 on October 26 and to 4.80 on October 28, on which day $18,750,000 in gold was engaged in London for importation. This movement continued until December 23, during

which time $107,000,000 in gold was imported, all of which was paid for with exported grain and cotton. During a part of this movement the quotations for demand sterling were above par (4.866), and even went as high as 4.91, so that some people said we were buying gold at a premium. But the quotation 4.91 was not a quotation of cash, but of bank checks that were selling in Wall Street at about 96 cents on the dollar. The premium on currency continued until the last of December. During this interval of two months foreign bills of exchange drawn on American houses, banks, or corporations were of uncertain value. They might be paid at par or at varying rates of discount according to the will of the debtor. Interest due on bonds and other obligations held abroad was subject to the same uncertainty, for although legally payable at par, few creditors could afford to lose time and hire lawyers to bring suit to recover the difference. This was the most humiliating feature of the panic. It justified the saying of a foreign critic that the United States was "a great international financial nuisance."

Action of the Government. On November 17 announcement was made at Washington that the Treasury would come to the relief of the business community by issuing $50,000,000 of Panama Canal bonds and $100,000,000 of one-year 3 per cent certificates of indebtedness. As both of these operations contemplated the borrowing of money from a market already staggering with the demands upon it, the promised relief was never experienced. The design of the President and Secretary was to issue a security which, by the offer of 3 per cent interest, would draw hoarded money out of its hiding places, and also to increase the amount of 2 per cent bonds in the market which could be used as security for national-bank notes. There was a brief spurt on the stock exchange when this plan was promulgated, but on the next day the depression was as great as before, and on the three following days it became still greater. Critics said that the proposed issue of certificates was not authorized by law, and that the proposed issue of bonds, if lawful and successful, would be a fresh drain on the cash reserves of the banks which could not be recouped in months. Announcement was subsequently made that

75 per cent of the subscriptions for 3 per cent certificates would be allowed to remain as deposits in the vaults of the subscribing banks and 90 per cent of the subscriptions for Panama Canal bonds. On that basis $25,000,000 of Panama Canal bonds were sold and $14,086,500 of 3 per cent certificates. Banking opinion was nearly unanimous that the government's intervention had not been helpful, but the contrary.

Cause of the Panic. The cause of the panic was the existence of a large number of debts that could not be paid at maturity. Some debts are maturing all the time that cannot be paid. These cause a small crisis in each case, but it is noticed only by the individuals immediately concerned. If all persons who are in debt could pay their obligations when they fall due, there could be no financial crisis, large or small. The cause of an excessive amount of debt that cannot be paid must be sought in the varying conditions of trade, which are simply the indices of varying states of the public mind.

There are periods when all or nearly all men in business are very hopeful and enterprising. They are then apt to extend their business and take risks. They are eager to borrow money, purchase goods on credit, enlarge their works, buy more land, erect new buildings, buy stocks on margin, — in other words, to speculate. The prices of the things bought are forced up by the competition of buyers, but the necessity always exists of paying for the things purchased and meeting the obligations incurred in terms of gold dollars.

A time comes in the upward rush when this cannot be done, because the prices are too high. Then the speculators begin to fail. Those whose liabilities are largest in proportion to their capital fail first. Their failure brings down others, who, in ordinary times, would "pull through," even though they might incur losses through improvident ventures. Presently the whole business community perceives a danger impending — the danger that any person owing money and not having it in his immediate possession may not be able to get it. This starts the panic.

Perhaps the most striking phenomenon of the panic was the rush of the country banks to draw their money out of the central

reserve cities, where the bulk of it was held. This proves that there is much human nature in bankers, but it proves even more conclusively that our banking system was behind the age and needed betterment.

Ups and Downs of Speculation. Periods of confidence and periods of depression come and go in undulations. The business world has had its ups and downs, not exactly with regularity but with something approaching it, during the past three centuries. The essential factor and prime cause of a commercial crisis is speculation leading to inflated prices and the piling up of debts based upon such inflation, which the debtors cannot pay. The crisis of 1907 was of this kind. There is no evidence that the crisis was due in any special manner to stock speculation. Doubtless stock trading ran *pari passu* with other trading; it generally does. The inflation which prevailed generally did not avoid the precincts of the stock exchange, but that institution was not a sinner above others. It was the most conspicuous sufferer, however. More columns in the newspapers were given to it, more eyes were turned upon it, than upon any other. So when the rate of interest went up momentarily to 125, there was a shock in the financial world. But the plight of the man who paid 125 per cent overnight or for a few days, in order to avoid a greater loss, was not so bad as that of the merchant or manufacturer who could not get his paper discounted at all. The benevolent usury law prevented him from paying more than 6 per cent, and there was no money to be had at that rate on a commercial basis — none except as a matter of favor. Banks find it to their interest to take care of their regular customers in times of panic, but they have the right to discriminate, and they exercise it. The temptation of 125, or even 25, per cent is not easily resisted.

Shortly after the panic of 1907 began, a rumor became current that "Wall Street" had designedly caused it in order to depress the prices of stocks, to frighten weak holders, and to profit by the ruin of the community. This conception was erroneous, but it derived plausibility from the fact that stocks had taken a sudden and violent downfall without any apparent cause and that this fall continued increasingly from day to day. The immediate cause

was the simultaneous selling of securities by holders in all parts of the country, and in Europe also, who perceived that there was trouble impending and who wanted cash to meet maturing obligations. There were more sellers than buyers at the prices prevailing on the stock exchange at any given moment, and that fact caused the decline. The remoter cause was a long course of overspeculation, not only in stocks but in nearly all kinds of property here and elsewhere.

Trust Companies in the Panic of 1907. A trust company, as its name implies, is a corporation organized to receive and perform trusts for a compensation fixed by law or agreed upon by the parties to the trust. One of the most common forms of trust is that of railway mortgages, where the trust company becomes the mortgagee in trust for the bondholders, registers the bonds, collects the interest as it becomes due, pays it to the bondholders, and in case of default takes legal steps to protect their interests. But in the progress of time the trust companies drifted into the banking business, buying commercial paper, lending on collaterals, etc., so that in the large cities the trust business became an insignificant part of their total business, perhaps not more than 5 or 6 per cent of the whole. Thus they have become important rivals of the national banks in the principal cities of the Union. One thousand and seventy-nine companies reporting to the Comptroller of the Currency in 1909 showed capital of $362,763,223, and deposits amounting to $2,831,835,177. In the year 1905 the thirty-three trust companies of New York City held $1,008,000,000 of deposits, while the national banks in the same territory held only $947,000,000, and a portion of the latter consisted of deposits made by and belonging to the former. The bulk of the reserves of the trust companies was kept as deposits in the banks, for which deposits they received a low rate of interest. They were thus enabled to pay interest to individual depositors, which the banks did not do, and in this way they attracted deposits which would otherwise have gone to the banks. Thus there was an ever-present temptation to incur demand liabilities resting upon inadequate cash reserves, and this constituted an element of danger in the financial situation, upon which public attention was at once

focused when the first symptoms of panic were shown in October, 1907.

The inherent danger of a trust company's doing a trust business and a banking business simultaneously was shown by the sudden failure of the Knickerbocker Trust Company, which had 17,000 demand-deposit accounts. This failure started the panic in New York, for which there was plenty of inflammable material. The demonstration of the weakness of trust-company banking made so great an impression on the public mind that Governor Hughes appointed a commission, with A. B. Hepburn, ex-Comptroller of the Currency, at its head, to investigate and report upon the subject, with a view to remedial legislation. In pursuance of the report of this commission the legislature passed a law requiring trust companies in the borough of Manhattan, New York City, to keep a cash reserve of 15 per cent against all deposits payable on demand or at less than thirty days' notice, except such as were secured by New York State bonds.

National Banking under the Federal Reserve Act

The Federal Reserve Act required all national banks to become members of the Federal Reserve System or give up their charters. Many of them objected strenuously to doing so and accused the government of attempting to intimidate them and bludgeon them into membership. The banks had favored the Aldrich Plan for a central bank, because it was largely under banker control. The currency commission of the American Bankers' Association attacked the Federal Reserve System as a form of "socialism," objecting to the dominant position of the Federal Reserve Board, with its membership appointed by the President. Many other objections to membership were raised; many dire prophecies of the results to follow were made. The Federal Reserve System was brought into existence in spite of the violent opposition of the great majority of the national bankers.[1]

[1] See C. S. Tippetts, *State Banks and the Federal Reserve System* (D. Van Nostrand Company), pp. 27–29, 60–100.

What was created was really not a central bank, but a system of twelve central (regional) banks, which operate on the whole in a manner somewhat similar to one central banking system. Some national banks refused to join and gave up their charters; the great majority, however, did join, many of them still protesting. Their objections may be listed as follows:

1. Distrust of the administration of the system.
   a. Fear of political influence.
   b. Dislike of supervision by the Federal Reserve Board.
   c. Dislike of governmental interference, red tape, too many reports and examinations.
2. No need for the facilities of the system; no advantage in membership, since all that was necessary was to have a few large banks as members, and these could pass on to others the advantages of membership by helping them.
3. No interest was paid on the reserves which had to be deposited in the reserve banks.
4. Restrictions on lending and other policies.
5. The small national banks would still have to rely heavily upon their large city correspondents for many services.
6. The rediscounting feature was not of great value, since rediscounting was an uncommon practice.

It is impossible here to follow the history of all these objections and to relate how with the passage of time many of them lost much of their force. Probably the World War brought home to many recalcitrant bankers the necessity for such a system, even though they might not be satisfied with all the details of its structure and administration.

One of the first problems confronting Federal reserve officials was the steps which should be taken to acquire a larger state-bank membership. It was realized that the national banks must be convinced of the necessity of retaining membership, while at the same time conditions must be made attractive for state banks. If requirements were lowered for the state banks, to induce them to join, and not lowered for the national banks, there would be dissension and many national banks might drop out. The lack of unity in our banking system was nowhere more apparent than in

this question. Dual control, by the states and the national government, has plagued banking in this country ever since the establishment of the first Bank of the United States in 1791. It will not be settled until *all* banks are required to obtain national charters or at least to become members of the Federal Reserve System.

Changes in the National Banking Act. There have been a number of minor changes in the National Banking Act since 1912, but the important amendments are to be found in the original Federal Reserve Act (including its amendments), the McFadden-Pepper Act of 1927, the Emergency Banking Act of March 9, 1933, and the Bank Act of June 16, 1933.

1. The Federal Reserve Act reduced reserve requirements eventually from 25, 25, and 15 per cent respectively against all deposits to 13, 10, and 7 per cent against demand deposits (depending upon whether the bank was in a central reserve, reserve, or other city) and 3 per cent against time deposits. This was a great reduction and produced a situation favorable to an inflationary bank expansion, which later took place.

2. National banks were permitted, upon approval by the Federal Reserve Board, to establish trust departments to exercise the fiduciary functions which previously had been limited to state institutions. The most important of these trust powers are the right to act as executor or administrator of an estate, guardian of a minor, transfer agent or registrar of securities, trustee, assignee, and receiver. The trust companies objected vigorously to this broadening of the field of activity of national banks and tested its constitutionality in the courts. The right of the national banks so to act was upheld in 1917 by the Supreme Court of the United States. Extensive litigation developed in many states because state courts were reluctant to permit the exercise of such functions by institutions not exclusively under state control. In most cases, however, the rights of the national banks were upheld.[1] Other Supreme Court decisions were necessary to settle points at issue.

[1] See C. S. Tippetts, "Fiduciary Powers of National Banks," *American Economic Review*, September, 1925; also, Thomas J. Anderson, *Federal and State Control of Banking*, Chap. V.

By 1926 over twenty-one hundred national banks had been granted permission by the Federal Reserve Board to exercise various fiduciary powers. Because of bank failures the number declined to eighteen hundred in 1933. Nearly 30 per cent of the national banks act in a fiduciary capacity today, and the total funds handled in this manner amount to approximately $6,000,000,000. Many national banks have found this profitable, and there will probably be a gradual extension of this field of activity.

3. Previous to the Federal Reserve Act no national bank could make a direct loan on real-estate security. In many cases, however, a bank was willing to make a loan because it realized that the borrower had real-estate holdings which could be seized in case of default, and endorsers of notes were also frequently approved for this reason. But the fact that state banks competing with the national banking associations could lend large sums on real estate led to a widespread demand that the national institutions should be granted this power. Consequently the act permitted these banks to lend an amount equal to 25 per cent of their capital and surplus or one third of their time deposits on improved and unencumbered farm lands within a radius of one hundred miles of the office of the lending bank. The amount of the loan could not be greater than 50 per cent of the estimated value of the land, and the loan could not run for more than five years.

Loans could be made on city real estate under the same restrictions but for only a one-year period. However, this extension of their lending powers did not entirely satisfy the national banks, and during the years from 1924 to 1927 there occurred an alarming exodus from the national system. Many of the oldest and best-known national banks either merged with state banks or trust companies or reorganized as state institutions. There were a number of reasons for this shift from national to state charters, one being that a state bank or trust company could do things that a national bank could not do. For example, there was no such strict limitation upon state banks in respect to real-estate loans as there was upon national banks. In order to satisfy the national banks in this respect the McFadden-Pepper Act of 1927 gave them more liberal lending privileges on real-estate security.

The McFadden-Pepper Act permitted the national banks to lend to 25 per cent of their capital and surplus or *one half* of their time deposits in this manner. The time limit on city real-estate loans was raised to *five* years, the same as for farm loans. Many national bankers claimed that this was a great boon, since they could now compete with state banks on more favorable terms. It may be questioned, nevertheless, whether this was wise in view of what has happened since 1929. It is true that the amendment prevented some national banks from shifting to a state charter, but some authorities contend that this was accomplished by a general lowering of the standards of the national system. Again is revealed the difficulty we face in perpetuating our dual banking system, for, when we lower the standards of national banking to meet the competition of state institutions, the entire banking system is weakened. The depression has revealed clearly that lending on real estate is a very dangerous practice for commercial banks. Although a portion of savings deposits may properly be so invested, mingling the assets behind demand and savings deposits, instead of segregating them, has caused great difficulties.

4. The original Federal Reserve Act left the time limit for the charter of a national bank at twenty years. In 1922, however, the limit was raised to ninety-nine years. One reason for this change was that national banks were definitely limited in their exercise of fiduciary functions by so restricted a life. In order to strengthen the national banks still further in this field of activity the McFadden-Pepper Act of 1927 made the charter indeterminate. The life of the Federal Reserve System itself was similarly extended. This does not mean that the charters run perpetually; they are merely indeterminate.

5. A national bank had been permitted to lend to any one person, firm, or corporation a sum not in excess of 10 per cent of its capital and surplus. But this limitation did not apply to bills of exchange drawn against actually existing values or to the discount of commercial or business paper actually owned by the person negotiating it. This provision was a great source of difficulty and these exceptions have to be interpreted, especially since, if the Federal reserve banks decided that one borrower had

been granted loans in excess of the limit, *no* paper bearing his signature could be rediscounted at a reserve bank. Amendments in 1917, 1919, 1922, and 1927 endeavored to clear up the situation. The result is that it is now possible to exceed the 10 per cent limitation. For example, the limit may be legally exceeded on a loan secured by marketable, nonperishable staple commodities, if backed by an amount of these commodities somewhat in excess of the face value of the loan. The same is true with respect to livestock loans. On commodity loans the upper limit may be 50 per cent of the bank's capital and surplus. In the case of livestock the loan may reach 25 per cent of the bank's capital and surplus.

6. Before the Federal Reserve Act no national bank could accept a draft drawn upon itself. This meant that there could be no banker's acceptances bearing the name of a national bank as an acceptor. (It was feared that this practice might lead to an excessive use of bank credit in this form.) As a consequence much of our foreign trade had to be financed through foreign money markets, since there could be no adequate discount market in the United States. To remove this handicap, and because some state banks could accept drafts drawn upon themselves, the Federal Reserve Act permitted national banks to accept such drafts to an amount equal to 50 per cent of their capital and surplus. In 1915 the limit on acceptances financing foreign trade was raised to 100 per cent, provided that the approval of the Federal Reserve Board was secured. Acceptances arising out of purely domestic trade were held at the lower limit.

7. The Federal Reserve Act permitted national banks to conduct savings departments. The McFadden-Pepper Act of 1927 stated that the interest paid on such deposits must not exceed the maximum rate set for state banks in a particular state by state law. The Bank Act of June 16, 1933, gives the Board of Governors the power to establish an upper limit for the interest rate paid by member banks to savings depositors.

8. The McFadden-Pepper Act permitted national banks to issue stock with a lower par value than $100. This act also allowed banks with a capital of $100,000 to be established in the

outlying districts of a city of over 50,000 population, if the states granted to their banking institutions a similar right. The Comptroller of the Currency must, however, give his assent.

Since the Bank Act of June 16, 1933, no *new* national bank can be organized with a capital of less than $100,000, except that in a city of less than 6000 population a bank with a capital of $50,000 may be established. National banks already organized are not affected by this amendment. From now on, then, the smallest capital that will be allowed for a *new* national bank is $50,000. The reason for this change was that it was believed that there had been too many banks of small capital before 1929, mortality having been highest among them.

Before the Emergency Banking Act of March 9, 1933, a national bank could issue only common stock. This act, in an effort to improve the financial condition of the banks, permitted an issuance of preferred stock for sale to the Reconstruction Finance Corporation. The double-liability feature does not apply to this stock.

9. The Bank Act of June 16, 1933, removed the double-liablity requirement from *all new* common stock sold by a national bank. On stock outstanding before that date stockholders are still liable for twice its par value if the bank gets into financial difficulties.

10. The Bank Act of June 16, 1933, forbade national banks in the future to pay interest on demand deposits. The reason for this amendment was that this practice was believed to have been responsible for the placing of deposits in the large city banks by out-of-town banks in excessive amounts, when the out-of-town banks were not certain how otherwise to invest their funds. This led to a flow of these funds into stock-market speculation through the granting of call loans.[1] A number of Secretaries of

[1] On this point Mr. White made the following interesting comment in previous editions of this book: "It is customary for country banks to keep considerable sums on deposit in city banks, for the convenience of making remittances for customers and also for the sake of the interest allowed by the city banks, which is usually at the rate of 2 per cent per annum. It has been a question much disputed in this country whether it is good banking practice to allow interest on such deposits payable on demand. It has been argued,

the Treasury had in years past recommended the abolition of such interest payments.

11. On June 30, 1932, out of six thousand one hundred and fifty national banks over a thousand had no notes outstanding. Not all government bonds bear the circulation privilege. For example, in the early part of 1932 the only bonds which could be used as security for note issues were the 2 per cent consols of 1930 (approximately $600,000,000) and the 2 per cent Panama Canal bonds (approximately $75,000,000). The 2 per cent consols of 1930 were not required to be retired in that year, but could be called at any time after that date, at the pleasure of the government. Since their retirement would have forced the automatic retirement of the national-bank notes, they were not called for redemption. The Panama Canal bonds mature in 1936 and 1938, all but $25,000,000 maturing at the earlier date. Approximately 98 per cent of the consols and Panama Canal bonds were actually pledged to secure circulation. Therefore, even if the banks which had no notes outstanding had wished to issue some, it would have been very difficult for them to obtain the necessary amount of eligible bonds.

As the depression which began in 1929 deepened, there came from many persons a demand for an increase in money in circulation on the ground that this would increase buying power and help to restore prosperity and prices. Prices had sunk to such low levels, and incomes also had dwindled to such a degree, that many

in opposition to it, that it tends to the accumulation in the city banks of large sums which are liable to be called for suddenly whenever anything unusual happens in financial circles elsewhere. Such deposits are said to be in a high degree 'explosive,' tending to cause panics, or to aggravate them when they come. But it is argued, on the other hand, that somebody will always be found to pay interest on deposits. If the banks do not, the trust companies and private bankers, who keep their deposits in the city banks, will do so; and they will draw their own deposits to meet the calls of the country banks as suddenly and as freely as the country banks themselves would. The deposits will then be as 'explosive' in the one case as in the other. Therefore the question to be considered is whether the city banks shall reap the profits which arise from the deposits of the country banks or allow other parties to do so. The same principles apply to the deposits of state banks and trust companies, etc."

debtors were finding it difficult to pay their obligations. Consequently demands for some kind of inflation became persistent. On June 1, 1932, a bill designed to make all government bonds eligible as security for national-bank notes was favorably reported by the Senate Banking and Currency Committee. However, this was believed to be too extensive, and finally it was amended to permit national banks, for a period of three years, to use as collateral any United States government bond bearing interest at the rate of not more than $3\frac{3}{8}$ per cent annually. The notes so issued were taxed as if they had been issued on 2 per cent bonds. This provision, known as the Glass-Borah rider to the Home Loan Bank Act, was enacted into law July 22, 1932. It expired July 22, 1935.

Had it not been that the total of national-bank circulation was still restricted to the capital stock of the banks, an additional amount of $3,000,000,000 could have been placed in circulation. Actually, because of the limitation just mentioned, only another $1,000,000,000 was possible. This additional power of expansion rested, furthermore, chiefly with the larger city banks. In June, 1932, country banks possessed only 30 per cent of the unused issuing power. New York City, Chicago, and the reserve cities accounted for the difference. Banks in New York and Chicago alone could have issued $300,000,000 more had they chosen to do so.

In the middle of 1931 there were $650,000,000 of national-bank notes outstanding. This had risen to slightly over $700,000,000 by the time of the passage of the Glass-Borah rider to the Home Loan Bank Act. Those who expected a great increase in circulation as a result of the act were disappointed, for by January, 1933, the total had risen only to $836,000,000. In late February, 1933, when the total money in circulation had increased to $6,545,000,000 because of the extensive demand for money to hoard, national-bank notes constituted only 13 per cent of the total. At the end of March, 1933, the amount of bank notes in circulation was $922,000,000. The high point was reached in February, 1934, with a total of nearly $940,000,000 outstanding. Thus it can be seen that only about one fourth of the possible expansion was utilized. After February, 1934, there was a gradual decline, until by March, 1935, the total outstanding was $810,000,000. On March 11,

1935, it was announced that all bonds securing national bank notes were to be retired, the consols by July 1, and the Panama Canal bonds by August 1, 1935. Thus the national bank note finally passes out of existence.

12. Under the original Federal Reserve Act national banks could not establish new branches. State banks which converted into national banks could retain their existing branches. In 1914 there were eleven home-city branches of national banks and seven branches outside a home city. In 1920 the Comptroller of the Currency permitted the opening of additional home-city agencies or offices for the receipt of deposits and the cashing of checks. These were known as "tellers' windows" and not as regular branches. By 1926 there were three hundred and seventy-seven home-city offices and branches and only twenty-seven outside a home city.

The McFadden-Pepper Act of 1927 permitted the establishment of *new* branches within the city limits of the head office, provided the state where the national bank was located gave its state banking institutions the same privilege. But no national bank could establish an out-of-town branch. No branch could be opened in a city with less than 25,000 population, only one in a city with between 25,000 and 50,000 population, and two in a city with between 50,000 and 100,000 population. Above this the number rested with the discretion of the Comptroller. State banks could enter the Federal Reserve System and bring in already existing (before 1927) branches. State banks already members were permitted more extensive branch-banking powers than the national banks. The Bank of Italy, the famous California bank, was converted into a national bank in 1927, adding nearly three hundred to the number of branches in the national system.

In order to broaden the branch-banking privileges of the national banks, the Bank Act of June 16, 1933, permitted them under specific capital requirements to establish *state-wide branches* in states that allow their banks to do the same. On December 31, 1933, there were 146 national banks operating 1121 branches. Of these branches 388 were in the county in which a head office was located. Outside of such a county there were 713 branches; of

these 460 were in California, where the greatest development of branch banking has taken place.[1]

13. Other changes made by the Bank Act of June 16, 1933, were the following:

a. Cumulative voting for bank directors is prescribed.

b. A holding-company affiliate must get permission from the Federal Reserve Board before it can vote the bank stock held. The bank may be prohibited from paying any dividends to the holding company if the Federal Reserve Board rules that the holding company has violated the board's rules and regulations.

c. The requirement that there must be at least five directors remains the same, but in the future there can be no more than twenty-five. The requirements regarding the amount of stock a director may hold were changed to accord with the provision permitting stock with less than $100 par value. A director must now own $2500 in stock, but in cities of not over 50,000 population it can be $1500; in cities of less than 25,000 population the amount owned must have a par value of at least $1000.

d. The Federal Reserve Board may order any director or officer to be removed for cause.

e. In the future no officer may borrow from his bank.

f. Security affiliates were required to be divorced from their relationship with a bank within one year.

g. No bank can in the future underwrite an issue of securities. There is to be no buying or selling of securities except on order of the customers. This does not apply to a bank's own investments.

h. A very important stipulation is that the Federal Reserve Board (six members so voting) can fix for each reserve district the percentage of a bank's individual capital and surplus which may be lent on the security of stock and bond collateral. This must not be in excess of 10 per cent of the bank's capital and surplus for any one loan. The Federal Reserve Board is also given other very drastic powers to control speculative loans.

In the middle of 1922 there were 8250 national banks; since then there has been a steady decline due to liquidations, failures, and consolidations, until today only about 5400 remain.

[1] Further discussion of the development of branch banking is postponed to Chapter XXIX.

CHAPTER XXIII

DEFECTS OF THE OLD NATIONAL BANKING SYSTEM AND THE MOVEMENT FOR BANKING REFORM

The Central Banking Controversy in the United States. Prior to 1913 the experience of the United States with central banks was limited to the first and the second Bank of the United States, which existed between 1791 and 1836, except for a five-year period between 1811 and 1816. The first Bank of the United States, as was pointed out in a previous chapter, failed to be rechartered in 1811 for reasons other than its not having been operated efficiently. After 1811 the lack of a central bank was keenly felt, and the second Bank of the United States was therefore chartered for a period of twenty years, in 1816. As was the case with the first Bank of the United States, this second central banking institution met an "untimely death." Its rechartering became a political issue in the campaign of 1832 between the presidential candidates Clay and Jackson. Jackson was not in favor of rechartering the bank, and, as he won at the polls, the second Bank of the United States automatically went out of existence in 1836. Its assets were taken over by a private bank which later failed in the panic of 1837, was reorganized, and then failed again within a few years.

Between 1836 and 1913, therefore, the United States was without a central banking institution. In this regard our position was dissimilar to that of England, whose central bank, the Bank of England, has been in existence since before the beginning of the eighteenth century. France too has had for a number of years its Bank of France, and Germany its Reichsbank. Many other countries also have central banks. Canada was without a central bank until March, 1935, when the new Bank of Canada was opened for business. Why did the United States not follow in the footsteps of England, France, Germany, and many other countries

with regard to a central bank? There are, no doubt, a number of reasons, some of which are peculiar to those periods when agitation for a central banking system has run high. But one of the most important general reasons is that it has been widely believed that a central bank sponsored by the Federal government was not in keeping with the democratic ideals which have been so strong in the United States and have shaped so many of our policies. At the very outset, in 1791, there was the intense conflict between the group led by Hamilton, which hoped for strong centralized control by the Federal government, and the group which later became known as "the believers in states' rights," led by Jefferson. The very mention of the words "central bank" immediately aroused a certain amount of animosity. This feeling, of course, was no stronger in banking than in many other fields.

The duties of central banks are not uniform in all countries, but there are a number of activities which central banks are usually expected to carry on. First, many central banks are known as "bankers' banks," and deal mainly with banks rather than individuals. The Federal Reserve System is outstanding in this regard, and the Bank of England deals principally with banks and other financial institutions. The Bank of France and the Reichsbank, however, deal with individuals as well as banks. In this connection central banks usually keep the reserves of the commercial banks and, in times of stress, stand ready to aid the banks which do deal directly with the public.

Second, the central bank is usually the fiscal agent of the government, serving as a depository of government funds as well as aiding in the collection and disbursement of all government funds.

Third, if the central bank does not have exclusive note-issuing power, it usually directly issues a portion of the country's currency and exercises power which has a salutary influence on other institutions which supply the remaining currency.

Fourth, the central bank usually serves as the guardian of the country's gold reserve. In the United States at the present time the Federal reserve banks hold only gold certificates which represent the gold held by the United States Treasury.

Fifth, most central banks attempt to exert a stabilizing in-

fluence on the money market. Every effort is made to prevent money panics and periods of monetary stress. To equalize interest rates for the various sections of the country and to prevent wide fluctuations in rates throughout the year are likewise central banking functions in some countries.

Sixth, in addition to performing such a minor function as that of serving as a central clearance agency, the central bank is expected to furnish leadership to the financial community. It is expected to be the first to realize that bank expansion has gone far enough, and that remedial measures are in order. Likewise, in periods of extended contraction, the central bank is expected to initiate measures which will ease the situation. This function is frequently referred to as the central bank's control of credit; a subsequent chapter will be devoted to a discussion of credit control by the Federal reserve banks.

Mr. White described the functions and feasibility of a central bank in 1911 as follows (Fifth Edition, pp. 433–436). It must be remembered that note issue was of more importance at that time than it is at present.

The central bank of the Old World type is a bank of banks. Its primary function is to rediscount bills of exchange which have their origin in various parts of the country and which pass through inferior banks whose indorsement they bear. These bills of exchange must be backed by two or more names of undoubted solvency, must run not more than ninety days, and must represent actual business transactions. All bills of this kind will be discounted by the central bank, which will give in exchange cash, or its own notes redeemable in gold on demand. The bank does not incur a deposit liability in the act of discounting bills.

The bank also makes advances, in the discretion of the managers, on goods unsold and on securities, but not as a matter of course, and not to an unlimited amount. Such advances are placed in a different category from that of bills of exchange.

The power of note issue is granted to the central bank in Germany on condition that it shall hold a cash reserve of not less than 33 per cent against the same. All the revenues of the government are deposited in the bank, and its disbursements are made by checks drawn on the bank. The shareholders of the bank are private individuals. In Germany the bank is managed by the government; in France by the government and

the shareholders together, the government being supreme; in England by the shareholders alone.

The issue of the bank's notes, as above described, takes place in obedience to the demands of business and simultaneously therewith. The notes return to the bank in payment of maturing bills, or as deposits at the head bank or its branches. Thus the credit of the country is organized to carry on the business of the country with the minimum of cash. The currency is perfectly elastic. No inferior bank and no individual has any motive to draw on the reserves of the central bank for purposes of internal trade. No drain upon those reserves can take place except when gold is wanted for export. In such cases, if the drain becomes heavy, the bank raises the rate of discount till it ceases.

Drains on the bank reserves in the United States usually run in the contrary direction. They are internal, not external. In the recent panic the depletion of bank reserves was most violent while we were importing gold from abroad. The country banks were draining the city banks. Mr. J. B. Forgan said that during the week before the 28th of October the First National Bank of Chicago alone shipped $7,000,000 out of a legal reserve fund of $15,000,000 "for the purpose of taking care of country banks who feared that there was going to be a panic and made a drive at the nearest reserve city they had." This was before private depositors had made any run on the banks at all. Twelve thousand small banks were drawing simultaneously from the large banks of the reserve cities, reducing the big piles of cash that the public were accustomed to see reported in the newspapers, and accumulating twelve thousand small piles that the public never saw or heard of. No wonder if the private depositors took the alarm also.

A central bank of issue exists primarily in order to keep the internal industry and barter of the country going on with the least possible friction, by supplying just the amount of currency needed at all times and keeping it at par with gold. It is no part of its aim to supply capital to stockbrokers or speculators, but it may properly use for that purpose any surplus which it has on hand, in order to avoid a loss of interest for the time being. Neither a central bank of issue nor any number of banks can put out or keep out more notes than the country needs for hand-to-hand circulation. Any surplus will come back promptly and inevitably for redemption. Therefore no bank and no number of banks can, during a period of general inflation, supply the demands of speculators by fresh issues of bank notes, whether the notes are secured or unsecured. Nothing but bank reserves of actual cash will answer that purpose.

It may be asked how we shall be secured against favoritism in the matter of discounts. Will not the central bank extend its favors to some customers and withhold them from others? The central bank, of the Old World type, discounts all the paper offered to it that measures up to its standard of goodness. Why should it refuse any? If its legal limit of note issue has been reached, it is only necessary to buy thirty-three dollars of gold for each one hundred dollars of new bills discounted. Then it receives interest on the whole one hundred and pays interest only on the thirty-three. There is no motive for favoritism and discrimination between persons and localities offering the same kind of bills. The only discrimination possible is between good paper and bad, between that which arises from mercantile transactions and that which results from kiteflying. The danger is not that the central bank would discriminate by extending its favors to some banks and not to others, but that there would not be a sufficient amount of bills of the type demanded to employ the resources of a central bank of $50,000,000 capital.

Apparent obstacles to the adoption of the central bank system in this country are twofold: first, the wide extent of the territory to be served; second, the habits of our people, who are accustomed to a system based upon individualism. Are these difficulties insuperable? The Second Bank of the United States and President Jackson's war against it will doubtless occur to readers as a warning against fresh experiments of that kind. But President Jackson had no objection to a bank controlled by the government. In fact he recommended one to Congress at the time when he was fighting against "Biddle's bank." Our habit of falling prostrate once in every ten years, and exposing ourselves to the jeers of mankind, is the worst banking habit we have, and the one which we could most advantageously lay aside.

Although it has been stated that there was no central bank in this country between the years 1836 and 1913, several of the functions mentioned above were carried on by the national banking system and the Federal Treasury. Others of the functions were simply left unperformed. The national banking system was established in 1863. The serious defects of this system were not evident until it had operated for a number of years. These defects were probably brought home most forcefully to the people during the panic of 1907.

Mr. Paul M. Warburg, who was vitally interested in banking reform at this time, relates the following conversation between

himself and Mr. James A. Stillman, president of the National City Bank of New York. Mr. Warburg, in 1903, prepared a memorandum outlining what to him were the cardinal defects of the existing system. He showed the memorandum to Mr. Stillman, who said,

"Warburg, don't you think the City Bank has done pretty well?"

I replied, "Yes, Mr. Stillman, extraordinarily well."

He then said, "Why not leave things alone?"

It was not without hesitation that I replied, "Your bank is so big and so powerful, Mr. Stillman, that, when the next panic comes, you will wish your responsibilities were smaller."

At this, Mr. Stillman told me that I was entirely wrong, that I had the mistaken notion that Europe's banking methods were the most advanced, while, as a matter of fact, American methods represented an improvement upon, and an evolution of, the European system, America having already discarded its central bank. He had no doubt that progress would have to be sought, not by copying European methods, but by elaborating our own.

Four years later, in the midst of the panic, I found Mr. Stillman once more standing over my desk; and when I looked up, he asked, "Warburg, where is your paper?"

I said to him, "Too late now, Mr. Stillman. What has to be done cannot be done in a hurry. If reform is to be secured, it will take years of educational work to bring it about."

This incident is related for the sole purpose of showing the status of banking and business opinion in those far-off days. What Mr. Stillman had said was typical of the general attitude then prevailing.[1]

A discussion of the defects of the national banking system will aid in understanding many of the provisions which were later put into the Federal Reserve Act. In fact, it may be said that the Federal Reserve System was set up in order to eliminate the defects of the national banking system.

Defects of the National Banking System. The defects attributed to the national banking system were many, but only the most important ones will be discussed here.

Pyramiding of Reserves. Although the terminology used in the

[1] Paul M. Warburg, *The Federal Reserve System*, Vol. I, pp. 18–19. The Macmillan Company.

statement of this defect varies, most people have in mind the same underlying characteristics. Under the national banking system legal reserves were set up under a threefold classification: central reserve city banks, reserve city banks, and country banks. Central reserve city banks included all banks located in New York City, Chicago, and St. Louis. They were required to keep a 25 per cent reserve against deposits, all of which had to be in the form of cash in their own vaults. Reserve city banks, located in cities other than New York City, Chicago, and St. Louis, with a population of more than 100,000,[1] were required to keep a legal reserve of 25 per cent, half of which had to be kept in their own vaults in the form of cash; the other half might be redeposited in a central reserve city bank. Country banks were required to keep a 15 per cent reserve, three fifths of which might be redeposited in either a reserve city or a central reserve city bank; the remaining two fifths had to be kept in cash in their own vaults.

Pyramiding resulted from this ability of a bank to redeposit part of its legal reserve. Since the redepository did not keep a 100 per cent reserve against the redeposited reserve of its correspondent bank, there was less actual cash reserve behind deposits than the percentages 25, 25, and 15 would indicate. This can best be shown by an illustration. Suppose that a country bank had deposits of $10,000. It must keep a total reserve of $1500, $900 of which could be redeposited in, say, a reserve city bank. The reserve city bank could in turn redeposit part of its legal reserve in a central reserve city bank. In tabular form the results would be as given on page 513.

As a result, then, against $10,000 of deposits in a country bank, actual cash of only $740.60 was being held. This represents only about a 7½ per cent cash reserve. The percentage is even less if figured on the basis of the total deposits which result from this method of carrying legal reserves, $740.60 against $11,012.50 of deposits.

Just because this allowed a cash coverage of some 7 per cent instead of 15 per cent, it does not follow that the practice of re-

[1] This classification was set up by the Comptroller of the Currency. The population figure was used as a rough guide; it was not strictly adhered to.

Bank	Deposit	Total Reserve	Cash	Might Redeposit
Country	$10,000.00	$1500.00	$600.00	$900.00 (with reserve city or central reserve city bank)
Reserve city . . .	900.00	225.00	112.50	112.50 (with central reserve city bank)
Central reserve city	112.50	28.10	28.10	——
	$11,012.50	$1753.10	$740.60	$1012.50

depositing part of the legal reserve was detrimental to the banking system. It was detrimental, but for this reason, that, during periods of stress, banks possessing deposits in other banks which they were counting as part of their legal reserves, would call for these reserves, but, since the redepository banks did not carry a 100 per cent cash reserve against these redeposited reserves, it was embarrassing for them to experience this drain at a time when they likewise were in need of all their cash reserves. Specifically, in our case, if general pressure were placed upon the country bank, it would ask for its $900 deposit in the reserve city bank in cash. But the reserve city bank was keeping as a minimum only $112.50 against this deposit. The reserve city bank might likewise ask for cash for its $112.50 deposit in the central reserve city bank, but here, again, the central reserve city bank was holding only a portion of this amount in cash, $28.10. During stress periods, therefore, it was a distinct disadvantage for a bank to act as a redepository for another, because in addition to the pressure put upon it by its own public depositors it had to meet the demands from banks carrying legal reserves with it. It is reasonable to ask why the banks which were keeping the reserves of other banks did not keep a 100 per cent cash coverage. The answer is that this would have been an expensive procedure; since the making of a profit was the primary reason for their existence, they usually expanded their loans as far as possible. As a partial safeguard, so far as the individual redepository bank was concerned, it would frequently lend large amounts to security brokers but subject to

call. But for the entire banking system the calling of security-market loans would not alleviate the situation. It would, however, cause money rates to soar, since the security brokers would experience difficulty in obtaining funds. The importance of this defect will be discussed again when the effect of the panic of 1907 is considered.

Inelastic Note Issue. The principal currency before the establishment of the Federal Reserve System was national-bank notes, greenbacks, gold certificates, and silver certificates. Silver certificates were issued only on the basis of silver purchases, which were discontinued after 1894. Gold certificates likewise were issued only on the basis of 100 per cent coverage. Greenbacks could not be issued beyond the limit specified by law. National-bank notes were issued by any national bank on the basis of approximately 100 per cent government-bond coverage. During various seasons of the year, such as the crop-moving period in the fall, when the demand for cash in circulation increased, it was difficult for our banks to take care of these added demands. If a national bank had to spend ten dollars in order to purchase a government bond on the basis of which it might issue a national-bank note, it was no better off, except perhaps for the fact that it received interest on the government bond, than if it had never issued the bank note. There was no elasticity, therefore, in any of the elements of our currency system.

This system of national-bank-note issue has been referred to as the "double interest" principle, which means that if a national bank held $1000 in cash (other than national-bank notes), it might lend this for, say, 6 per cent. However, if it purchased a government bond for $1000 and on the basis of that issued $1000 worth of national-bank notes, it could lend the $1000 in national-bank notes for 6 per cent and in addition receive the interest on the government bond, which was securing the notes. One difficulty encountered in this procedure was that the law stated that the notes could not be issued for an amount in excess of the par value or the market value of the bond, whichever was the lower. This meant that if a national bank paid $1020 for a government bond, it could issue only $1000 worth of national-bank notes;

and if later the market price of the bond fell to, say, 95, the bank could issue only $950 worth of national-bank notes. In addition to this the bank was forced to keep a 5 per cent gold (later changed to lawful money) redemption fund with the United States Treasury, upon which it received no interest.

Our currency system clearly did not provide for sufficient "stretch," which was necessary during the crop-moving season and various holiday periods. If the system was not sufficiently elastic to take care of seasonal needs, it certainly was not able to prevent money panics.

Clumsy and Wasteful Check Clearance. Before the establishment of the Federal Reserve System local clearinghouses served as agencies for clearing all local checks. There was, however, no central agency for the clearance of out-of-town checks. The principal means used to collect out-of-town checks was an arrangement with correspondent banks. The smaller banks usually kept balances in the larger cities, such as New York or Chicago. If they received a check drawn on a bank in one of these centers, they would send it to their correspondent in that center and ask the correspondent to collect it for them. The banks, of course, did not have correspondents in all cities; so the collection routes were sometimes very roundabout. One of the stock examples which have been used in describing this situation is that of a check drawn on a bank in Sag Harbor, Long Island, New York, and deposited in a bank in Hoboken, New Jersey, ninety-three miles away.[1] This check traveled some 1223 miles during a period of ten days, and passed through ten banks before it was presented at the bank upon which it was drawn. The check's journey was as follows:

To New York City . .	3 miles	*To* Far Rockaway . . .	45 miles
To Boston	200 miles	*To* New York City . . .	20 miles
To Tonawanda	405 miles	*To* Riverhead	75 miles
To Albany	210 miles	*To* Long Island City . .	70 miles
To Port Jefferson . . .	105 miles	*To* Sag Harbor	90 miles

This, no doubt, is an extreme case, but it illustrates the point. Part of the circuitous routing of checks was a result of "dodging"

[1] J. C. Hallock, Jr., *Clearing Out-of-Town Checks*, pp. 19–22.

exchange charges. It was known what banks made exchange charges, and an attempt was made to keep a check away from those banks. This probably explains why the check of the example above went to New York City twice.

The amount of money which was tied up in the collection of checks is usually referred to as the "float." Under this system the process of clearing checks by means of correspondent banks was very expensive because of the time involved. There were, of course, other charges, — for example, postage and clerical charges, — but the loss of the use of the money was the most important single expense. This "float," however, could be counted as part of the collecting bank's legal reserve.

No Satisfactory Fiscal Agent for the Government. During the panic of 1837 the government suffered large losses because it was carrying its deposits in state banks, many of which failed. In order to prevent a recurrence of such losses what was known as the Independent Treasury System was set up in 1846. This system was merely a network of vaults throughout the country in which the government kept a portion of its funds. This was inconvenient in many cases, and it likewise meant that the government could receive no interest on its idle funds. Banks throughout the country were also deprived of the use of whatever amount of cash was kept in these vaults; and during periods when government receipts were heavy, the money market was adversely affected. The national banks aided in collecting and disbursing funds and served as government depositories, but there was still a need for a more centralized agency to aid the government in all its fiscal activities.

Lack of Leadership. The national banking system was established on the basis of individual units. There was a Federal agency, under the directorship of the Comptroller of the Currency, which supervised their activities, but each bank acted independently of another. Consequently there were periods when leadership was sorely needed. Banking, as has been explained, perhaps more than any other business depends on unified action. If one bank tends to expand more than others, it always experiences disastrous results. Unified action, therefore, is eminently desirable, and such action cannot be obtained unless there is

leadership. Spontaneous leadership cannot be relied upon. Any organization made up of thousands of individual units, be it banking or any other type of business, finds large members unwieldy.

Other Defects. In addition to the foregoing defects of the old national banking system, the National Monetary Commission in its report in 1910 listed the following:

No Protection of National Gold Reserves

We have no instrumentality that can deal effectively with the broad questions which, from an international standpoint, affect the credit and status of the United States as one of the great financial powers of the world. In times of threatened trouble or of actual panic these questions, which involve the course of foreign exchange and the international movements of gold, are even more important to us from a national than from an international standpoint.

No Standardized Commercial Paper

The lack of commercial paper of an established standard, issued for agricultural, industrial, and commercial purposes, available for investments by banks, leads to an unhealthy congestion of loanable funds in great centers and hinders the development of the productive forces of the country.

No Open Discount Market

The narrow character of our discount market, with its limited range of safe and profitable investments for banks, results in sending the surplus money of all sections, in excess of reserves and local demands, to New York, where it is usually loaned out on call on stock-exchange securities, tending to promote dangerous speculation and inevitably leading to injurious disturbances in reserves. This concentration of surplus money and available funds in New York imposes upon the managers of the banks of that city the vast responsibilities which are inherent in the control of a large proportion of the banking resources of the country.

Disparity in Discount Rates

There is a marked lack of equality in credit facilities between different sections of the country, reflected in less favored communities, in retarded development, and great disparity in rates of discount.

No Control of Discount Rates

Our system lacks an agency whose influence can be made effective in securing greater uniformity, steadiness, and reasonableness of rates of discount in all parts of the country.

No Facilities to Meet Emergencies

We have no effective agency that can surely provide adequate banking facilities for different regions promptly and on reasonable terms to meet the ordinary or unusual demands for credit or currency necessary for moving crops or for other legitimate purposes.

No Uniform Standards for Banks

We have no power to enforce the adoption of uniform standards with regard to capital, reserves, examinations, and the character and publicity of reports of all banks in the different sections of the country.

No Foreign Agencies

We have no American banking institutions in foreign countries. The organization of such banks is necessary for the development of our foreign trade.

Narrow Restriction of Real Estate Loans

The provision that national banks shall not make loans upon real estate restricts their power to serve farmers and other borrowers in rural communities.

Such a formidable list of defects of the system under which we operated between the years 1863 and 1913 reveals it as woefully weak. But a general conclusion of this kind is perhaps not accurate. The national banking system was certainly better than no system at all, such as we had between the years 1836 and 1863, which have sometimes been referred to as the "dark ages" of American banking. It should be kept in mind also that only the defects have been stated, and none of the good points.

To complete the background which antedated the passage of the Federal Reserve Act in 1913 a brief discussion of the events which led up to its passage will further aid in understanding many of the provisions of our Federal Reserve System.

Immediate Events Leading up to the Passage of the Federal Reserve Act. It is not possible to select an exact date as the time when the banking-reform movement for revising the national

banking system started. Probably the depression of 1893 was an important factor, for soon thereafter several reform proposals were set forth. The first of these was the Baltimore Plan of 1894, which embodied the proposals of the American Bankers' Association. Then there was the plan of the Indianapolis Monetary Commission of 1897, which embodied the reform proposals of a number of groups of businessmen. These earlier plans dealt almost entirely with conditions of note issue, for at that time the inelasticity of note issues was believed to be the most important shortcoming of our banking system.

The panic of 1907, however, brought the agitation for banking reform to a climax. During this panic, which has frequently been referred to as a money panic, two of the defects of the national banking system previously referred to operated in such a way as to make them causes contributing to the severity of the panic. The defect resulting from the pyramiding of reserves was especially important in the larger centers. New York City experienced the failure of one of its largest banks, the Knickerbocker Trust Company, and many of the New York City banks were deficient in reserves. They could have been closed by the examiners because of their deficiencies, but that would have only aggravated the situation. It has been said that, although the New York City banks were expected to keep reserves of 25 per cent, this fell on the average to about 18 per cent. New York City banks called their loans from brokers, and it was extremely difficult for brokers to obtain funds to carry on their business. At one time call-money rates on the New York Stock Exchange went to 125 per cent. This, again, showed the need for a more elastic currency.

Because there was no elastic currency, clearinghouse loan certificates were resorted to in crisis periods. The New York Clearing House issued them in 1860, 1861, 1863, 1864, 1873, 1884, 1890, 1893, 1907, and 1914. These interest-bearing certificates were issued by members of the clearinghouse and used in the place of cash to pay adverse balances at the clearinghouse. This prevented embarrassment to the bank having an unfavorable balance, since what little cash it did possess was conserved, and thus it was tided over the crisis period.

As a result of this panic Congress passed the Aldrich-Vreeland Act, which provided for an emergency currency and the appointment of the National Monetary Commission to study banking reform. The Aldrich-Vreeland notes were to be issued only until such time as a permanent provision was made for a more elastic currency. These notes were issued by groups of national banks known as national currency associations. The members of each association, at least ten in number, had to have unimpaired capital and a 20 per cent surplus aggregating $5,000,000. The security behind these notes consisted of bonds held by the banks and two-name commercial paper having a maximum maturity of four months. They were issued in restricted amounts and taxed at the rate of 5 per cent for the first month of their issue; an additional tax of 1 per cent per year was added each month thereafter until a 10 per cent yearly tax had been reached. This tax, which was reduced in 1913, was to force their retirement as soon as the emergency had passed.[1]

The chairman of the National Monetary Commission was Senator Aldrich, who exerted a powerful influence in the Republican party. This commission published its report in 1912, and

[1] More specifically national-bank notes in addition to those already in existence might be issued under the following terms:

1. By pledging any securities, including commercial paper, representing actual commercial transactions, bearing two or more responsible signatures, and running not more than four months. Such securities and paper to remain in the custody of the national currency association to which the bank applying for the circulating notes belonged. The amount of notes issuable thereon not to exceed 75 per cent of the cash value thereof. All the banks in the currency association to be jointly and severally liable for all the circulating notes so issued.

2. By transferring to the custody of the Treasurer of the United States any bonds or other interest-bearing obligations of any state of the United States, or any legally authorized bonds of any city, town, county, municipality, or district in the United States. Against such securities circulating notes to be issued not exceeding 90 per cent of their market value.

The Aldrich-Vreeland Act was continued in force until June 30, 1915, by the Federal Reserve Act. When the World War broke out in 1914, there was a crisis and a large export of gold from the United States. There occurred a sudden demand for these notes, and $385,000,000 of them were issued before the end of December, 1914. They were retired by the middle of 1915.

recommended a central banking agency which is sometimes referred to as the Aldrich Plan, and sometimes as the National Reserve Association, which was the name given to the proposed central bank. The expert for the House Banking Committee has summarized the proposal as follows:

> The Aldrich bill provided for a single central "reserve association" with scanty public oversight, with control vested practically wholly in the banks, and with the preponderance of power in the hands of the larger institutions which owned stock. It so arranged things as to keep this "reserve association" relatively inactive except upon special occasions of panic or disturbance. It made no direct provision for the shifting of reserves in part from existing banks to the proposed associations, but it relied upon inflation due to the placing of bank notes, issued by the central association, in the reserves of the stockholding banks for protection in time of danger.[1]

All national banks were to be eligible for membership and likewise state banks and trust companies which conformed to the requirements of this bill. In the case of both types of banks, however, membership was to be optional. The subscribing banks were to be grouped in local associations, and these associations were, in turn, to be organized into fifteen district associations. Each district was to have a branch office of the National Reserve Association, but these offices were to be strictly branches and not separate corporate entities. The National Reserve Association might assist the member institutions by (1) rediscounting commercial paper made at least thirty days previous to the day of rediscount and having not more than twenty-eight days to run, (2) the purchase of bank acceptances of less than ninety days' maturity, (3) rediscounting commercial paper of from twenty-eight to ninety days' maturity upon the endorsement of the local association, and (4) discounting, upon the approval of the Secretary of the Treasury, the governor, and the executive committee of the National Reserve Association, the direct obligation of a depositing member bank, when secured by satisfactory collateral and endorsed by the local association.

[1] H. P. Willis, *The Federal Reserve System*, p. 68. The Ronald Press.

The board of directors of the National Reserve Association was to consist of forty-six members, but there was to be an executive committee of nine, which was given broad powers and probably would have dominated the board. Thirty of these directors were to be elected by the banks and nine by the branches, and there were to be seven ex-officio members.

Mr. White fully described the organization and functions of the proposed central bank as follows, while it was still being debated in Congress in 1911 (Fifth Edition, pp. 437–441):

The essential feature of it [the Aldrich Plan] was the establishment of a banking institution, which should be the fiscal agent of the government, with a capital not exceeding $300,000,000. It was to be called "The Reserve Association of America." Its stock might be subscribed for and owned solely by the national banks of the United States, in exact proportion to their capital, and was not to be transferable. The principal office of the association was to be at Washington City. The earnings were to be paid to the stockholders at first, to the extent of 4 per cent, and subsequently to the extent of 5 per cent, on the paid-in capital, all other earnings to go to the government. No bank was to be compelled to join the association.

All subscribing banks were required to group themselves in local associations, each association to have not less than ten banks with an aggregate capital of not less than $5,000,000. All the local associations were to group themselves into fifteen divisions called districts. Each local association was to elect annually a board of directors, three-fifths of which were to be elected by each bank having one representative and one vote, without reference to the size of the bank.

There should be a branch of the Reserve Association in each of the fifteen districts, and this branch should be governed by a board of directors chosen by the local associations composing the district. Additional directors equal to one-third the number of the local associations should be appointed to represent the business interests of the locality, other than the banking interests.

The Reserve Association should be controlled by a board of forty-six directors: seven consisting of the governor, two deputy governors, the Secretaries of the Treasury, Agriculture, and Commerce and Labor, and the Comptroller of the Currency; the remainder to be chosen by the branches and the local associations; the governor and two deputy

governors to be selected by the President of the United States from a list submitted by the board of directors; each branch to have a manager and a deputy manager appointed by the governor with the approval of an executive committee of the central board of directors.

The government of the United States and those national banks owning stock in the Reserve Association should be the sole depositors in said association, and the business of said association should be confined to the government and the subscribing banks. The Reserve Association might rediscount any commercial paper bearing the indorsement of any bank having a deposit with it, provided said paper was made thirty days prior to the date of rediscount and had not more than twenty-eight days still to run. It might also rediscount for any depositing bank any paper arising out of commercial transactions running not more than four months, but such paper must be guaranteed by the local association of which the bank asking rediscount was a member. Any member of a local association might apply to that association for a guaranty of the commercial paper which it desired to rediscount. The total amount of guaranties by a local association should not exceed the aggregate capital and surplus of the banks forming the local association.

The Reserve Association might also, in certain cases, discount the direct obligation of a depositing bank when accompanied by satisfactory securities, the loan not to exceed two-thirds of the actual value of the pledged securities. The Reserve Association could pay no interest on deposits. The rate of discount of the Reserve Association was uniform throughout the United States. The Reserve Association might buy from, or sell to, its depositors foreign bills of exchange arising from commercial transactions, running not more than ninety days and bearing the signatures of at least three responsible parties. It might have agencies in foreign countries. All government funds were to be deposited with the Reserve Association, government disbursements to be made by drafts or checks drawn on it.

National banks might maintain their existing issues of circulating notes, but there should be no further issues beyond those then outstanding. No notes voluntarily retired were to be reissued. The Reserve Association, for a period of one year, was to offer to purchase at not less than par the 2 per cent bonds held by national banks as security for their circulation, with the currency privilege attached to said bonds, and was to assume all responsibility for said notes, it being the policy of the United States to retire such bond-secured circulation and to substitute therefore notes of the Reserve Association subject to certain rates

of taxation. All note issues of the Reserve Association were to be covered to the extent of one-third by gold or other lawful money, and the remaining two-thirds by United States bonds or bankable commercial paper of the specified kind. The circulating notes were to constitute a first lien upon all the assets of the Reserve Association.

The institution here outlined is fitted to perform the essential functions of a central bank, although it bears a different title. Probably Reserve Association is the better name, since it indicates the principal object aimed at, and since it avoids certain popular prejudices which attach to the other name. Its first endeavor is to strengthen the whole body of banking by economizing the cash reserves of the country and making them available for the protection of banks and business men at all times, and especially in squally times. Once put in operation, there would be no motive for banks to make runs on each other, or for depositors to make runs on the banks.

The system would not prevent trade reactions. It would not prevent the bursting of bubbles of speculation when overblown, but would probably have a steadying influence by standardizing the commercial paper admitted to discount, by inducing mutual supervision of the banks in the local associations, and by creating a higher sense of responsibility on the part of bankers generally. It would thus curtail the fires of speculation and tend to keep them within limits, instead of allowing them to spread through the community at every considerable crisis. Since the ultimate banking reserve would be in the control of an institution too strong to fail, and since there can be no limit to the amount of currency issued except the power to redeem it on demand, and no delay in issuing it, there could be no paroxysm of credit, in which solvent and insolvent debtors might be involved in a common ruin.

The Aldrich plan was workable. Objections were made to it that such a colossal institution might become a tool of politicians, or that it might fall under the domination of a few individuals in Wall Street. The answer is that it would be controlled by the participating banks of the whole country, and that they could not part with their shares, even if they should desire to do so. The objection on the score of politics lies equally against our form of government, and against all forms of government. If we can safely intrust our other national interests to a President elected every four years, we can surely trust him to select a governor and two deputy governors of the Reserve Association from a list of names submitted to him by the directors thereof. This power of appointment has been exercised by the chief of the state in France more

than one hundred years under all governments — monarchial, republican, and revolutionary — without harmful consequences. Objections based upon the Bank war in President Jackson's time are groundless, by reason of the dissimilarity of the institutions concerned and of the attendant circumstances. A war between the President of the United States and a fiscal agency, or exchange office, owned by thousands of banks in all parts of the country, is unimaginable. By way of keeping the Reserve Association free from political entanglement it was provided that no member of any national or State legislative body should be a director of it, or of any of the branches, or of any local association.

By the time Congress was ready to vote upon this measure, the Republicans had lost control of the House and the Senate, and a presidential election was at hand. In the presidential election of the fall of 1912 Woodrow Wilson was elected because of the Taft-Roosevelt split in the Republican party. It was to be expected that the new banking and currency committees, controlled by the Democrats, as well as the new chief executive, would reject the proposals as put forth by the National Monetary Commission, which the Republicans had dominated. This proved to be the case. After the opening of the first session of Congress in the first term of Wilson's administration, the Federal Reserve Act was passed, December 23, 1913. It was to be expected that one political party would not adopt another political party's suggestions, merely because it wished to be original, but there were also some personal reasons for changes in the act. William Jennings Bryan was President Wilson's first Secretary of State. He had always been a "champion of the common people," a great believer in democratic ideals, and in general a follower of the Jeffersonian principles of democracy. A central banking system with a single head office in Washington would be vulnerable to the criticism of being controlled by special interests, dominated by "Wall Street" and the "money trust." The Democrats wished to make sure that the system promulgated by them would not be open to such an attack. As a consequence they devised the regional system. Dr. H. Parker Willis relates that when he and Mr. Glass, then chairman of the House Banking and Finance Committee, conferred with the President-elect at Princeton in December, 1912, no

definite number of districts had been decided upon, but it was believed at that time that there might be as many as fifty, one for each existing reserve city.

The first complete draft of the bill, which was drawn after a second conference with President Wilson in February, 1913, provided for not less than fifteen districts. Mr. Paul M. Warburg was very much against a large number of districts on the basis that, contrary to current thought, the more districts created, the more powerful would be the influence of New York. He later wrote:

> To all careful students it should have been clear that the larger the number of reserve banks, the greater would be the preponderance of New York, rather than the reverse. Even if the territory of the New York Bank were cut down to the utmost, it would continue to overshadow the other districts, unless they should embrace very large geographic areas. With a large number of reserve banks, little or no personal and financial leadership could be expected from the smaller districts and, in the end, the Federal Reserve Bank of New York would become the pivot of the whole System. Such an outcome, while perhaps natural and from the point of view of efficiency not undesirable, might ultimately make the Reserve System an easy target for political attacks. The champions of a large number of reserve banks, nevertheless, continued to assume that the creation of large districts, few in number, would mean the sacrifice of local self-government. They failed to realize that, by a liberal and systematic development of branches, an intensive decentralization of credit might be accomplished and real local self-government brought about.[1]

After the Federal Reserve System had been operating some sixteen years, Mr. Warburg said, "The concentration of the country's money on the New York Stock Exchange is more pronounced to-day than ever before."[2]

Bankers in general were hostile to the new form of a central banking system as outlined in the Federal Reserve Act. The Currency Committee of the American Bankers' Association attacked it as follows:

[1] Paul M. Warburg, *The Federal Reserve System*, Vol. I, p. 122.
[2] Ibid. p. 457.

There are a great many different kinds of socialism: but however the various theories differentiate, they all agree upon the fundamental proposition that the government, that is the community as a whole, should own all the real estate, all manufacturing enterprises, all banks, all transportation companies — in short, all money-making utilities. This proposition of the Government to take the bank's capital in the manner provided, carried to the extreme, would easily accomplish, so far as the national banks are concerned, this contention of the socialists. For those who do not believe in socialism it is very hard to accept and ratify this proposed action on the part of the Government.[1]

Some economists likewise joined the dissenters. Professor E. R. A. Seligman at a meeting of the Academy of Political Science in New York, October 15, 1913, said:

Passing over a number of minor points which this would not be the place to discuss, because of lack of time, I shall simply call attention to the fundamental fact that the proposition of twelve regional reserve banks flies in the face of all sound theory. I venture to assert without fear of contradiction that if the economists and the thinkers of this country were called together in conclave to-day, there would scarcely be a dissenting voice on this point, and there would certainly be an overwhelming majority to the effect that this proposition — the most fundamental proposition, in most respects, of the bill — is incorrect, and if persisted in will make the whole measure either a failure, or, at all events, very largely impotent to bring about the result which we all desire.[2]

Mr. White had similar apprehensions. While the Federal Reserve Act was being debated in Congress, he wrote in his Fourth Edition, pp. 484–486:

The new banks are to be controlled by a board of seven persons at Washington city, only one of whom need be a banker or acquainted with banking science, and none of the appointees are to be selected by the bankers whose property they control. In other words, the control of bank property is separated from the ownership, contrary to all Anglo-Saxon

[1] "Proceedings of the American Bankers' Association," 1913, in the *Commercial and Financial Chronicle* Supplement, October 18, 1913, p. 127.

[2] Proceedings of the Academy of Political Science in New York, October, 1913, p. 135.

precedent and customs. This is the system of the Imperial Bank of Germany with the difference that the latter is less liable to change of personnel of the bank directorate. That membership of the Federal Reserve Board would eventually become a part of the spoils of politics, however free from that taint it might be in the beginning, all our experience shows.

In regard to other features of the proposed system he wrote:

That the framers of this bill had for their chief purpose the conservation and economical use of bank reserves is evident from the name which they have given to their measure. They have aimed to prevent the depletion of cash reserves in times of panic; that is, runs on banks by depositors and by some banks on others, leading to bank suspension, more or less complete. To this end they have provided twelve reservoirs for the collection of bank reserves, which is certainly better than twelve thousand. After the system goes in force there will be one reserve bank in each district to which the lesser banks of the district can look for help in an emergency. There is no certainty that the twelve will not make runs on each other.

. . . It is a grave objection to this bill that it makes a new issue of United States notes. Instead of retiring those already existing, and taking the government out of the banking business altogether, it proposes to issue federal reserve treasury notes to the possible limit of $500,000,000 against commercial paper secured in certain ways. Most people will look upon these notes as a new issue of greenbacks, and we shall presently have a demand for more notes to be issued directly to the holders of cotton, breadstuffs, and other property in warehouses, as was demanded by the Populists twenty years ago. Such demands have already been made by influential members of Congress.

. . . The question, therefore, is whether the existing bank is likely to acquiesce in a further mastery over its entire resources, which its acquiescence now would imply. The banker will not be alone in deciding this question. Will depositors have confidence in the new style of banking here proposed? If not, they will silently draw out their money from the new-style banks and deposit it elsewhere.

There is serious danger that the passage of this bill may put an end to the national banking system, without giving birth to any other system.[1]

[1] All references on the Federal Reserve System are given at the end of Chapter XXVI.

CHAPTER XXIV

THE ORGANIZATION OF THE FEDERAL RESERVE SYSTEM

There have been a number of important changes and amendments in the Federal Reserve Act since it was passed in 1913. It does not seem necessary to outline all these changes; so throughout this chapter the most recent (1935) legislation will be considered unless otherwise indicated. For example, the reserve requirements for Federal reserve notes as originally outlined in the act have been changed several times. In order to understand why the present reserve requirements for these notes are as they are, it will be necessary to discuss the difficulties which arose in existing requirements and the solution of these difficulties by subsequent changes. The most important consideration, however, will be the present reserve requirements for the issuance of Federal reserve notes.

Regional System. Once the regional system had been decided upon, the Federal Reserve Act [1] provided for an organization

[1] Sometimes referred to as the Owen-Glass Bill, named after Senator Robert Owen of Oklahoma, who was chairman of the Senate Banking and Finance Committee, and Representative Carter Glass of Virginia, chairman of the House Banking and Finance Committee. Mr. Glass was later elected to the Senate, where he continued to show a keen interest in all legislation relating to the Federal Reserve System. He was probably the best-informed congressman on Federal reserve banking matters. With the return of the Democrats to power in 1933 it was thought that Mr. Glass would be offered a more responsible position, perhaps a cabinet position as Secretary of the Treasury, but his ideas were not entirely in accord with those of the administration. His influence on New Deal banking legislation was therefore considerably diminished, and he was at times most severe in his attacks upon proposed banking legislation. He bitterly fought the creation of the Federal Deposit Insurance Corporation.

One of the most interesting Federal reserve studies deals with the conflict of personalities among those connected with the system. The men who are

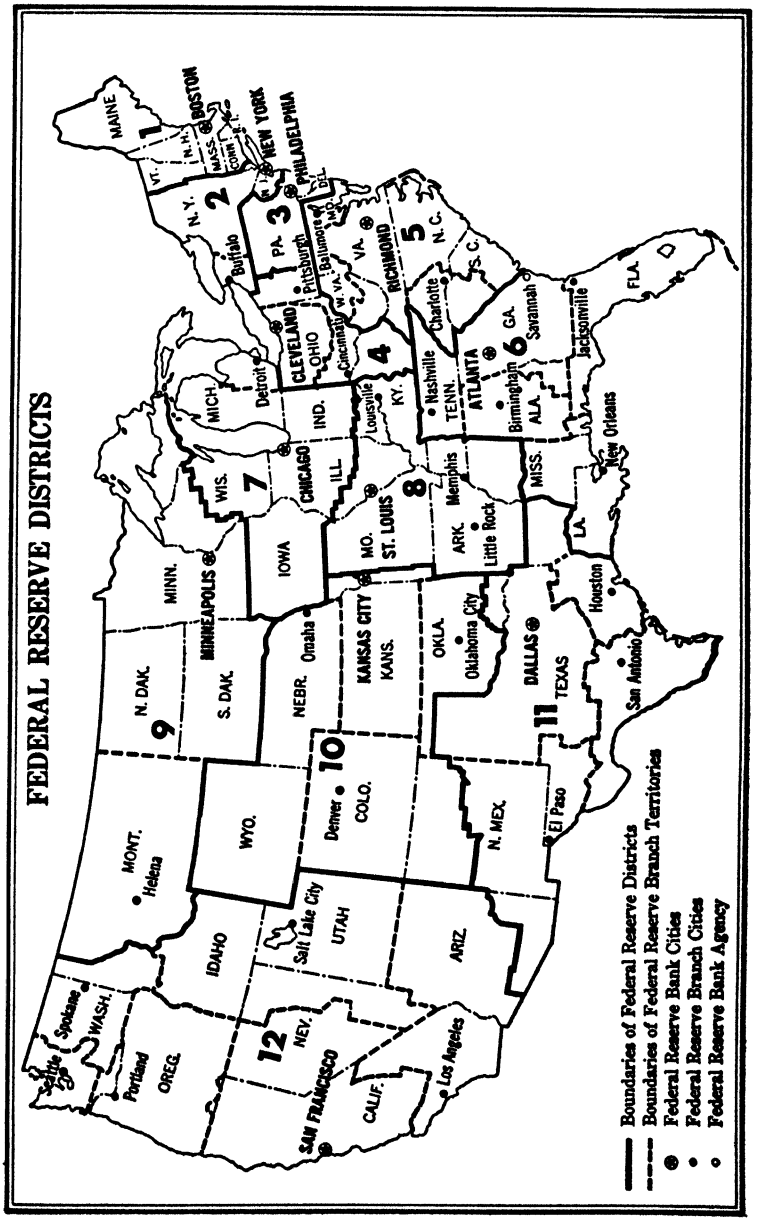
committee to set it up. This organization committee consisted of the Secretary of the Treasury, the Secretary of Agriculture, and the Comptroller of the Currency and was to apportion the districts "with due regard to the convenience and customary course of business."

The act stated that there must be at least eight districts, but not more than twelve. The organization committee decided upon twelve (see the map on page 531). The considerations which helped to determine the districting of the country by the organization committee were these:

1. Mercantile, industrial, and financial connections existing in each district.
2. Ability of the reserve bank in each district to meet legitimate demands upon it.
3. Fair division of capital among the districts.
4. General geographic and transportation situation of the districts.
5. Population, area, and prevalent business activities of the district.
6. Ability of the member banks of each district to provide the minimum necessary capital.

An examination of the total number of square miles contained in each district will give some indication of the importance of the area factor in determining the various districts. The smallest district, Philadelphia, contains approximately 37,000 square miles, while the largest one, San Francisco, contains 684,000

said to have had the most influence in the establishment of the Federal Reserve System are Representative Carter Glass, President Wilson, Secretary of the Treasury William Gibbs McAdoo, Secretary of State William Jennings Bryan, Colonel Edward M. House (the President's adviser), Professor H. Parker Willis of Columbia University, Professor J. Laurence Laughlin of The University of Chicago, and Mr. Paul M. Warburg, a Kuhn-Loeb partner. Over ten years after the passage of the Federal Reserve Act, Mr. Glass and Colonel House engaged in a literary combat over the relative importance of themselves as contributors to the new banking system. The respective arguments are set forth in *The Intimate Papers of Colonel House*, edited by Professor Charles Seymour, and *An Adventure in Constructive Finance*, by Mr. Carter Glass. Professor Seymour refers to Colonel House as the "guardian angel" of the Federal Reserve System. Mr. Glass vehemently denies any influence of Colonel House in the drafting of the Federal Reserve Act other than that due to his position of political go-between for President Wilson and those most influential in drafting the bill.


FEDERAL RESERVE DISTRICTS
MAINE
1
BOSTON
VT.
N. H.
MASS.
CONN.
R. I.
NEW YORK
2
N. Y.
Buffalo
PHILADELPHIA
3
PA.
DEL.
MD.
Pittsburgh
Baltimore
W. VA.
VA.
RICHMOND
5
N. C.
S. C.
Charlotte
CLEVELAND
OHIO
Cincinnati
4
Detroit
MICH.
IND.
Louisville
KY.
Nashville
TENN.
ATLANTA
6
GA.
Savannah
Jacksonville
FLA.
Birmingham
ALA.
CHICAGO
ILL.
7
WIS.
MINNEAPOLIS
MINN.
IOWA
MO.
ST. LOUIS
8
ARK.
Memphis
Little Rock
MISS.
New Orleans
LA.
N. DAK.
9
S. DAK.
NEBR.
Omaha
KANSAS CITY
KANS.
OKLA.
Oklahoma City
DALLAS
11
TEXAS
Houston
San Antonio
Denver
10
COLO.
N. MEX.
El Paso
MONT.
Helena
WYO.
IDAHO
Salt Lake City
UTAH
ARIZ.
Seattle
Spokane
WASH.
Portland
OREG.
12
NEV.
SAN FRANCISCO
CALIF.
Los Angeles
Boundaries of Federal Reserve Districts
Boundaries of Federal Reserve Branch Territories
Federal Reserve Bank Cities
Federal Reserve Branch Cities
Federal Reserve Bank Agency

square miles. In size, then, the San Francisco district is approximately nineteen times larger than the Philadelphia district. Population was likewise given as a determining factor. The most populous district, Chicago, contains approximately 17,500,000 people, while the Minneapolis district has only about 5,500,000 inhabitants. The population of the Chicago district is approximately three times greater than that of the Minneapolis district. Differences in size are justified, since the sparsely populated sections do not need the same banking facilities per square mile as the more thickly populated sections. These discrepancies are pointed out merely because area and population were given as factors determining the selection of the districts by the districting committee. In each district there is a reserve city which gives the district its name and likewise has located in it the reserve bank of that district. The reserve cities are Boston, New York, Philadelphia, Richmond, Atlanta, Cleveland, Chicago, Minneapolis, St. Louis, Kansas City, Dallas, and San Francisco.

One notices at the very outset that, although there are only twelve cities having reserve banks, two of them are located in one state (Missouri), St. Louis and Kansas City. These two cities are some four hundred miles apart, but thirty-five miles east of Kansas City the St. Louis district begins.[1] This does not seem to be compatible with the "trade area" factor given by the organization committee.

There were a number of intense conflicts over the choice of the reserve cities. One of the most important was that of the Southern districts, where the choice ultimately rested upon Atlanta and Dallas. Many persons thought that, because of the importance of cotton-growing in the United States, our principal cotton center, New Orleans, should have been given a Federal reserve bank, but it was given only a branch of the Atlanta bank. There was a three-cornered fight between Kansas City, Omaha, and Denver for the location of the reserve bank which ultimately was given to Kansas City. Denver is much more centrally located in this district, but the fact that Denver had one of the Federal mints was

[1] Some have felt that the strength of the Democratic leaders of Missouri, notably Senator James Reed, was partially, at least, responsible for these choices.

no doubt an important consideration in deciding against locating the reserve bank there. Omaha and Kansas City both claimed to be packing and grain centers; but Kansas City won, and Omaha had to be satisfied with a branch office.

It should be remembered that the composition of the organization committee was political in nature, all members being appointed by the new Democratic President, who had just come into power. Some have felt that the cities which got a reserve bank were chosen on a basis of political patronage, and that the districts were built around these cities. The attempt to satisfy as many interests as possible was, no doubt, an important consideration in creating the maximum number of districts. Very few changes have been made in the districts as they were originally set up. The Board of Governors does possess the power to shift territories from one district to another, and it has used this authority in several cases, so that some of the present districts are slightly different from what they were at the beginning. The New York district originally included only New York State, but it now includes small portions of Connecticut and New Jersey which bound New York City.

In order to do away with some of the inequalities of area covered by the various districts, each reserve bank was authorized to establish branch offices. The following branches were in existence at the close of 1934:

- San Francisco: Portland, Seattle, Spokane, Salt Lake City, Los Angeles
- Atlanta: Birmingham, Jacksonville, Nashville, New Orleans
- St. Louis: Little Rock, Louisville, Memphis
- Kansas City: Denver, Oklahoma City, Omaha
- Dallas: El Paso, Houston, San Antonio
- Cleveland: Cincinnati, Pittsburgh
- Richmond: Baltimore, Charlotte
- New York: Buffalo
- Chicago: Detroit
- Minneapolis: Helena

The Boston and Philadelphia reserve banks have no branch offices, since none has been thought necessary.

The Board of Governors. The decentralized setup of the Federal reserve banks due to the regional system called for some sort of a co-ordinating agency. This co-ordinating agency is the Board of Governors of the Federal Reserve System, formerly known as the Federal Reserve Board. The first Federal Reserve Board, appointed in 1914, was composed of seven members, five appointed by the President with the advice and consent of the Senate, and two ex-officio members, the Secretary of the Treasury and the Comptroller of the Currency. Later agitation for a direct representative of agriculture on the board led in 1923 to an increase in the number of appointed members to six, one of whom was a direct representative of agriculture. The Banking Act of 1935 changed the composition and powers of the central co-ordinating agency.

The Board of Governors of the Federal Reserve System is composed of seven members, all appointed by the President with the advice and consent of the Senate. There are no ex-officio members, so that the Secretary of the Treasury and the Comptroller of the Currency are eliminated from membership on the board. Members are appointed for a term of fourteen years and in such a way that only one term expires every two years. Membership on the board is a full-time position, carrying a salary of $15,000 a year. (This is the same as the salary of a cabinet officer.) After serving a full term, members are not eligible for reappointment. It was hoped that this provision would make board members more independent in their decisions on matters of Federal reserve policy during the time they served on the board.

There are no specific qualifications for membership on the Board of Governors, except that no more than one member may be from any one Federal reserve district, and that the appointments shall be made with due respect to the agricultural, commercial, and financial interests of the country. Originally (1914) two of the five appointed members were required to be persons with experience in banking and finance. This provision was deleted in 1922. In order to carry farther the independence of the

board members, it has been suggested that they be appointed for life and removable only "for cause." In this respect membership on the Board of Governors would be the same as membership on the Supreme Court of the United States. No such plan, however, has ever received serious consideration by Congress. Two members of the original board, appointed in 1914, served until the new Board of Governors came into existence in February, 1936. They were Adolf C. Miller, who was a professor of economics at the University of California before his appointment, and Charles Hamlin, who was the first governor of the Federal Reserve Board. Until 1936 the offices of the Federal Reserve Board were in the Treasury Building at Washington, D.C., and the Secretary of the Treasury, who was a member of the board up to that time, served as its chairman, although one of its appointed members was designated as governor of the board and another as vice-governor. The Board of Governors now has its own building.

The present chief executive officer of the board is the chairman. The chairman and vice-chairman are appointed by the President and serve four-year terms.[1] There is still some question of the ability of a $15,000-a-year salary to attract the type of person who is needed for membership on the Board of Governors. If membership carried considerable prestige, then the salary would not need to be so high to attract capable persons. In this connection Professor Weyforth believes that

> the personnel of the Board on the whole has doubtless compared favorably with that of other government commissions but in the main has not consisted of men of sufficient distinction so that the mere weight of their opinion could have a preponderant influence upon the credit policy of the system. As a matter of fact, membership on the Board does not seem to have made any decided appeal to men of great ability.[2]

The duties of the Board of Governors are extremely varied, and many of them are of a very general character. The following is a list of the more important duties:

[1] This means four-year terms as chairmen. They may be appointed to board membership for fourteen years.

[2] William O. Weyforth, *The Federal Reserve Board*, p. 189. Johns Hopkins Press.

1. *To approve or disapprove changes in rediscount rates.* At the present time each Federal reserve bank must submit to the Board of Governors every two weeks a recommended rediscount rate. The Board of Governors has authority to approve or disapprove the rate submitted. There was some question previous to the fall of 1927 as to whether the Federal Reserve Board had the power to do more than pass upon rediscount-rate changes initiated by the individual banks. In the fall of 1927 the board forced the Federal Reserve Bank of Chicago to lower its rediscount rate from 4 per cent to $3\frac{1}{2}$ per cent. The usual procedure, however, continues to be for the individual banks to recommend a change to the Board of Governors for its approval. In the spring of 1929 the board refused to allow the Federal Reserve Bank of New York to increase its rate from 5 per cent to 6 per cent. These two cases have been the outstanding examples of the board's refusal to approve the rediscount rates recommended to them by the individual banks.

2. *To determine open-market operations.* The Board of Governors does not completely determine open-market operations. The volume and timing of open-market operations is determined by the open-market committee of the Federal Reserve System. This open-market committee is made up of twelve members, of which the Board of Governors constitute seven and the remaining five are representatives of the Federal reserve banks. In selecting the five representatives of the individual reserve banks, the banks are grouped by two's and three's, each group selecting one representative. It is probably accurate to state, therefore, that the Board of Governors determines open-market operations because of its majority membership on the open-market committee.

3. *To determine and define the character of the paper which is eligible for rediscount within the limits of the Federal Reserve Act.* The Federal Reserve Act, as will be noted later, is extremely vague in its definition of paper which is eligible for rediscount. The rulings of the board, therefore, with respect to eligibility were very important before the passage of the Banking Act of 1935. This act states that "advances" may be made to member banks on the basis of the member bank's promissory notes secured to the satis-

faction of the Federal reserve bank. Loans made under this provision are at a rate not less than ½ of 1 per cent higher than the rediscount rate in effect at the time. Where possible, therefore, the Federal reserve bank will rediscount in the regular way, and the rulings of eligibility made by the Board of Governors will continue to be of some importance.

4. *To permit or require one Federal reserve bank to rediscount the paper of another.* Such an operation is usually referred to as an "interdistrict accommodation." At only one time in the history of the Federal Reserve System has it been necessary for one district bank to aid another. This was the period immediately following the World War. During 1921 the New York, Boston, Philadelphia, and Cleveland reserve banks extended loans to the Atlanta, Richmond, Kansas City, Dallas, and Minneapolis banks.

5. *To suspend for a period of thirty days, and renew such suspension for periods not exceeding fifteen days, any reserve requirement specified in the act upon the payment of a graduated tax for the deficiency in reserve.* One of the criticisms of the American banking system, especially made by foreign writers, has been that our system of reserve requirements is too rigid. This power of the Board of Governors to suspend temporarily under penalty the regular reserve requirements which the Federal reserve banks are required to keep against their notes and deposits introduces some flexibility. It has never been necessary to suspend the reserve requirements of all twelve reserve banks at one time.

6. *To supervise the issuance of Federal reserve notes.* This function of the Board of Governors, although thought to be important at the time of the writing of the act, has turned out to be relatively unimportant. The issuance of Federal reserve notes, which will be explained in some detail later in the chapter, is a more or less routine matter.

7. *To supervise the Federal reserve banks and to insure the soundness of their operation.* To carry out this provision the Board of Governors is given a number of more definite powers, including

a. Power to examine the account books and affairs of each Federal reserve bank.

b. Power to require statements and reports of conditions. At the

present time a detailed statement of the condition of each Federal reserve bank is published weekly.

c. Power to suspend or remove any director or officer of any reserve bank for due cause.

d. Power to require any reserve bank to write off doubtful or worthless assets.

e. Power to suspend any reserve bank for violations of the act.

f. Power to liquidate and reorganize such banks.

The Control of the Individual Reserve Banks. Each individual reserve bank has a board of directors made up of nine members. Three of these are known as Class C directors and are appointed by the Board of Governors. The other six directors are divided into two groups of three each. The three Class A directors may be bankers, while the Class B directors must be representatives of trade, agriculture, or industry. Thus the banks are to be represented by the Class A directors, business by the Class B directors, and the public through the Board of Governors by the Class C directors.

The six Class A and Class B directors are elected by the member banks. In voting the member banks are divided into three groups according to size, and each group selects two directors, one Class A director and one Class B director. This classified voting was put into the act in order to prevent so-called big-business control of the Federal reserve banks. The smaller banks are thus given two directors on the board, the medium-sized banks two directors, and the largest banks two directors. In spite of this precaution, however, it has usually been true that the men appointed by the Board of Governors represent large business interests. The Board of Governors naturally appoints persons in the district who are well known, and well-known men are usually connected with large business interests. Conceivably, then, although this is not of any particular importance in the history of the policies of the Federal Reserve System, big business may be represented by as many as five members on the directorates of the individual reserve banks.

The chief executive officer of a reserve bank is the president, formerly known as the governor. There was no provision in the

original act for a governor, and the Federal Reserve Agent served as the chairman of the individual boards. Customarily the individual reserve banks elected some person to serve as governor and act as the chief executive officer of the bank. Since 1936 the boards of directors of the individual reserve banks submit for approval the name of a president to the Board of Governors. When approved by the Board of Governors, the president is usually appointed as one of the Class C directors. The president also serves as chairman of the board.

The presidents of the individual banks are in general the highest paid officials in the Federal Reserve System. The Federal Reserve Bank of New York has paid as high as $50,000 a year to its chief executive officer. The significance of this is that men of higher caliber are likely to be attracted to the individual presidencies rather than to the Board of Governors. Two members of the Board of Governors have resigned in order to accept the governorship of the Federal Reserve Bank of Boston.[1]

The Federal Advisory Council. The Federal Advisory Council is composed of twelve members, one member representing each Federal reserve district. The members of the council are selected annually by the boards of directors of the Federal reserve banks. Their compensation is determined by the individual directorates. The council meets with the Board of Governors at Washington at least four times a year, and has the following duties:

1. To make recommendations concerning general matters pertaining to banking and credit policies.
2. To discuss general business conditions with the Board of Governors.
3. To make recommendations concerning matters within the jurisdiction of the Board of Governors.

The Federal Advisory Council, although it actively fulfills its duties each year, has not been a particularly important factor in the administration of the Federal Reserve System. To be elected to the Federal Advisory Council is usually considered

[1] W. P. G. Harding and Roy A. Young. The late Governor Eugene Black of the Federal Reserve Bank of Atlanta became governor of the Federal Reserve Board in 1933, but later resigned, August, 1934, to return to his position as governor of the Federal Reserve Bank of Atlanta.

as one of the honors which go with long-term services on the individual directorates.

Reserve Requirements. The Federal reserve banks are required to keep reserves against both their deposits and their notes. These will be discussed separately.

Reserves against Deposits. The Federal reserve banks may accept deposits of their member banks, of the government, and of foreign banks; but the deposits of the member banks are the most important. These deposits are the legal reserves of the member banks and their only legal reserves. Not even "cash in vault" may be counted as part of a member bank's legal reserve. Against these deposits of the member banks the Federal reserve banks in turn must keep a reserve of 35 per cent, made up of gold or lawful money.[1] This requirement may be suspended, with the permission of the Board of Governors, under penalty.

One of the principal reasons for the formation of the Federal Reserve System was to get away from the "pyramiding of reserves" defect of the old national banking system. Member-bank reserves are deposited with the Federal reserve bank but may not be redeposited with any other bank. In a sense the pyramiding still exists, but the reserves are carried with governmental non-profit-seeking institutions, the Federal reserve banks, and they are supposed to be able to meet emergency demands from their member banks in times of stress. The amount of the legal reserve was decreased shortly after the reserve system got under way. The old classification of banks according to the size of the city in which they were located — country banks, reserve city banks, and central reserve city banks — still exists, but their percentages have been changed from 15, 25, 25, to 7, 10, 13, for demand deposits. Thus 13 per cent of the demand deposits of member banks located in New York City and Chicago[2] must be kept on deposit with the Federal reserve banks of these districts. Against the time deposits of all member banks a 3 per cent reserve in the form of a deposit with the Federal reserve banks must be kept.

[1] The principal element of our currency which is not lawful money is the Federal reserve note. Gold certificates are now substituted for gold.

[2] St. Louis was taken from the central reserve city group in 1923.

We have noted previously that the amount of cash actually held behind a deposit under the national banking system was a great deal less than the stated legal percentage required, because part of the reserve might be redeposited in another bank. At the present time the following situation exists with regard to the amount of cash which must be legally held against the deposits of, say, a reserve city bank:

Bank	Deposit	Total Reserve	Cash	Must Deposit
Reserve city bank .	$10,000	$1000	——	$1000 (with Fed. res. bank)
Federal reserve bank	1,000	350	$350	——
	$11,000	$1350	$350	$1000

In our former example, under the national banking system (see page 513), approximately a $7\frac{1}{2}$ per cent cash reserve was held against the deposit of a country bank. In this case the cash reserve is only $3\frac{1}{2}$ per cent. This gives some idea of the potentialities of bank-credit expansion under the Federal Reserve System.

Perhaps a clearer way of showing the amount of bank credit which cash or gold certificates in the Federal reserve banks will support is as follows: Suppose a Federal reserve bank holds $100 in gold certificates. These gold certificates will fulfill the legal reserve requirement for approximately a $300 Federal-reserve-bank deposit. This $300 Federal-reserve-bank deposit in turn will support $3000 of member-bank credit, on the assumption that an average member-bank reserve requirement is 10 per cent. In this particular case, then, $100 in gold certificates held by a Federal reserve bank will support approximately $3000 in member-bank deposits, a ratio of nearly 30 to 1.

This oversimplified statement will give at least some indication of the possibilities of expansion under the Federal Reserve System. It is important to note this situation when considering the adequacy of our present gold supply to support our credit structure. The Federal Reserve System without doubt economized the use of gold, making it possible for a given amount of gold to support a larger volume of bank credit. At first this would seem

to be a tremendous advantage, but it may be that the excessive expansion which took place between 1922 and 1929 would not have occurred, and therefore the subsequent collapse would not have been as severe, if there had been no Federal Reserve System with such potential expansive power.

A last consideration in this connection has to do with the unique position of the United States with regard to reserves against deposits. Most other countries do not require that legal reserves be kept against bank deposits. In justifying this situation these countries point out that the amount of cash which a bank should hold should be left to its own discretion. There are no legal reserves against deposits in England, France, Belgium, and Germany. A reserve is something which you should be able to use in an emergency, and yet, if legally you must keep at all times a certain amount on hand, then when the emergency arises you cannot use it. The situation is somewhat like that created by an ordinance regarding a water-pressure tank in a certain small town. The ordinance said that the pressure tank must be kept at least one-third full at all times, which legally meant that in case of fire the last third could not be used.

The Federal Reserve System modified our former situation somewhat by making it possible to suspend the reserve requirements, under penalty, for short periods. But our banks are still in the anomalous position of having to keep so-called reserves which cannot be used even in emergencies except under penalty.

Reserves against Federal Reserve Notes. Another purpose of the establishment of the Federal Reserve System was to provide an elastic currency. The principal provision of the act toward this end is the Federal reserve notes. These notes, issued by the Federal reserve banks, are backed 100 per cent, but only 40 per cent of the backing must be in gold [1]; the remaining 60 per cent may take the form of commercial paper, government bonds, or acceptances held by the Federal reserve banks. Theoretically, therefore, $1 of gold will support $2.50 of Federal reserve notes. Originally the 60 per cent requirement had to be made up of

[1] Gold certificates have had to be used since February, 1934, because the United States Treasury holds all the gold bullion.

commercial paper, that is, rediscounts or acceptances held by the Federal reserve banks.

An elastic currency was supposed to result from the 40 per cent gold requirement plus the 60 per cent commercial paper for the reason that more money is needed in times of greater business activity, as a result of which, it was believed, the Federal reserve banks would have more commercial paper and therefore would be able to issue more Federal reserve notes. This worked very well during the early years of Federal reserve operations, and especially well during the war and the boom period which followed, when the volume of money in circulation accompanied the increase in the volume of business. Beginning with the summer of 1931, however, the volume of money in circulation[1] began to increase very noticeably, although business activity continued to decline. This was due to what is called hoarding. Since the Federal reserve note was the principal element in our money circulation, the Federal reserve banks began to experience a shortage in the 60 per cent commercial-paper requirement, because the low ebb of business was providing them with very little commercial paper. This was the second case since the establishment of the Federal Reserve System when money in circulation and the volume of business moved in opposite directions rather than in the same direction. During this period additional Federal reserve notes had to be issued on the basis of 100 per cent gold backing, because the law stated that there must be 100 per cent backing of which at least 40 per cent had to be gold, and the reserve banks did not hold commercial paper in sufficient volume to be used for the remaining 60 per cent.

In order to increase the limit to which Federal reserve notes might be issued, Congress passed the Glass-Steagall Bill of February, 1932. One of the principal provisions of this bill was to allow the Federal reserve banks to use their holdings of United States securities as part of the 60 per cent reserve requirement behind Federal reserve notes. It happened that the reserve banks were

[1] Money in circulation as officially reported means all money outside the vaults of the United States Treasury. It does not mean that it is actually circulating. It may be in the vaults of banks or in the hoards of individuals.

holding a large amount of United States securities at the time of the passage of the Glass-Steagall Bill, and soon after its passage they began to purchase more government securities in very large volumes. The Federal reserve note was thus kept as an elastic currency in spite of the dearth of commercial paper.

Between 1921 and 1934 the Federal reserve note constituted on the average about half of our total money in circulation. It is therefore our most important currency, and likewise our most elastic currency. The Federal reserve banks assume a passive attitude in the issuance of Federal reserve notes; that is, they issue them when the member banks require additional currency, and retire them when the member banks return currency to the Federal reserve banks. In short, they issue Federal reserve notes when they are needed and retire them when they are not needed. It is important to keep in mind this passive attitude of the Federal reserve banks in the issuance of Federal reserve notes when discussing the issuance of fiat money, greenbacks, or any of the other proposals which were suggested during the depression period. So long as a new monetary issue did not exceed the volume of Federal reserve notes outstanding, such an issue would probably just displace Federal reserve notes, and would therefore have no effect on the total volume of money in circulation. Unless something happened which would cause people to demand more cash from the banks, Federal reserve notes would be canceled to the extent that new currency was issued.

This principle may be illustrated as follows: Periodically there is the suggestion that the soldiers' bonus should be paid in greenbacks. The amount owed the veterans is approximately $2,000,000,000. There are some $3,000,000,000 of Federal reserve notes outstanding, so that one of the most likely consequences of issuing fiat money to pay the soldiers' bonus would be the cancellation of about two thirds of our Federal reserve notes. This, of course, assumes that the total amount of cash money outstanding remains the same, which is a logical assumption unless something happened to cause the people to hoard cash or to use cash money more (and fewer checks) in settling business transactions.

Reserves against Federal Reserve Bank Notes. In addition to

Federal reserve notes the Federal reserve banks have the power to issue Federal reserve bank notes. These bank notes have been issued under three distinctly different circumstances. They will be considered in order.

1. In the original Federal Reserve Act, of 1913, a provision was included for the issuance of Federal reserve bank notes to take the place of national-bank notes. It will be recalled that national-bank notes were secured 100 per cent by government bonds, but these government bonds carried a very low interest rate. The framers of the act thought the national banks would be willing to call in their national-bank notes if they could find a market for the bonds which they were using as security behind them. So the act provided that the Federal reserve banks should purchase the bonds at par. The Federal reserve banks in turn were to issue Federal reserve bank notes with these same bonds as collateral. After the Federal Reserve System got under way, it was found that the national banks were not willing to discontinue the issuance of their notes. As a consequence very few Federal reserve bank notes were issued under this provision.

2. During the war India experienced a shortage of silver, which was her primary circulating metal. England agreed to purchase additional silver for India and asked the United States if it wished to dispose of its holdings. Most of the silver which the United States held at that time was being used as backing for silver certificates. The Pittman Act, passed in 1918, provided for the sale of the silver which was used as security for our silver certificates to England for India's account. It also provided that the Federal reserve banks were to issue Federal reserve bank notes, backed by Pittman certificates, to take the place of the silver certificates which would be withdrawn from circulation. As soon as feasible, the government was to purchase silver and reissue silver certificates. This process began in 1921, when the government purchased silver at a dollar an ounce. As fast as the silver certificates were reissued, Federal reserve bank notes were canceled.

3. The Emergency Banking Act of March, 1933, passed during the bank holiday, provided for another issue of Federal reserve

bank notes. At this time $2,000,000,000 worth of Federal reserve bank notes were printed, and it was advertised that sufficient currency was now in existence to satisfy the demand on all banks which would reopen after the holiday. These notes were issued by the Federal reserve banks and secured by their principal earning assets: government bonds, rediscounts, and acceptances. Again only a few of these notes were issued, some $230,000,000, and steps were soon taken to call in the amount which had been issued. Less than $90,000,000 were in circulation in May, 1935.

Thus the Federal reserve bank note has been issued under three different conditions at three different times, but has never been an important element in our monetary system.

Membership in the Federal Reserve System. Just what is the importance of the Federal Reserve System to the average bank? First of all, if the bank is a national bank, it must join the Federal Reserve System. If it is a state bank, it may or may not become a member of the Federal Reserve System. If it becomes a member, it must live up to the requirements of the Federal Reserve System. As of June 30, 1934, the banks of the United States were classified as follows:

Total number of banks in the United States[1]	15,835
Member banks	6,375
Mutual savings banks	578
Others	8,882
	15,835

As of October 17, 1934, 6433 banks belonged to the Federal Reserve System. These included 5461 national banks and 972 state banks. To speak of membership in the Federal Reserve System purely on the basis of numbers is somewhat misleading. It is true that approximately only 41 per cent of the banks in the United States belong to the Federal Reserve System; but these banks do approximately 83 per cent of the country's commercial banking business. In other words, the larger banks belong to the Federal Reserve System. In the case of New York City every member of the New York Clearing House Association is a mem-

[1] Licensed banks only.

ber of the Federal Reserve System. In general a larger percentage of the banks belong to the Federal Reserve System in the eastern and north-central sections of the United States than in the southern and western sections. On the basis of Federal reserve districts the membership is relatively highest in the New York district.

The following table gives a summary of Federal reserve membership since the inauguration of the system and the percentage of the total commercial banking business done by the member banks as measured by total loans and investments:

Year	Percentage of the Total Number of Banks in the United States which Belong to the Federal Reserve System (Exclusive of Mutual Savings Banks)	Percentage of Total Loans and Investments of All Banks Held by Member Banks (Exclusive of Mutual Savings Banks)
1914[1]	29.3[2]	49.5[2]
1915	29.3	50.3
1916	28.8	50.7
1917	28.5	52.4
1918	29.7	67.7
1919	31.5	70.8
1920	32.2	70.3
1921	32.6	70.3
1922	33.5	71.2
1923	33.9	71.1
1924	34.0	71.9
1925	34.3	72.0
1926	34.6	72.2
1927	35.0	73.5
1928	35.4	73.0
1929	35.5	73.4
1930	36.3	75.4
1931	37.4	78.0
1932	38.3	79.0
1933	41.1	82.7

Whether or not a state bank for its own benefit should join the Federal Reserve System has always been a very controversial

[1] The years 1914–1922 as of June 30; 1923–1933 as of December 31.

[2] These figures are for national banks prior to Federal reserve existence.

question. Many state bankers have claimed that there is no particular benefit to be derived from Federal reserve membership, since they can obtain the same accommodations from their city correspondent banks as they could from a Federal reserve bank. This is especially true of the smaller state banks. The advantages to a state bank of Federal reserve membership have been summarized as follows:

1. *a.* Rediscounting, to secure aid in time of emergency and remedy a temporary shortage of currency, and also to build up reserve.
   b. Ability to borrow on member bank's own fifteen-day promissory note, secured by commercial paper or government obligations.
   c. Feeling of security and peace of mind arising from the knowledge that assistance may always be had.
2. Prestige which attaches to membership, and its value as an advertising feature to attract new business.
3. Services performed free of charge by the Federal reserve bank. These are the payment of all expenses of transferring funds or currency by mail, express, or wire.
4. Assistance received from officers of the Federal reserve bank on many matters.
5. Full benefit of a clearing-and-collection system for checks.
6. Profit from more favorable rate on member-bank acceptances.
7. Possibility of receiving larger deposits from other member banks and trust companies.
8. Can serve as a depository for postal-savings funds or as a government depository.[1]

Just what are the requirements for membership in the Federal Reserve System? First of all, a member must subscribe to the capital stock of the Federal reserve bank of its district to the extent of 6 per cent of its capital and surplus. Thus far, only half of this amount, 3 per cent, has been paid in, but the remainder is subject to call. Secondly a member bank must keep all its legal reserves on deposit with the Federal reserve bank. These deposits pay no interest, and this is one of the reasons why state banks have been reluctant to join. Lastly member banks are subject to

[1] C. S. Tippetts, *State Banks and the Federal Reserve System*, p. 196. This book is devoted to an analysis of the state-bank-membership controversy.

the supervision of Federal reserve banks at all times. In many cases this is a formality, as the reserve banks are willing to accept the examinations and supervision of the national-bank and state-bank examiners.

For the stock which the member banks hold in the Federal reserve banks the member banks receive a 6 per cent dividend. This dividend has not always been earned by all the reserve banks; when not earned it has been paid by drawing on past earnings. Originally the Federal Reserve Act provided that after the payment of this 6 per cent dividend to the member banks and after a large surplus account had been built up, the remainder of the earnings were to go to the government as a franchise tax. There have been years when this tax was an important source of revenue for the government. In 1920 the United States received approximately $61,000,000 from this source. The Bank Act of 1933, however, provided that the Federal reserve banks should no longer pay a franchise tax. All earnings after the payment of the 6 per cent dividend to the member banks were to be carried to surplus. In the same act, however, the Federal reserve banks were required to subscribe to the common stock of the Federal Deposit Insurance Corporation to the extent of half of their surplus.

One of the principal provisions of the Bank Act of 1933 was the formation of the Federal Deposit Insurance Corporation. The temporary form of this law lasted until July 1, 1935. Until July 1, 1937, any bank may participate in the guaranteed-deposit provision of the Federal Deposit Insurance Corporation. After July 1, 1937, however, only those banks which are members of the Federal Reserve System may come under the guaranteed-deposit provision. This provision will, no doubt, aid in forcing state banks to join the reserve system, unless the act is amended prior to that date.[1]

[1] All references on the Federal Reserve System are given at the end of Chapter XXVI.

CHAPTER XXV

OPERATIONS OF THE FEDERAL RESERVE SYSTEM

As was pointed out in a previous chapter, the Federal reserve banks are primarily bankers' banks. Their dealings with individuals, corporations, etc. are very limited, although there are several provisions in the banking legislation passed during the years 1933 and 1934 which give the Federal reserve banks the power to deal directly with individuals under very special circumstances. For example, the Industrial Loan Act, passed in June, 1934, provides for the granting of Federal reserve bank loans directly to individuals in case those individuals cannot secure loan accommodations at their own banks. This act also provides that certain loans made by commercial banks may be partially guaranteed by the reserve banks. The operations of the Federal reserve banks discussed in this chapter, however, will be limited to the more important dealings of these banks with their members.

Rediscounts. There is little question that the framers of the Federal Reserve Act intended rediscounting to be the principal means of access which the member banks would have to the Federal reserve banks. Rediscounting was to be carried on in the following manner: If a member bank grants a loan to a customer and takes a promissory note in return for the loan, this promissory note, if eligible, can be passed on to the Federal reserve bank. Suppose, for example, that a member bank holds a promissory note for $1000 due in ninety days and that the member bank advanced its customer $1000 less a 6 per cent discount for the period, $985. If this note is eligible for rediscount, the member bank may send it to the Federal reserve bank and receive for it the face amount less the rediscount rate of the Federal reserve bank for the period. On the assumption that the rediscount rate is

4 per cent, the member bank will receive $990 for the promissory note. Profit can usually be derived in this manner, since the rediscount rate is almost always less than the rate charged by the member bank.

But what would be the purpose of a member bank's rediscounting with the Federal reserve bank? Is it not true that a commercial bank is primarily in the money-lending business and therefore is not interested in acting merely as an intermediary between the Federal reserve bank and the borrower, as is the case in our example? It was intended that the member banks would not use the rediscounting privilege except in cases of emergency. Under the old national banking system, when banks kept a large portion of their reserves redeposited in other banks, they called upon these other banks in times of stress. The Federal Reserve System, as the sole keeper of member-bank reserves, was to absorb these unusual demands; but, since a member bank could not draw upon its reserve beyond the legal minimum, rediscounting with the Federal reserve bank, which is in essence the selling of member-bank assets to the reserve bank, was provided in order to aid the member banks in times of stress. The Federal reserve banks are not required to rediscount even the best paper for a member bank unless they are "such discounts, advancements and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks."[1]

In the matter of administering aid to the member banks through the medium of rediscounts the interpretation of the act has been that member banks are not to borrow from the Federal reserve banks for too large amounts or remain continuously in debt to the Federal reserve banks. In other words, rediscounting was to be the exception and not the rule.

Why would the Federal reserve banks be in any better position to aid member banks in times of stress than the redepository banks under the national banking system? First of all, the Federal Reserve System was not to be operated primarily for profit. One purpose of the previously discussed franchise-tax provision was to remove the profit motive as a principal factor in determining

[1] Section 4, Federal Reserve Act.

Federal reserve policy. In addition the Federal Reserve System was to be a quasi-governmental institution, owing to the influence of the Board of Governors, which is appointed by the President, with the advice and consent of the Senate. Under the national banking system all banks found that it was good business policy to expand their loans as far as their reserves would permit; idle reserves meant loss of income. Even the redepository institutions were usually expanded to capacity at the time when the smaller banks were calling for their redeposited reserves. The Federal reserve banks, however, supposedly would hold themselves in readiness to take care of periods of stress, even though it were costly. It might be a normal thing for Federal reserve banks to have excess or idle reserves.

Aside from the fact that excessive or continuous rediscounting would be frowned upon by the Federal reserve authorities, why would it not be very profitable to the member bank to rediscount its customers' notes as fast as it granted loans? It is true that the rate which the member bank charges its customers is almost always higher than the rediscount rate which the reserve bank charges its member. Supposedly, then, at the close of each day, if the member bank were to send all the promissory notes which it had taken in during the day on a 6 per cent discount basis to the Federal reserve bank to be rediscounted at a lower rate, the member bank would be the gainer to the extent of the difference in the two rates. To illustrate: The bank, a 6 per cent rate being assumed, would give the borrower $97 for a $100 six months' note; but if the rediscount rate was 4 per cent, then it could sell the note to the Federal reserve bank for $98.

Aside from the previously mentioned limitation to the amount of rediscounting, there is likewise the eligibility limitation. There are, primarily, two conditions of eligibility: First the maturity of the paper must not exceed ninety days from the time it is rediscounted, except in the case of agricultural and livestock paper, where the time is extended to nine months. This exception for agriculture is easy to explain, since most crops have a growing season which is in excess of ninety days, and if, therefore, ninety days were the limit, most agricultural paper would not be eligible

for rediscount. It is important to note that this provision states that maturity cannot exceed "ninety days from the time of rediscounting," which would permit, for example, a note for one year that has already run for nine months to be eligible for rediscount. The second requirement for eligibility deals with the nature of the transactions out of which the loan arises. The act states that rediscounts may include "notes, drafts, and bills of exchange issued or drawn for agricultural, industrial, or commercial purposes, or the proceeds of which have been used or are to be used for such purposes."

Just what constitutes industrial and commercial paper, of course, is extremely indefinite. That is why the rulings of the Board of Governors on eligibility are important. For example, suppose that a building contractor is building a number of residences in the hope of selling them. The Board of Governors has ruled that if the contractor has borrowed money in order to build these houses, the note which he gives his bank is eligible for rediscount. If some private person, however, builds a home and has to borrow even a very small portion of the total cost of construction, this paper is not eligible, because it does not arise out of the board's interpretation of an industrial or commercial transaction. Various estimates have been made as to the percentage of the total loans made by member banks which are eligible for rediscount. It is probably conservative to say that, on the average, less than a fifth of all member-bank loans are eligible. As of December 31, 1932, the member banks had loans of $15,204,000,000 but eligible paper of only $2,246,000,000, approximately 15 per cent.

In addition to rediscounting, the Banking Act of 1935 states that Federal reserve banks may make advances to member banks on their time or demand notes having maturity of not more than four months and secured to the satisfaction of the Federal reserve banks. These advances shall bear interest at a rate not less than ½ of 1 per cent higher than the rediscount rate in effect at the time.

The act specifically states that paper arising out of speculative transactions will not be eligible for rediscount: "notes, drafts, or

bills covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States, shall not be eligible for rediscount." This regulation, however, does not prevent a member bank from rediscounting eligible paper at the reserve bank and then using all or a portion of the proceeds in speculative transactions.

The rediscounting procedure has changed a great deal since the inauguration of the Federal Reserve System. During the war (1917) provision was made for the member banks to secure what is usually called an "advance" from the Federal reserve banks. These advances were made on the basis of the promissory notes of the member banks, secured by government bonds or eligible paper. The maturity of such promissory notes could not exceed fifteen days but could be renewed. The primary purpose of the advance secured by government bonds was to stimulate the selling of United States securities and thus aid the government in financing the war. If the bank purchased government bonds, it could thereupon borrow on them from the Federal reserve banks on very short notice. In order to encourage further the purchase of government bonds by banks the reserve system offered preferential rediscount rates on the advances of the member banks which were secured by government bonds. This preferential-rate system was discontinued in 1921. Since the war most of the aid which the member banks have received from the Federal reserve banks has been on the basis of an advance rather than a rediscount (in the strict sense). This is especially true of the larger banks, which usually hold large volumes of government bonds.

A great deal of controversy has arisen over this new method of obtaining aid from the reserve banks. Many writers, probably the most prominent of whom is H. Parker Willis, who was instrumental in framing the act, contend that the Federal reserve banks should extend aid only on the basis of commercial paper which is self-liquidating. To extend aid to the member banks on the basis of paper which did not arise directly from a commercial, industrial, or agricultural transaction might mean that a reserve bank's credit was being used by the security markets, and this would be

opposed to the purposes of the Federal Reserve System. An investment portfolio consisting largely of government securities is considered by Professor Willis as being a nonliquid one.

A peculiar practice has developed with regard to advances secured by eligible commercial paper. The Federal reserve banks have, in many cases, required more than 100 per cent collateral. This means that if a member bank secures a $10,000 advance from the Federal reserve bank on the basis of its own promissory note, with its own eligible paper as collateral, the Federal reserve bank may require $20,000 of eligible paper as security. This does not seem to be in keeping with the intent of the act, because, if this commercial paper were actually rediscounted, the member bank would receive credit for the full $20,000.[1]

Open-Market Operations. Federal reserve banks have the same power to buy and sell United States securities and acceptances in the open market as any other banks or individuals.[2] The purpose of the open-market powers may be illustrated as follows: Suppose that during a period of prosperity Federal reserve authorities feel that the expansion of loans by member banks is becoming excessive. In order to prevent the member banks from securing too much aid from the reserve banks, the rediscount rate may be raised. This should discourage member banks from rediscounting. In addition, however, the Federal reserve banks, if they hold any United States securities at the time, may sell them in the open market. On the assumption that the purchaser of the securities is a member bank, the securities will be paid for by reducing the deposit account which the member bank carries with the Federal reserve bank. Since this account is the legal reserve of the member bank, it will be forced to rediscount at the higher rate in order to replenish its reserve; otherwise the amount of loans and

[1] For a more complete discussion of this point see "Collateral at the Federal Reserve Banks" (*American Economic Review*, March, 1932), by Ray B. Westerfield.

[2] Municipal warrants are likewise included, but the reserve banks' dealings in them thus far have been slight. The term "open market" as used here has no technical meaning; it includes any market in the United States which the reserve banks might choose to use for their purchases and sales of United States securities and acceptances.

hence deposits which it will be able to make will be curtailed. In either case the Federal reserve bank has accomplished its original intent. Even if an individual who is a customer of a member bank purchases the securities sold by the Federal reserve bank, the net result is the same as if the bank purchased them, because the individual will pay the reserve bank by a check on a member bank, and when the reserve bank collects this check, the member bank will pay by drawing down its account in the reserve bank. The member bank, in turn, will deduct a like amount from its customer's account.

Contrarywise in depression periods when the reserve banks wish to stimulate an expansion of loans by member banks, the reserve banks can purchase government securities. If these are purchased from member banks, they are paid for by increasing the deposits of the member banks (their legal reserves) at the Federal reserve banks. An incentive is thus created for further member-bank-loan expansion. During the five months' period from February to August, 1932, the Federal reserve banks purchased approximately $1,000,000,000 of government securities in order to stimulate member-bank-loan expansion. After the passage of the Inflation Bill in April, 1933, they again purchased government securities in large volumes. During these periods, however, member banks did not expand loans but rather allowed their reserves to pile up until they had an excess of over $2,000,000,000 at the close of 1934. This could support a member-bank expansion of approximately $20,000,000,000. These figures, of course, show only the general trend. There were periods of very short duration when loans expanded.

Some of the securities purchased by the reserve banks are bought under terms known as a "repurchase agreement." This means that the seller needs funds for only a short period, say, fifteen days, and does not wish to get rid of his government securities; so he may sell them to the Federal reserve banks, with the agreement that he will repurchase them at the end of the fifteen-day period.

The other type of security which the Federal reserve banks may buy and sell in the open market is the acceptance. Their position

with regard to the purchases and sales of acceptances, however, is entirely different from their position with regard to United States securities. In the Federal Reserve Act the national banks were given the right to accept drafts for their customers, and in order to encourage the use of acceptances the Federal reserve banks stand ready to buy all acceptances which are brought to them at any time, in any volume. Any acceptance house can therefore unload its entire portfolio on the reserve banks at any time. Furthermore, the Federal reserve buying rate on acceptances is almost always lower than its rediscount rate. The reserve banks, then, assume a passive attitude, in that they usually do not go out into the market and openly bid for acceptances; instead they serve as a reservoir, for they are willing to purchase acceptances at preferential rates at all times. Although the reserve banks may sell acceptances in the open market, they seldom do; usually they hold them until maturity.

The open-market purchases and sales of United States securities are made through the open-market committee. Until 1923 each reserve bank made its own purchases and sales of United States securities. This is still the case for the purchases and sales of acceptances. Since the primary market for United States securities is New York City, most of the open-market operations are now carried on there. The open-market committee is composed of twelve members — the seven members of the Board of Governors and five representatives of the individual reserve banks. These five representatives are chosen annually by the reserve banks. After an open-market policy has been decided on, all securities are purchased through a special investment account. The securities, in the case of purchases, are then apportioned among the various Federal reserve banks. There is no "rule-of-thumb method" of distributing the securities, but such factors as the size of a reserve bank and the needs of the bank in order to earn its 6 per cent dividend on the member banks' stock are important in determining the volume allotted to it.

As there are two principal powers possessed by the Federal reserve banks, the question arises as to which is the more important or whether they are equally important. There seems to

be no doubt that the framers of the Federal Reserve Act intended the rediscounting power to be the more important. Early treatises on Federal reserve policy explained that the open-market operations of the Federal reserve banks were to be used in much the same manner as the open-market operations of the Bank of England, merely to make the rediscount rate effective. The explanation is as follows: Suppose that, in order to curb the excessive expansion of member banks, the Federal reserve banks raise their rediscount rate, but, owing to the fact that member banks do not or are not forced to rediscount, the new rate is ineffective. In order to make it effective, the Federal reserve banks can sell government securities and thus reduce the reserves of the member banks to a point where it will be necessary for them to rediscount. The rediscount rate would thus be made effective.

In general, open-market operations were of little significance until after the war, but since that time many have felt that open-market operations have been more important than rediscounting. Soon after the beginning of the depression, in 1929, rediscounts declined to a very low level. (There was a temporary increase just before the bank holiday in March, 1933.) The reserve banks' holdings of United States securities, on the other hand, steadily increased between 1930 and 1934. During 1934, for example, the Federal reserve banks held, on the average, approximately $2,300,000,000 of government securities, while their rediscounts averaged less than $50,000,000. Even between 1921 and 1930 the reserve banks' holdings of United States securities averaged almost as much as their holdings of rediscounts. Many commentators have pointed to this as a very unhealthy situation, wherein the Federal reserve banks are merely adjuncts to the United States Treasury. They state that the Federal Reserve System was formed in order to aid the commercial banks of this country in better serving the industrial, commercial, and agricultural interests by rediscounting self-liquidating paper. To deal primarily in United States securities is to deviate widely from this function.

Clearings and Collections. One of the major difficulties mentioned in connection with the effectiveness of the national banking system was the lack of a central clearance agency. Collections

within the United States were handled in much the same manner as collections against foreign countries. For example, there was a quoted exchange rate between New York and Chicago. The Federal Reserve Act provides for a wire-transfer clearance system through the medium of a Gold Settlement Fund. The reserve banks are the chief agencies administering the wire-transfer system.

Gold Settlement Fund. Each Federal reserve bank keeps a deposit of gold in the central Gold Settlement Fund at Washington. For one reserve bank to pay another it is necessary only for one reserve-bank account at Washington to be debited and another credited. These transfers are made at the close of each day's business, when each Federal reserve bank wires the administrator of the Gold Settlement Fund the amounts of the checks and other items which it holds against the other reserve banks. After offsetting items are taken care of, transfers then become bookkeeping entries.

The checks which are to be collected, however, are not checks drawn directly on the reserve banks. The reserve banks merely receive checks for collection drawn upon commercial banks. The method is as follows: Suppose Mr. Jones, who carries an account with the Chase National Bank of New York City, receives a check drawn upon the First National Bank of San Francisco. The first step in the collection process is for him to deposit it with the Chase National Bank. The Chase National Bank may or may not give Mr. Jones immediate credit for the amount of the check. The reason for this will be explained later. The check will pass through the daily clearings of the New York Clearing House and will be sent to the Federal Reserve Bank of New York (which is a member of the clearinghouse), since it is an out-of-town check. The Federal Reserve Bank of New York will then send the check to the Federal Reserve Bank of San Francisco, which, in turn, will present it to the First National Bank of San Francisco for collection. If the check is honored by the First National Bank of San Francisco, the Federal Reserve Bank of San Francisco will receive its money by reducing the First National Bank's account, and it will remit to the Federal Reserve Bank of New York through the medium of the Gold Settlement Fund.

The Federal reserve banks do not entirely finance the clearing process. By this is meant that they do not give, in our example, immediate credit to the Chase National Bank.[1] The Federal Reserve Bank of New York does, however, give credit to the Chase National Bank before it actually receives the payment from the Federal Reserve Bank of San Francisco. Assume that it normally takes six days to collect a check drawn upon a California bank which is presented in New York. The Federal Reserve System has a carefully worked-out schedule which will frequently give the bank presenting the check credit before the Federal reserve bank receives payment. This difference in favor of the bank presenting the check is known as the "Federal reserve float." The Federal reserve float does not include all checks in the process of collection but only those which remain uncollected after the Federal reserve banks have given credit to the member banks.

When a check is presented to a Federal reserve bank, it appears on its balance sheet as an asset known as an "uncollected item" and also as a liability known as a "deferred-availability item." It is a liability because the reserve bank has agreed to pay the bank which presents the check at a later date, the time being determined by the previously mentioned schedule. The Federal reserve float, therefore, is the excess of the uncollected items over the deferred-availability items. This excess exists because, in our previous example, the Federal Reserve Bank of New York will give the Chase National Bank credit after five days, whereas it will take six days to collect the check. As a result of this check, the Federal Reserve Bank of New York has an uncollected item running for six days and a deferred-availability item running for only five days.

Par-Collection System. Were the Federal reserve banks to act as a collection agency for all the banks in the United States or just for the member banks? The intent of the act seems to have been that they were to serve all banks, but a difficulty arose in the process of clearing checks which had not been anticipated. A number of the nonmember banks insisted on making a remittance

[1] Under the old national banking system a bank might count a check in the process of collection as part of its legal reserve.

charge on checks presented to them by the Federal reserve banks. Since the nonmember banks did not carry accounts with the Federal reserve banks, this charge was to cover the expense of remitting the funds to the reserve banks.[1] The Federal reserve banks, naturally, did not favor such a system, since it was impossible for them to know just how much would be deducted by the nonmember banks for the remittance charge. They appealed to all banks to remit to them at par for any checks which were collected through the Federal Reserve System, but such a voluntary scheme was unsuccessful. Consequently a drive was started about 1917 by the Federal reserve banks to force all banks to join what was known as a par-collection system. Every member bank must be a member of this system, and nonmember banks might join if they would agree to remit to the reserve banks at par. In order to get the nonmember banks to join the par-collection system, the Federal reserve banks initiated the practice of presenting all checks at the counter of nonmember banks which had been making remittance charges. This presentation of checks at the counter obliged the drawee banks to pay at par in cash. The Federal reserve banks could do this by establishing agents in the various towns and sending these checks to the agents, who in turn would present them at the counter. In addition some of the Federal reserve banks would wait until a number of checks had accumulated and then present them all at once. This, of course, would embarrass somewhat the drawee banks.

A considerable legal controversy grew out of these practices, which extended over a number of years.[2] The case which has received more publicity than any other in the par-collection litiga-

[1] There are two types of charges involved in the collection of checks, which should be differentiated. One is an exchange, or collection, charge, which is made by the bank taking the check for collection. This is to cover, primarily, the clerical expenses involved. Then there is a remittance charge, which is made by the bank drawn upon to cover the expenses of remitting to the bank which originally accepted the check for collection. It is this latter charge which was the subject of the controversy that arose between the reserve banks and the nonmember banks.

[2] For a complete discussion of this legal controversy see C. S. Tippetts, *State Banks and the Federal Reserve System*, Chaps. XIII, XIV.

tion is the Atlanta case. In 1920 a number of Georgia banks asked for an injunction against the Federal Reserve Bank of Atlanta to restrain it from collecting checks drawn upon the plaintiff banks in any other manner than through the mails. This would prevent the reserve bank from presenting checks at the counter, and likewise it would allow the plaintiff banks to deduct a remittance charge, since they would remit by a draft drawn upon a correspondent bank. The county court of Georgia issued the injunction as requested. The Federal Reserve Bank of Atlanta then secured the removal of the case to the United States District Court. The Federal court ruled that the case did not present cause for action, and it was dismissed. The plaintiffs then appealed the case to the United States Circuit Court of Appeals, and the decree of the lower Federal court was affirmed. Then the state banks appealed to the United States Supreme Court, and it affirmed on May 16, 1921, the jurisdiction of the Federal courts, but the decisions of these courts were reversed, and the case was ordered back to them for retrial on its merits. This pleased the plaintiff banks, but on March 11, 1922, the United States District Court held that the Federal Reserve Bank of Atlanta had violated no rights of the plaintiff banks in presenting checks at their counters, and the Atlanta bank was cleared of the charge of using coercive methods. This decision was upheld by the United States Supreme Court.

Without tracing the controversy and litigation farther through several other important cases a summary of how the problem was settled will be given. The Federal reserve banks soon realized that their methods were creating a great deal of ill will, and that it would be better for them to discontinue the practices. The courts, in general, however, had held that the reserve banks did have a right to present the checks at the counter, if they so desired. A compromise resulted which provided that any nonmember bank might join the par-collection system if it would agree to remit to the Federal reserve banks at par. This remittance might take the form of drafts drawn upon banks which were members of the Federal Reserve System, or it might be handled by special accounts which nonmember banks might keep with the Federal reserve banks expressly for the purpose of check clearance. The

Hardwick amendment, passed in 1917, made it impossible for banks to make exchange charges against the Federal reserve banks. They could, however, continue to make charges against one another.

At the present time the Federal reserve banks will not accept any checks for collection which are drawn upon banks that are not members of the par-collection system. The par-collection system, however, has a wide membership. In the Boston, New York, and Philadelphia districts all the banks belong, and probably over 90 per cent of all checks drawn in the United States against out-of-town banks are drawn on banks which are members of the par-collection system. However, in point of numbers there are still many banks which do not belong to the system. At the close of 1933, of the 16,372 banks[1] in existence 13,677, or 83 per cent, belonged to the system, but 2695 banks did not; this necessitates two types of check-clearing systems in the United States, which, to say the least, makes for complexity. The nonmember banks use the same system that was used by all banks before the establishment of the Federal Reserve System.

Fiscal Operations for the Government. The Federal reserve banks serve as the principal fiscal agents of the government. The last independent-treasury vault was closed in 1921, and the reserve banks, along with commercial banks, act as government depositories. The reserve banks aid the government in collecting and disbursing its funds and in transferring funds from one section of the country to another. They are especially helpful to the government in borrowing money through the sale of bonds. Each Federal reserve bank has a special bond department which handles the purchases and sales for that district.

Since the government took over all the monetary gold in the United States, the Federal reserve banks act as the medium through which the government converts this gold into purchasing power. When the government took over the gold from the Federal reserve banks, it paid them by issuing to them gold certificates in large denominations which could not be generally circulated. The reserve banks, therefore, at the present time are holding gold

[1] Including banks not licensed following the bank holiday.

certificates in the place of actual gold. The government profited to the extent of some $3,000,000,000 when it devalued the dollar approximately 41 per cent in January, 1934. It cannot spend this profit, however, by using the gold; so it has to issue gold certificates to the Federal reserve banks against the gold which it is holding. The Federal reserve banks credit the government deposit account to the extent of the gold certificates which the Treasury issues to them. The government is then free to check upon this account.

The government was given the power to nationalize gold in this manner by the Gold Reserve Act of January, 1934. Since that date nearly $2,000,000,000 of additional gold has been imported into the United States, until the total gold stock in this country is almost $9,000,000,000 (at the new price of $35 an ounce). Even at the old price of $20.67 an ounce it would be the largest amount of gold ever held in the United States.[1]

[1] All references on the Federal Reserve System are given at the end of Chapter XXVI.

CHAPTER XXVI

CREDIT POLICIES OF THE FEDERAL RESERVE SYSTEM

Under the modern banking system, if there is to be any centralized means of control, the control of credit is the important factor. In the United States the majority of our transactions are carried on by means of checks and bank deposits rather than by cash. In describing the specific duties of a central bank (see page 507) little was said about the control of credit as being one of its duties. Perhaps this should have been more fully discussed at that point; but, since it is so indefinite and likewise so important, only the more specific duties were enumerated, a fuller discussion being left to a separate chapter. It may be that all the duties of a central bank could be included under the one main heading of credit control. But just what the central bank would do to bring about proper credit control would still be a matter of some conjecture. Let us assume for the time being that the primary function of the Federal Reserve System is to control the volume or quality of outstanding bank credit. What are the symptoms which would indicate that the Federal Reserve System has or has not exercised the proper control? In order to know how successful a central banking system is in controlling credit one must first set up some objective to be used as a guide.

Objectives of Credit Control. Owing to the inequality which price changes bring about between debtors and creditors many have felt that the principal objective of credit control should be price stabilization. Still others, however, have contended that the movement of prices is much less important than the movement of general business activities and, more particularly, the volume of employment. In addition to these objectives there are a number of others, such as the maintenance of a stable money market

and the elimination of seasonal monetary disturbances, which have been put forth as the guides that should be used by the Federal Reserve System in effecting credit control. A discussion of a number of these objectives follows.

Price Stabilization. There is nothing in the Federal Reserve Act which states that the Federal Reserve System shall use price stabilization as its chief objective of credit control. The act states merely that the rates of discount shall be set with a view to accommodate commerce and business. There have been a number of attempts, however, to amend the act so that price stabilization would be included as a definite objective. The first proposals of this character were embodied in the two Strong Bills, on which hearings were held before the Banking and Currency Committee of the House of Representatives in 1926, 1927, and 1928. These bills were partially, at least, an outgrowth of the activities of the Stable Money Association, which was organized primarily through the efforts of Professor Irving Fisher, who has always been a strong advocate of price stabilization. In addition to professional economists a number of leading bankers and businessmen were members of the Stable Money Association.

The first Strong Bill was brief and very much to the point. It provided that the Federal Reserve Banks should

> Establish from time to time, subject to review and determination of the Federal Reserve Board, a rate of discount to be charged by such banks for each class of paper, which shall be made with a view to accommodating commerce and promoting a stable price level for commodities in general. All of the powers of the Federal Reserve System shall be used for promoting stability in the price level.[1]

Some of the chief opponents of this bill were officials of the Federal Reserve System and included W. W. Stewart, formerly head of the Division of Research and Statistics of the Federal Reserve Board, A. C. Miller, a member of the Federal Reserve Board, and Governor Benjamin Strong of the Federal Reserve Bank of New York.

After extended hearings a number of changes were made in the

[1] Sixty-ninth Congress, first session, H. R. 7895.

original form of the Strong Bill, but even with these amendments it failed to pass Congress. A second Strong Bill met a similar fate. In 1932 the House of Representatives did pass by a vote of 289 to 60 the Goldsborough Bill. The principal provisions of this bill were as follows:

SEC. 31. It is hereby declared to be the policy of the United States that the average purchasing power of the dollar as ascertained by the Department of Labor in the wholesale commodity markets for the period covering the years 1921 to 1929, inclusive, shall be restored and maintained by the control of the volume of credit and currency.

SEC. 2. The Federal Reserve Board, the Federal Reserve Banks, and the Secretary of the Treasury are hereby charged with the duty of making effective this policy.

SEC. 3. Acts and parts of Acts inconsistent with the terms of the Act are hereby repealed.[1]

This bill, however, failed to pass the Senate and therefore did not become law. One of the principal differences between this bill and the previous ones was that it specified the use of the Department of Labor wholesale-commodity-price index rather than the less definite "price level" statement of the Strong Bills. Another difference was that it selected a definite level to which prices should be raised, the average of the level during 1921–1929.

Even after a definite policy of price stabilization has been decided upon, there still remains the very perplexing problem of selecting the type of price index which is to be used. In general there are three types of price indices: measurements of wholesale commodity prices, indices of the general price level, and cost-of-living indices.[2]

Probably the best-known price index is the index of wholesale commodities prepared by the United States Bureau of Labor Statistics. This index includes some eight hundred commodities and is the most inclusive commodity index in the United States. That it is so well known is no doubt the main reason why it has

[1] Seventy-second Congress, first session, H. R. 10,517.

[2] Perhaps a fourth type of index should be added to make the list more nearly complete, an index of retail prices. There would be, however, a certain amount of overlapping between this index and the index of the cost of living.

been suggested, rather than some other type of index, as a guide for price stabilization. There are a number of disadvantages in using any wholesale-commodity-price index. First of all, if one is interested primarily in bringing about justice between debtors and creditors, general purchasing power rather than purchasing power expressed in terms of commodities at wholesale is the most important consideration. After all, the average person does not deal directly in commodities at wholesale. In addition to commodities at retail, purchasing power is to be thought of in connection with all items for which money is spent. This would include such items as rent, taxes, and services of all kinds.

In order to get away from this difficulty, which arises from the use of a wholesale-commodity-price index as a guide to stabilization policy, an index of the general price level has been suggested. Probably the best-known index of this kind in the United States is the index of the general price level as compiled by Carl Snyder of the Federal Reserve Bank of New York. This index, as it has been revised,[1] is made up of the following twelve price groups. The weight given each group is likewise included.

	Weight
1. Industrial commodity prices at wholesale	10
2. Farm prices at the farm	10
3. Retail food prices	10
4. Rents	5
5. Other cost-of-living expenses	10
6. Transportation cost	5
7. Realty values	10
8. Security prices	10
9. Equipment and machinery prices	10
10. Hardware prices	3
11. Automobile prices	2
12. Composite wages	15
	100

As soon, however, as all items for which money is spent are put into a composite index difficulties immediately arise. For example, if one wishes to measure all prices, security prices must be in-

[1] See Snyder's article in the *Review of Economic Statistics*, February, 1928, pp. 40–52.

cluded; but once security prices are included, along with wages, rents, real-estate prices, freight rates, commodity prices, etc., one is immediately faced with the task of showing the importance of the various items in making up the total index, and one can never be certain, using Snyder's index as an example, that rents are only half as important as security prices in the making of a general-price-level index. This difficulty has made the compilation of satisfactory indices of the general price level almost impossible.

The third type of index which may be used as a guide to price-stabilization policy is an index of the cost of living or an index of retail prices. This type has the advantage of showing any change in the purchasing power of the average consumer. Here again, however, as in the case of the general price level, a number of technical difficulties arise in the collection of comparable prices of consumption goods. Technological improvements are constantly taking place in the production of manufactured goods, although a good many continue to be called by the same name. For example, if you include the price of automobile tires in a cost-of-living index, you will find that the tire of 1934, although costing no more than the same tire in 1913, or perhaps even less, is several times more durable. In your cost-of-living index, therefore, should you take account of this technological improvement? Another difficulty with the use of a cost-of-living index as a guide to price-stabilization policy is that the standard of living varies from generation to generation, and the things which should be included in a cost-of-living index of one generation may vary greatly from the things which should be included in a cost-of-living index of another generation.

There seems to be no doubt, then, that the index of commodity prices at wholesale is the most accurate price index, and yet, as we have pointed out earlier, commodity prices at wholesale are not of primary interest to the price stabilizationist who wishes to maintain equality between debtor and creditor. If it were not for the technical difficulties involved, an index of general prices or an index of the cost of living would no doubt be more useful than an index of wholesale commodity prices. An index of general prices does not reflect cyclical fluctuations as clearly as the other indices,

and it is the cyclical fluctuations which we wish to control. Retail and cost-of-living indices may move too slowly to be useful as guides to credit-control policy. So the choice seems to be not between something which is satisfactory and something which is unsatisfactory, but rather among indices all of which possess certain disadvantages. Perhaps no one index should be used exclusively at all times but rather that particular index which seems to fit best the needs of the moment.

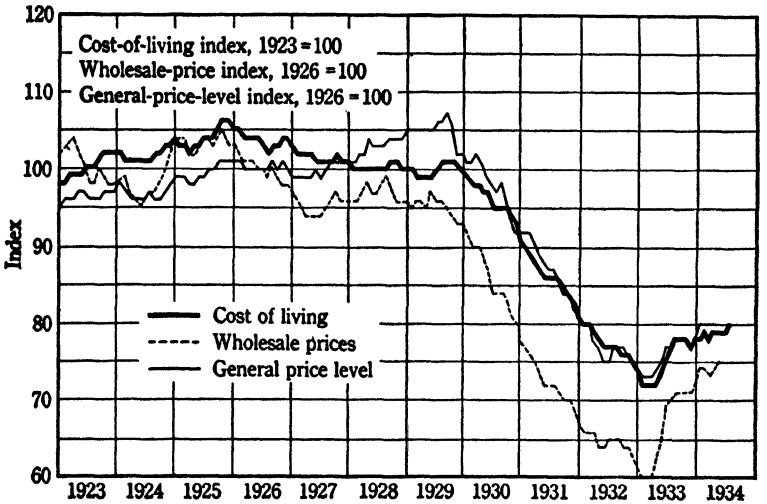
The chart on page 571, which gives the movements of the three principal price indices between 1923 and 1934, will serve to show that the discussion of the differences in price indices is more than academic. It can be seen from this chart that the trend of the general price level between 1922 and 1929 was upward, while the trend of wholesale prices was slightly downward. Between these two movements was that of the cost of living, which shows almost a horizontal trend between 1922 and 1929. As one would expect, the fluctuations of the wholesale-price index are greater than those of the other indices. The depression period, 1929–1933, is no exception; the index of wholesale prices fell faster and reached lower levels than either the general price index or the cost-of-living index.

The question still remains as to whether one should attempt to stabilize prices in any form. Before answering this question let us present other guides which may be used by the Federal Reserve System in its credit-control policy.

Stabilization of Business Activity. Some writers have felt that price stabilization was not nearly so important as stabilization of business activity or, more specifically, the stabilization of employment. This view of credit control, of course, does not have primarily in mind the maintenance of justice between debtor and creditor, but rather that a constant volume of business activity is to be desired instead of fixed or at least narrowly fluctuating prices. Proponents of this view hold that, since there are periods when prices are slowly falling owing to technological changes, it would be undesirable to initiate measures to prevent prices from falling during a period when business might be operating on a very even basis.

One of the difficulties in using business activity as a guide to

central banking policy is that, although one might have the same volume of employment, the wages of the workers might, in case of slowly rising prices, buy smaller and smaller amounts, and the reverse might be true in periods of slowly falling prices. The use of business activity rather than price stabilization as a guide like-



INDICES OF COST OF LIVING, WHOLESALE PRICES, AND GENERAL PRICE LEVEL, 1923–1934

Sources: Cost of Living (National Industrial Conference Board), Wholesale Prices (*Federal Reserve Board Bulletin*), General Price Level (Standard Statistics)

wise would not prevent inequalities from arising between debtors and creditors over long periods of time.

Neutral-Money Policy. One of the most recent suggestions for a guide to central banking policy has been that of neutral money. Many European economists especially have opposed stabilization of purchasing power and have favored a neutral-money policy. Proponents of this view would have a currency system in which money was a passive factor, having little or no influence upon commodity prices. If this policy were followed by the central banking authorities, all nonmonetary influences upon prices would be allowed to run their course. An excellent summary of a neutral-

money policy is given by Professor Alexander Mahr in his pamphlet *Monetary Stability*.

Now if we follow the idea of neutral money to its last consequences we find that it is a question of not changing the supply of money whatever may happen on the side of the commodities. If there is, owing to a decreased supply of goods, a tendency toward a rise of average prices, no counteracting decrease in the supply of money must take place, as would be necessary under a system of stable purchasing power. Likewise, if the supply of goods increases for some reason or other, neutrality of money requires that no action be taken to prevent a fall in prices. Hence neutral money simply means a constant total supply of money. The expression "total supply of money" is here used in default of a better one to denote the quantity of circulating media multiplied by their velocity of circulation (turnover). It is obvious that 1,000,000 dollars changing hands twenty times a year buy the same aggregate value of goods as 2,000,000 dollars which change hands only ten times. Hence the aggregate amount of notes, commercial bills, checks, and other means of payment would have to be diminished under a system of neutral money as soon as their velocity of circulation had increased, and vice versa in the case of a decreased velocity of circulation.

But here an insuperable difficulty arises. It is entirely impossible to determine the exact amount of all checks, bills of exchange, and other substitutes for money circulating during a given period of time; and it appears to be a hopeless task to measure the velocity of circulation of all these different instruments of payment with any accuracy. Accuracy, however, is absolutely necessary here. For if, on account of wrong estimates as to the velocity of circulation, the quantity of money is increased too much, an inflationary upward movement will be started; if the quantity is decreased too much, a business depression will ensue. Even errors of a few per cent as to the required volume of money and credit may have such consequences.

This is in itself sufficient to render the policy of neutral money incapable of practical application. Moreover, one may ask whether a monetary system which puts a brake upon economic growth is desirable in principle. For if the total supply of money is kept constant any expansion of production will lead to a fall in prices, and this will either prevent or retard further expansion.[1]

[1] Public Policy Pamphlet No. 9, University of Chicago Press. A more complete discussion of neutral money may be found in Hayek, *Prices and Production*.

Professor Goldschmidt, a German economist, gives a different definition of neutral money, thus:

> Neutral money, correctly defined, means a money economy which behaves like a barter economy in equilibrium. It does not imply a constant volume of money or credit nor — and still less so — a policy of satisfying every so-called legitimate demand for credit coming from business. It implies, however, avoiding the creation of additional purchasing power not accompanied by additional production, as well as counteracting hoarding or dishoarding movements.[1]

Other Objectives. There are a number of other objectives of credit-control policy which have been suggested. Most of these have not been put forth as major guides but rather as minor objectives. Among them are

1. Stabilization of the money market.
2. Elimination of seasonal disturbances.
3. Aid to United States Treasury financing.
4. Assistance to foreign countries.
5. Maintenance of reserves.

The Federal Reserve System and especially the Federal Reserve Bank of New York have always felt some responsibility for maintaining a stable money market. One of the most disturbing factors in the money market is gold movements. There have been times when tremendous amounts of gold have left this country in a very short period.[2] If nothing were done to counteract the influence of the movement of gold out of this country, severe strain might be placed upon the money market and interest rates might soar to great heights. There are two means by which the Federal reserve banks may counteract the stress which otherwise might result from a gold outflow. They may extend credit to the member banks by rediscounting their commercial paper, or they may purchase United States securities in the open market. The latter means, which can be initiated by the reserve banks, has been the more effective in stabilizing the money market.

[1] R. W. Goldschmidt, *The Changing Structure of American Banking*, pp. 247–248. George Routledge and Sons.

[2] Probably the best examples are the fall of 1931 and early summer of 1932.

Before the establishment of the Federal Reserve System a great deal of criticism was levied against our banking system because of its failure to meet seasonal needs adequately. Our most important seasonal need was that of financing the moving of our principal agricultural crops during the fall. The reserve banks have satisfied this seasonal demand through the issuance of additional Federal reserve notes and through their discount and open-market operations. The ease with which the Federal reserve banks can affect the total volume of money in circulation through the issuance of Federal reserve notes was discussed in Chapter XXIV. The discount market furnished by the Federal reserve banks has likewise aided the member banks in meeting seasonal demands.

Another objective of Federal reserve control is to serve as an aid to Treasury financing. The use of this policy by the Federal Reserve System was severely criticized during the period when the government was raising large sums to finance the World War. A more detailed explanation of the part played by the Federal Reserve System in aiding the Treasury will be discussed later in this chapter when the credit control policy of the Federal Reserve System between 1917 and 1919 is analyzed.

When Benjamin Strong was governor of the Federal Reserve Bank of New York he co-operated with foreign countries in bringing their monetary systems back to a gold basis. This was especially true in the case of England when it returned to a gold standard in 1925. For these activities Governor Strong was criticized most severely from some quarters on the basis that he was paying too much attention to the monetary affairs of foreign countries and not enough to those of his own country. Before England set a date for her return to the gold basis, she negotiated for a $200,000,000 loan from our reserve banks.

Early in the history of the Federal Reserve System a great deal was said about the maintenance of adequate reserves as a guide to Federal reserve policy. Since the reserve banks were to be the sole guardian of the reserves of the member banks, it was hoped that they would always hold themselves in readiness to aid the member banks in times of stress. On this basis some writers believe that the reserve authorities should watch the reserve ratio (the ratio

of gold certificates and lawful money to deposits and note issues) in order to make sure that it is kept above the legal minimum. In recent years, however, less and less attention has been paid to the reserve ratio as a guide to Federal reserve policy. This may have been due to the fact, however, that since the war the gold inflow experienced by the United States has except for short periods kept the Federal reserve ratio far above its legal minimum.[1]

Quantitative versus Qualitative Control. If it be assumed again that credit control is desirable, there still remains the question of determining whether or not the quantity or the quality of credit is the important consideration. Among the Federal reserve authorities themselves there has been a difference of opinion on this subject. In general the Federal Reserve Board maintained that the quality of credit is of prime importance, while the officials of the Federal reserve banks, notably of the New York reserve bank, held that it is not possible to extend credit control beyond the limitations of volume. The two groups have put forth their views with such emphasis that one frequently hears of the New York view of credit control, meaning the quantitative view, and the Washington view of credit control, meaning the qualitative view. Mr. Adolph C. Miller, a member of the Federal Reserve Board since its inception, has been the leader for the qualitative school, while Mr. Benjamin Strong, now deceased but governor of the Federal Reserve Bank of New York for a number of years, was the chief proponent of the quantitative view.

Followers of the quantitative school have not denied the desirability of considering the use to which a member bank puts its funds, but they have held that it is next to impossible to determine what use will be made of Federal reserve funds extended to the

[1] The law requires that the Federal reserve banks keep a 35 per cent reserve in the form of gold or lawful money against deposits and at least a 40 per cent gold reserve against Federal reserve notes. When speaking of a combined reserve ratio it is not possible to calculate the lowest point to which it could go and still keep within the law, but it would be in the neighborhood of from 35 to 40 per cent. The lowest point to which this ratio has ever gone was 40.6 per cent in March, 1920. Since 1934 gold certificates have been substituted for the gold specified by the reserve requirements.

member banks. Governor Strong explained this difficulty as follows:

> Suppose bank "A" on a certain day makes a loan of $100,000 on Pennsylvania Railroad stock, also buys $100,000 of foreign exchange, also buys $100,000 of banker's bills representing a movement of commodities, and buys $100,000 of government bonds, and sustains net loss of $100,000 of deposits. There is $500,000 of funds that it has paid out. It has $300,000 of its loans repaid. That leaves it still $200,000 short in its reserve, and it must borrow it from us.... Shall we say that the $200,000 borrowed from us was used for buying Pennsylvania Railroad stock or buying government bonds or buying foreign exchange or buying banker's bills representing movement of commodities or to make good a loss of $100,000 of deposits? There is no way of telling. It is all in the way you look at it.[1]

The quantitative school has likewise been quick to point out that if credit is not extended in too great a volume, the quality will automatically take care of itself.

Just which method would have been more effective in controlling the speculative activity during the late 1920's will always be open to question. Each school was in the "driver's seat" for a period. In general the followers of the quantitative view had their way during 1928 but gave way to the qualitative proposals which were introduced during 1929. The two warnings which were issued by the Federal Reserve Board during the first part of 1929 were in keeping with the qualitative view. The board was desirous of preventing the extension of further credit to member banks which were making security loans. In its warning of February 7, 1929, it said in part:

> The Federal Reserve Board neither assumes the right nor has it any disposition to set itself up as an arbiter of security speculation or values. It is, however, its business to see to it that the Federal Reserve Banks function as effectively as conditions will permit. When it finds that conditions are arising which obstruct Federal Reserve Banks in the effective discharge of their function of so managing the credit facilities of the

[1] Sixty-ninth Congress, first session. Stabilization Hearing on H. R. 7895 before the Committee on Banking and Currency, Part I, pp. 340–341.

Federal Reserve System as to accommodate commerce and business, it is its duty to enquire into them and to take such measures as may be deemed suitable and effective in the circumstances to correct them; which, in the immediate situation, means to restrain the use, either directly or indirectly, of Federal Reserve credit facilities in aid of the growth of speculative credit.

It is assumed from this statement that the security markets absorb credit which otherwise would be used by commerce and business. Many writers on this subject have not been willing to concede this point. They have held that the stock market serves merely as an intermediary agency in directing the funds back to industry. This view has been more widely held among European economists than among American economists, but it is now becoming more widely accepted by the latter. Professor Gustav Cassel, the Swedish economist, has been most emphatic in the view that the security markets do not absorb credit.[1]

The Effectiveness of the Powers Possessed by the Federal Reserve System in Controlling Credit. After deciding on the particular type of credit control by a central bank which is desirable, the question immediately arises as to whether or not our Federal Reserve System possesses sufficient power to bring about this control. Even though the Federal reserve authorities may know exactly what they wish to accomplish, they may be hampered by lack of power or by specific prohibitions against doing certain things.

In general our Federal Reserve System may use four means of bringing about credit control: (1) the rediscount rate, (2) open-market operations, (3) moral suasion, and (4) flat refusal to aid member banks. These methods will be discussed in turn.

The Rediscount Rate. The process of rediscounting has been described in the previous chapter. The question of importance here is whether or not the Federal reserve banks can change the

[1] Professor Harold L. Reed of Cornell and Professor James H. Rogers of Yale have been the leading American economists to oppose the contention that, in itself, speculative activity absorbs funds which otherwise would be used by industry. A more complete discussion of this issue is presented on pages 612–616.

rediscount rate in such a way that it will effectively encourage or discourage rediscounting by the member banks. For example, when the Federal reserve banks feel that member-bank expansion has gone far enough, and they wish to prevent further expansion and perhaps even bring about contraction, they may raise the rediscount rate so that Federal reserve credit becomes more costly to the member banks. One handicap of this method of preventing bank expansion is that there are limits beyond which the reserve banks dare not go in their rediscount-rate increases. These limits are not set by law, for there is nothing in the act which would prevent rediscount-rate increases to any level; they are set by what is considered "reasonable and fair." The Federal Reserve System is at least a quasi-public institution, and for that reason it cannot go too far beyond the limits set by public opinion. Many writers have felt that it would be very impractical for the system to set a rediscount rate above 7 per cent. Even 7 per cent has seemed too high to some commentators. Only once in the history of the system has there been a 7 per cent rate, during the postwar expansion period in 1920. Many of the state usury laws will not permit an interest rate above 6 per cent, and as a consequence we have come to look upon 6 per cent as a maximum rate of fairness.

The effectiveness of the rediscount rate in preventing bank expansion is also tempered by the fact that the member banks do not have to borrow from the reserve banks to the extent of the loans which they grant. To illustrate: If a member bank now has the minimum legal reserve required and it wishes to grant another loan of say $10,000, which will probably increase its deposits by $10,000, it will be necessary for it to increase its reserve at the Federal reserve bank by only $1000.[1] If the member bank then receives 6 per cent on the $10,000 loan and has to borrow from the reserve bank only $1000 in order to replenish its reserves, the amount of the rediscount rate is of little consequence. On this basis it might seem that even a rediscount rate of 10 or 12 per cent

[1] If this analysis is not always true for the individual bank, it is always true for the system as a whole. So long as all banks are expanding together, an individual bank will not face an unfavorable clearinghouse balance because of a new loan.

would be ineffective in preventing member-bank-loan expansion, but such is probably not the case in the American system, which traditionally keeps the rediscount rate below the rate paid by commercial borrowers.

Federal reserve policy during 1933 and 1934 gave us some indication as to the effectiveness of low rediscount rates in stimulating loan expansion. During these two years the rediscount rate of the Federal Reserve Bank of New York was as low as 1½ per cent most of the time. In other districts it averaged between 2 and 3 per cent. In spite of these low rates the volume of rediscounting continued at unprecedentedly low levels.

The impression that the height of the rediscount rate has nothing to do with the volume of rediscounting would be as inaccurate as the impression that it entirely controls the volume of rediscounting. During periods of rapidly expanding member-bank credit, such as 1920, increases in the rediscount rate may be very effective in controlling credit expansion.

Open-Market Operations. The Federal reserve banks can affect the volume of member-bank expansion more directly through their open-market operations than by rediscounting. This is true because the reserve banks can encourage or discourage member-bank rediscounting only by manipulating the rediscount rate. In the case of open-market operations, however, they can directly *initiate* and carry through their program in such a way that potential member-bank expansion is affected.

There have been a number of cases in Federal reserve history where the desired results of the open-market-operations policy have been counteracted by opposite changes in rediscounting. For example, if the member banks were indebted through rediscounting to the reserve banks to the extent of a billion dollars, and if the reserve banks decided to purchase United States securities on the open market, the total net result might be that, to the extent that United States securities were purchased, the indebtedness of the member banks at the reserve banks would be reduced. The total volume of Federal reserve credit outstanding, therefore, would remain the same. Naturally, if the member banks receive funds from the reserve banks as the result of selling United States

securities to them or to their customers and find at the same time that they are indebted to the reserve banks, they will be likely to use these funds to reduce their indebtedness. When the Federal reserve banks began to purchase securities on the open market in large volume in the spring of 1932, they found that member banks were using the funds to reduce their rediscount indebtedness, and that, until rediscounts reached a very low level, they were not able to inject more Federal reserve credit into the hands of the member banks.

As has previously been stated, the framers of the act no doubt felt that the open-market operations of the Federal reserve banks would supplement their rediscounting operations, in which case the trouble due to one power's counteracting another would not occur. As measured by volume alone, however, open-market operations have been just as important as rediscounting, or even more important, since 1921. This has clearly been the case since 1931.

Moral Suasion. The Federal reserve banks, in addition to exercising explicit powers to effect credit control, may likewise appeal to the member banks on the basis of moral responsibility. Probably the first important use of this method was made in 1929, when the Federal Reserve Board issued two warnings to the member banks. In the first it said in part:

> During the last year or more . . . the functioning of the Federal Reserve system has encountered interference by reason of the excessive amount of the country's credit absorbed in speculative security loans. The credit situation since the opening of the new year indicates that some of the factors which occasioned untoward developments during the year 1928 are still at work. The volume of speculative credit is still growing. . . . When it [the Federal Reserve Board] finds that conditions are arising which obstruct Federal Reserve banks in the effective discharge of their function of so managing the credit facilities of the Federal Reserve system as to accommodate commerce and business, it is its duty to enquire into them and to take such measures as may be deemed suitable and effective in the circumstances to correct them.

Again, in April of the same year, it issued a similar warning. After both these warnings the security exchanges reacted, but soon continued on their upward surge again.

Flat Refusal. Whether or not the Federal reserve banks have the right flatly to refuse to rediscount eligible paper for member banks has always been a much-mooted question. Nothing has ever been made public which would indicate that the reserve authorities have at times flatly refused to extend their credit to member banks. No doubt some cases have existed. Several of the reserve banks established in 1919 and 1920 what they referred to as "basic lines." These basic lines in general were determined by first ascertaining the total volume of reserve credit which a reserve bank could issue, and then apportioning the total sum among the various member banks of the district in proportion to their assets. On the assumption, then, that every member bank borrows from the reserve bank to the extent of its basic line, the reserve bank of the district would not be able to extend any further amount of credit. Rediscounts during 1920 reached an all-time high of approximately $2,800,000,000. Since 1921 rediscounts have seldom gone above $1,000,000,000, so that the problem of rationing the total volume of reserve credit has been less pressing. Even in their attempts to curb speculative activity in 1928 and 1929, so far as is known the reserve banks did not refuse to rediscount eligible paper for banks which were lending money on the security exchanges. This is the method of "direct pressure."

In addition to rate increases the reserve banks have another method of discouraging rediscounting. This is the policy of requiring additional collateral. In a previous chapter it was pointed out that there have been cases when the reserve banks have required as high as 174 per cent eligible-paper collateral against the borrowings of member banks.

In the Bank Act of 1933 there is the following provision, which gives the board the power to refuse to extend credit to a member bank that is using its facilities to finance speculation:

> SEC. 3 (*a*). Whenever, in the judgment of the Federal Reserve Board, any member bank is making such undue use of bank credit, the Board may, at its discretion, after reasonable notice and an opportunity for hearing, suspend such bank from the use of the credit facilities of the Federal Reserve System, and may terminate such suspension or may renew it from time to time.

It will be noted, however, that even in this provision, the board "may" refuse to extend credit rather than "must" refuse.

Periods of Credit Control. It is not possible to discuss Federal reserve policy since 1914 as a unit. Owing to changes in the personnel of the Federal Reserve Board and changes in the administration of the Federal reserve banks, policies at one time have almost diametrically opposed policies at another. Sometimes, even without changes in personnel, the Federal reserve authorities have pursued different policies at different times. Therefore an attempt is here made to segregate periods of Federal reserve policy according to the principal characteristics of the problems confronting the Federal reserve authorities. The following periods have been selected:

1. 1914–1917: getting under way.
2. 1917–1920: aiding the government in financing the war.
3. 1920–1922: gold inflow and the contraction of Federal reserve credit.
4. 1923–1926: less active Federal reserve policy.
5. 1927: easing the money market.
6. 1928–1929: the attempt to curb speculative activity.
7. 1930–1934: the attempt to stop bank contraction and force expansion.

These periods will be discussed in order.

1914–1917: Getting under Way. There is very little that may be said about Federal reserve policy between 1914 and 1917, because only problems dealing with routine matters arose. The member banks were not required to deposit their entire reserve with the Federal reserve banks until 1917, and the volume of rediscounting during this period was almost negligible. Open-market operations were not in use to any great extent, and the Federal reserve banks busied themselves mostly with routine matters of check clearance and note issue. The reserve banks' earning assets were so low during this period that they found it difficult to pay the 6 per cent dividend on their stock which was held by the member banks.

1917–1920: Aiding the Government in Financing the War. Upon our entrance into the World War we were faced with the

problem of not only financing our own armies but helping to finance the armies of the Allied nations. This meant raising large sums of money in a very short time. The Liberty Loan drives of this period and the "Borrow and Buy" policy are a familiar story. The loans of member banks increased from $9,370,000,000 in 1917 to $19,852,000,000 in 1920.[1] Even after the close of the war the government continued to borrow money and banks continued to expand their loans and investments. The question arose in 1919 as to whether Federal reserve banks should not step up their rediscount rates high enough to discourage member-bank rediscounting; but, since the government was continuing to borrow money, it wished interest rates to remain as low as possible. The influence of the Secretary of the Treasury on Federal reserve policy was probably greater than it had ever been before or than it was in any subsequent year up to 1934.[2]

Should the reserve authorities have raised the rediscount rate earlier in 1919 or even in 1918 and prevented credit expansion from going as far as it did, or should they have kept interest rates down in order to make it easy and cheap for the government to raise funds? In general the latter policy was followed. Increases in the rediscount rate, beginning in November, 1919, were finally made, until a rate of 7 per cent was reached in 1920, but supposedly the expansion had already gone too far.

1920–1922: Gold Inflow and the Contraction of Federal Reserve Credit. During the latter part of 1920 and through all of 1921 commodity prices fell drastically, and member-bank loans and investments fell from about $25,796,000,000 to approximately $23,482,000,000 in 1921. Even while this was going on, tremendous amounts of gold were flowing into this country. For the three-year period 1920–1922 slightly more than $1,000,000,000 in gold came into this country. This gold was used by the member banks for the purpose, principally, of reducing their indebtedness at the reserve banks. Rediscounts fell from a high of approximately

[1] It should be pointed out that this was due in part to the fact that more banks joined the Federal Reserve System.

[2] Only time will tell whether the present (1934) powers of the Secretary of the Treasury are of an emergency or permanent nature.

$2,800,000,000 in 1920 to approximately $900,000,000 at the close of 1921, a very substantial decline.

1923–1926: Less Active Federal Reserve Policy. Very little happened during the period 1923–1926 to occupy the immediate attention of the Federal reserve authorities. They were, however, beginning to crystallize their attitude on credit control. Probably the most concise statement which has ever been issued by the Federal Reserve Board was issued in 1923. This statement is so clear that a portion of it follows:

> Particular prominence has been given in discussions of new proposals to the suggestion frequently made that the credit issuing from the Federal reserve banks should be regulated with immediate reference to the price level, particularly in such manner as to avoid fluctuations of general prices. Entirely apart from the difficult administrative problems that would arise in connection with the adoption of the price index as a guide and entirely apart from the serious political difficulties which would attend a system of credit administration based on prices, there is no reason for believing that the results attained would be as satisfactory as can be reached by other means economically valid and administratively practicable. In saying this the board is not unmindful of the abundant evidence recent years have given of the economic and business disturbances occasioned by violent fluctuations of prices. But it must not be overlooked that price fluctuations proceed from a great variety of causes, most of which lie outside the range of influence of the credit system. No credit system could undertake to perform the function of regulating credit by reference to prices without failing in the endeavor.
>
> The price situation and the credit situation are no doubt frequently involved in one another, but the interrelationship of prices and credit is too complex to admit of any simple statement, still less a formula of invariable application. An over-simplified statement of complex problems contributes nothing toward the development of an effective administrative procedure. It is the view of the Federal Reserve Board that the price situation and the credit situation, while sometimes closely related, are nevertheless not related to one another as simple cause and effect; they are rather both to be regarded as the outcome of common causes that work in the economic and business situation. The same conditions which predispose to a rise of prices also predispose to an increased demand for credit. The demand for credit is conditioned upon the busi-

ness outlook. Credit is created in increasing volume only as the community wishes to use more credit — when the opportunity for the employment of credit appears more profitable. Sometimes borrowers want to borrow more and sometimes they are content with less. Sometimes lenders are ready to lend more and at other times less. Why this should be so depends on all those multifarious conditions and circumstances that affect the temper of the business community. For the most part these conditions lie beyond the radius of action of the Federal reserve banks. When the business outlook is inviting, business men are apt to adventure and new business commitments are made in increasing volume. But only later will these commitments be reflected in the possible rise of prices and an increase in the volume of credit provided by the commercial banks of the country. The Federal reserve banks will not to any considerable extent feel the impact of the increased demand for credit until the whole train of antecedent circumstances which has occasioned it is well advanced on its course; that is, until a forward movement of business, no matter from what impulse it is proceeding, has gained momentum.

Credit administration must be cognizant of what is under way or in process in the movement of business before it is registered in the price index. The price index records an accomplished fact. Good credit administration in times of active business expansion should not encourage or assist the excessive accumulation of forward commitments in business and banking which only later on will definitely reflect the rate at which they have been taking place in resulting changes of credit volume and changes of price levels; and in times of business reaction should discourage enforced liquidation of past commitments which also will only later on reflect the rate at which it has been taking place in altered credit volume and price levels. The problem of efficient credit administration is, therefore, largely a question of timeliness of action.

No statistical mechanism alone, however carefully contrived, can furnish an adequate guide to credit administration. Credit is an intensely human institution and as such reflects the moods and impulses of the community — its hopes, its fears, its expectations. The business and credit situation at any particular time is weighted and charged with these invisible factors. They are elusive and can not be fitted into any mechanical formula, but the fact that they are refractory to methods of the statistical laboratory makes them neither nonexistent nor nonimportant. They are factors which must always patiently and skillfully be evaluated as best they may and dealt with in any banking administration

that is animated by a desire to secure to the community the results of an efficient credit system. In its ultimate analysis credit administration is not a matter of mechanical rules, but is and must be a matter of judgment — of judgment concerning each specific credit situation at the particular moment of time when it has arisen or is developing. . . .

But the problem of credit and currency administration implies the use not only of qualitative tests but also of quantitative tests. By what means may it be known whether the volume of credit provided by the Federal reserve banks is in any given set of circumstances adequate, excessive, or deficient? The problem in good administration under the Federal Reserve System is not only that of limiting the field of uses of Federal reserve credit to productive purposes, but also of limiting the volume of credit within the field of its appropriate uses to such amount as may be economically justified — that is, justified by a commensurate increase in the Nation's aggregate productivity. The Board is fully aware of the fact that the problem of credit extension involves the question of amount or volume as well as the question of kind or character; otherwise stated, it involves a *quantitative* as well as a *qualitative* determination. But it is the view of the Board that it is not necessary to go outside of the Federal Reserve Act to find suitable methods of estimating the adjustment of the volume of credit provided by the Federal reserve banks to the volume of credit needs. The Federal Reserve Act itself suggests the nature of the tests, guides, or indicators — whatever they may be called — to be used in gauging the need for and the adequacy of Federal reserve credit. The provisions of the act . . . indicate that the needs for credit which are recognized by the act as appropriate are those derived from agriculture, industry, and trade. It is the belief of the Board that there will be little danger that the credit created and contributed by the Federal reserve banks will be in excessive volume if restricted to productive uses.

A characteristic of the good function of the economic system is to be found in the smooth unobstructed movement of goods from the producer through the channels of distribution to their several ultimate uses. The characteristic of the good functioning of the credit system is to be found in the promptness and in the degree with which the flow of credit adapts itself to the orderly flow of goods in industry and trade. So long as this flow is not interrupted by speculative interference there is little likelihood of the abuse of credit supplied by the Federal reserve banks and consequently little danger of the undue creation of new credit. The volume of credit will seldom be at variance with the volume of credit needs as they are reflected in the demands of productive industry so long as

(1) the volume of trade, production and employment, and (2) the volume of consumption are in equilibrium. Credit for short-term operations in agriculture, industry, and trade, when these operations are genuinely productive and nonspeculative in character, that is to say, credit provided for the purpose of financing the movement of goods through any one of the successive stages of production and distribution into consumption, is a productive use of credit. But when the effect of the credit used is to impede or delay the forward movement of goods from producer to consumer, unless such delay is made necessary by some unavoidable cause, e.g., the interruption of transportation facilities, credit is not productively used. The withholding of goods from sale when there is a market or the accumulation of goods for an anticipated rise in price is not a productive use. It is the nonproductive use of credit that breeds unwarranted increase in the volume of credit; it also gives rise to unnecessary maladjustment between the volume of production and the volume of consumption, and is followed by price and other economic disturbances. Administratively, therefore, the solution of the economic problem of keeping the volume of credit issuing from the Federal reserve banks from becoming either excessive or deficient is found in maintaining it in due relation to the volume of credit needs as these needs are derived from the operating requirements of agriculture, industry, and trade, and the prevention of the uses of Federal reserve credit for purposes not warranted by the terms or spirit of the Federal Reserve Act.

While statistical information concerning production and distribution, covering the whole range of business activity from producer to consumer, is not complete, it is sufficient to indicate currently the rate at which goods are being produced and marketed. Information of this character, as a result of the growing recognition of its value and of the activities of collecting such information both by governmental and private agencies, is now available more currently and in more lines of industry and trade than ever before. The changes from month to month recorded in these figures, when brought together and interpreted, indicate the nature and rate of readjustments which are constantly taking place in the industrial and business situation. The activity of business, as measured by these current statistics, is the outcome of the decisions and actions of a large number of individual business men. They are, to be sure, in form and in substance an account of the immediate past, but they also give indications of the conditions affecting the course of business in the future. While this information does not make it possible to measure or estimate in advance the probable aggregate volume of credit needs or to combine

into any single formula the elements of judgment applicable to varying credit situations as they arise, it provides basic data needed in banking administration. No statistical analysis can ever be a substitute for judgment in matters of credit administration, but such analyses of economic conditions are indispensable as furnishing the factual basis for credit judgment and for the development of credit policy.[1]

There was a slight business recession in 1924, and the reserve authorities attempted to ease the situation by lowering rediscount rates and purchasing government securities. The years 1925 and 1926 presented no important problems of credit control. Rediscount rates were maintained around 3½ per cent to 4 per cent, and government securities purchased were held at a level of approximately $350,000,000. It was during these two years that some attention was focused on the international factors because of England's and Germany's return to the gold standard. Governor Strong of the Federal Reserve Bank of New York was particularly active in attempting to assist England to return to the gold standard, and his actions were later severely criticized on the basis that he was paying too much attention to foreign affairs and not enough to those of his own country. The Bank Act of 1933 specifically prevents any official of the Federal Reserve System from carrying on negotiations with foreign banking systems without permission of the Federal Reserve Board. This provision was no doubt an outgrowth of the criticism of Governor Strong's actions during 1925 and 1926.

1927: Easing the Money Market. There was another minor business recession during the latter part of 1927. Again, as was the case in 1924, the Federal reserve authorities initiated easing measures. The rediscount rates were lowered and the reserve banks' holdings of United States securities were increased from approximately $300,000,000 to $600,000,000. It was at this time that the Federal Reserve Board forced the Federal Reserve Bank of Chicago to lower its discount rate. The Chicago bank was not in sympathy with the easing measures which were being taken by the other reserve banks. Heretofore the Federal Reserve Board

[1] Annual Report of the Federal Reserve Board (1923), "Guides to Credit Policy," pp. 29–39.

had merely passed upon rediscount-rate changes which were initiated by the individual reserve banks, but in this case it stepped in and ordered the Chicago bank to lower its rate from 4 per cent to 3½ per cent. Whether or not these easing measures were the cause of the rapid recovery, the fact remains that business did rebound quickly from the low point reached in the fall of 1927 and continued to improve until the summer of 1929.

The single year of 1927 is treated as a separate period because many have felt that it was at this time that the stage was set for the speculative boom which followed. Professor H. L. Reed stressed the following facts in support of the conclusion that money was too cheap during the latter part of 1927:

> First, declining trade and production themselves help to develop credit ease without the assistance of any absolute enlargement in the credit supply. Second, the per annum rate of increase in the volume of credit in the second half of 1927 was at least twice as great as the secular growth in the physical volume of trade. Third, in the last two months of the year, the Board's Index of Industrial Production declined so sharply as to indicate that adjustments outside the realm of credit were required to restore production to normal dimensions.[1]

An editorial in the New York *Journal of Commerce* for October 15, 1927, entitled "The Low Rate Fiasco," concluded:

> The proper thing to do is to reverse the low rate policy and get back to a basis which recognizes the real facts of the present money market and capital situation. So doing may give the markets a severe jolt, but not necessarily an injurious one. The sooner the policy is definitely taken up and consistently followed the better off we shall be and the less suffering we shall undergo.

1928–1929: the Attempt to Curb Speculative Activity. Although speculative activity had been higher than normal since 1924, the years 1928 and 1929 easily surpassed all previous volume records on the security exchanges. Security prices likewise went up in an almost uninterrupted fashion and reached heights far above any previous level. It does not seem necessary to describe in detail the

[1] Harold L. Reed, *Federal Reserve Policy, 1921–1930*, p. 128. McGraw-Hill Book Company.

events of this period, since they took place such a short time ago. It is now frequently referred to as the "New Era," so named by many commentators who at the time felt that conditions warranted the higher security prices, and who expected them to continue as long as corporate earnings continued to increase as they did from about 1922 to 1929.

During these two years, 1928 and 1929, the reserve authorities were disturbed over the situation. As was previously mentioned, many authorities felt that the damage was done during 1927 and in early 1928, when credit expansion was far in excess of the long-term growth in business.[1] During the first six months of 1928 the reserve banks raised the rediscount rates from approximately 3½ per cent to approximately 5 per cent, and reduced their holdings of government securities by the end of the year to some $250,000,000. These actions, however, failed to prevent increasing credit expansion and rising security prices. So, in early 1929, February 7, the board issued the following warning, a portion of which has previously been quoted:

> During the last year or more . . . the functioning of the Federal Reserve System has encountered interference by reason of the excessive amount of the country's credit absorbed in speculative security loans. The credit situation since the opening of the year indicates that some of the factors which occasioned untoward developments during the year 1928 are still at work. The volume of speculative credit is still growing.
>
> Coming at a time when the country has lost some $500,000,000 of gold, the effect of the great and growing volume of speculative credit has already produced some strain which has reflected itself in advances of from 1 to 1½ per cent in the cost of credit for commercial uses. The matter is one that concerns every section of the country and every business interest, as an aggravation of these conditions may be expected to have detrimental effects on business and may impair its future.
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> The Federal Reserve Board neither assumes the right nor has it any disposition to set itself up as an arbiter of security speculation or values. It is, however, its business to see to it that the Federal Reserve Banks function as effectively as conditions will permit. When it finds that conditions are arising which obstruct Federal Reserve Banks in the effective

[1] Professor Reed holds that correct timing of the restrictive measures during 1928 was of the utmost importance to effective credit control.

discharge of their function of so managing the credit facilities of the Federal Reserve System as to accommodate commerce and business, it is its duty to enquire into them and to take such measures as may be deemed suitable and effective in the circumstances to correct them; which, in the immediate situation, means to restrain the use, either directly or indirectly, of Federal Reserve credit facilities in aid of the growth of speculative credit.

After this warning there occurred a slight recession in security prices, but they soon continued on their upward surge; a second warning very similar to the first was issued in April, and again, after a temporary pause, security prices continued to go up. Rediscount rates, or at least the rate of the Federal Reserve Bank of New York, were not again changed during 1929 until August. The New York bank continually petitioned for a rate increase from 5 to 6 per cent, beginning in February, 1929, but this increase was not allowed until August.

Business activity in the meantime had reached its high point in the summer of 1929, and during the third quarter of the year began slowly to decline. Security prices on the average, however, did not reach their high point until early September, and they fell very gradually until the drastic declines began in late October, 1929. If one can say that the Federal Reserve System is charged with the duty of preventing abnormal speculative activity, then the conclusion that Federal reserve policy during 1928 and 1929 was a failure would seem to be irrefutable. In order to take care of a similar situation which may arise in the future, the Bank Act of 1933 provides that the Federal Reserve Board may refuse to extend additional credit to any member bank which, in its judgment, is making undue use of bank credit. The complete provision is as follows:

SEC. 3 (*a*). Each Federal Reserve Bank shall keep itself informed of the general character and amount of the loans and investments of its member banks with a view to ascertaining whether undue use is being made of bank credit for the speculative carrying of or trading in securities, real estate, or commodities, or for any other purpose inconsistent with the maintenance of sound credit conditions; and, in determining whether to grant or refuse advances, rediscounts, or other credit accommodations,

the Federal Reserve Bank shall give consideration to such information. The chairman of the Federal Reserve Bank shall report to the Federal Reserve Board any such undue use of bank credit by any member bank, together with his recommendation. Whenever, in the judgment of the Federal Reserve Board, any member bank is making such undue use of bank credit, the Board may, at its discretion, after reasonable notice and an opportunity for hearing, suspend such bank from the use of the credit facilities of the Federal Reserve System, and may terminate such suspension or may renew it from time to time.

The Federal Reserve Board likewise has the power

to fix from time to time for each Federal Reserve district the percentage of individual bank capital and surplus which may be represented by loans secured by stock or bond collateral made by member banks within such district, but no such loan shall be made by any such bank to any person in an amount in excess of 10% of the unimpaired capital and surplus of such bank. Any percentage so fixed by the Federal Reserve Board shall be subject to change from time to time upon ten days' notice, and it shall be the duty of the Board to establish such percentages with a view to preventing the undue use of bank loans for the speculative carrying of securities. The Federal Reserve Board shall have power to direct any member bank to refrain from further increase of its loans secured by stock or bond collateral for any period up to one year under penalty of suspension of all rediscount privileges at Federal Reserve banks.

1930–1934: the Attempt to Stop Bank Contraction and Force Expansion. Almost immediately after the break in the security markets in the fall of 1929, the Federal Reserve System began its easing measures. By the end of 1930 the Federal Reserve Bank of New York had lowered its rediscount rate to 2 per cent, and further reduced it to 1½ per cent in May, 1931. This was an all-time low for a rediscount rate. With minor variations, these low rates continued through 1932, 1933, and 1934. Business, however, continued to decline with minor interruptions until the spring of 1933, and the volume of rediscounts did likewise. During the years 1932, 1933, and 1934 the volume of rediscounts held by the reserve banks averaged about $250,000,000. Considering 1934 alone, it may be said that rediscounts during this year were almost nil. At only one time during these three years did the volume

of rediscounts approach what might be called a normal level. During the bank holiday in March, 1933, rediscounts reached $1,400,000,000, but the decline was rapid when the banks began to reopen.

On the side of the United States security purchases, however, the story is entirely different, as has been mentioned previously. After the passage of the Glass-Steagall Bill of February, 1932, the reserve banks began to buy government securities in large volumes. In February, 1932, they held $742,816,000 in United States securities, while in August their security holdings had increased to $1,850,216,000. During the remainder of 1932 and the early part of 1933 these holdings changed very little, but after the passage of the Inflation Bill, which was a rider to the Agricultural Adjustment Act of May 12, 1933, the reserve banks began to purchase United States securities in sizable volumes once more. Thus in March, 1933, they held $1,835,963,000 in government securities, while in August this form of Federal reserve bank assets had increased to $2,128,772,000. The purpose of these purchases was to place the member banks in such a favorable reserve position that they would begin to grant loans to industry.

In spite of these purchases, however, member-bank loans continued to contract. The total loans of all banks in the United States as of June 29, 1929, exclusive of mutual savings banks, were $35,639,000,000, and by the close of 1933 these loans had fallen to $16,168,000,000. This continued contraction in commercial bank credit has been one of the most disturbing influences in the recovery program. Many have felt that recovery will not be possible, or at least that it cannot proceed very far, until bank expansion takes place. Facing the fact that bank loans were not expanding, the government during 1933 and 1934 passed several laws which provided for direct loans to industry by Federal agencies. The principal loans provided for by these laws were the direct loans of the Reconstruction Finance Corporation, the direct loans which could be made by the Federal reserve banks under the Glass-Steagall Act of 1932 and, more especially, under the Industrial Loans Act of June, 1934, and the direct loans which were made through the Home Owner's Loan Corporation. These pro-

visions will be discussed in more detail in a subsequent chapter on recent monetary legislation.

Summarizing, then, the effectiveness of the Federal reserve policies during this period (1930–1934), we may say that, in spite of the extremely low rediscount rates and in spite of heavy purchases of government securities, the loans of member banks continued to contract until 1933, and during the latter half of 1933 and the first half of 1934 remained almost stationary. Beginning with the fall of 1934, bank loans began to expand in a moderate way, but this increase was again short-lived. Measured in these terms, then, the Federal Reserve System's policy was not successful during the depression period (1930–1934) in forcing member-bank expansion, but it may have prevented further contraction.

The Future of the Federal Reserve System. At this critical period, 1935, it would be extremely hazardous to forecast the future position of the Federal Reserve System as a credit-control agency. Mr. James P. Warburg, son of Mr. Paul M. Warburg, who was instrumental in setting up the Federal Reserve System, recently stated that our Federal Reserve System had been "emasculated."[1]

The following is part of an editorial that appeared in the *Commercial and Financial Chronicle* of August 18, 1934:

Wanted: A Central Bank

For a good while past reports have also been emanating from Washington to the effect that plans were being formulated for the replacement of the Reserve system itself with a governmentally owned and operated "central bank," although in all respects except that of direct ownership the present system seems to be about what is reported as in contemplation.

One of the most important problems with which this country will find itself faced when the New Deal collapses will be that of creating an organization or a system to perform the task traditionally assigned to a central bank. The present Reserve system has never been permitted to serve these purposes very well. It is now, except for its clearing and collection system, nothing more than a servile adjunct to the Treasury

[1] Address before the Financial Advertisers Association held at Buffalo, New York, September 12, 1934.

Department in Washington, owning practically nothing but government obligations, unredeemable gold certificates, and a number of pretentious bank buildings.

It would, of course, be foolish to expect any governmentally owned institution to correct this situation. The state of affairs would be made worse by such a change.

There is at present no apparent disposition to give the matter much thought, and in political circles, little or no understanding of the needs of the situation, yet the time will come, and the sooner it comes the better, when we shall realize our need of an institution of the kind the Bank of England once was.

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CHAPTER XXVII

THE SECURITY MARKETS

History shows that where there are articles to be traded, there will always be markets. The exchange of securities in the United States was unimportant during the early years of its history for the very simple reason that there were few securities in the possession of the colonists. In New York City, which was founded by the Dutch as a trading post, commodity markets were quickly set up. However, it was not until some hundred and fifty years later that securities existed in sufficient quantity to prompt the establishment of a market. As early as 1752 we read of the establishment of a favorite meeting place for merchants at the foot of Broad Street in New York City for the purpose of dealing in water-borne products. Another market place was established at the foot of Wall Street, where manufactured goods from Europe were unloaded from the incoming boats and auctioned off to the New York merchants. In 1766 the present New York Chamber of Commerce was organized. Even as late as the Revolutionary War, however, securities still did not exist in sufficient quantity in the United States to warrant the establishment of an exchange place for them. The Revolutionary War was important in bringing about the establishment of a security market because it created a heavy national debt, the evidence of which existed in the form of government bonds. In 1781 the Bank of North America was created in Philadelphia, and several years later the merchants of Manhattan organized the Bank of New York. But a still more important step was the creation of the first Bank of the United States, which was established in 1791 under Secretary of the Treasury Alexander Hamilton, a New Yorker.

Although the records of early security trading are meager, it is probably true that securities were first traded on the same markets

as commodities. Traditionally the first emergence of anything that resembles an exclusive security market is said to be the daily meeting beneath a buttonwood tree of a number of New York stockbrokers. In 1790 this tree stood where 68 Wall Street now stands. In inclement weather the stockbrokers took refuge in some of the near-by coffeehouses.

The first written evidence of an organization brought together by something more than mere customary meetings was an agreement which was drawn up and signed on May 7, 1792, by twenty-four of these so-called stockbrokers. The agreement was as follows:

> We, the Subscribers, Brokers for the Purchase and Sale of Public Stock, do hereby solemnly promise and pledge ourselves to each other that we will not buy or sell, from this day, for any person whatsoever, any kind of public stock at a less rate than one-quarter per cent commission on the special value, and that we will give preference to each other in our negotiations.[1]

The organization grew very rapidly, and was aided by the War of 1812, which resulted in a heavier government debt and hence more government bonds, so that in 1817 the organization moved into its first sheltered quarters and took for itself the name of the New York Stock and Exchange Board. The opening of the Erie Canal in 1825 definitely transferred the commercial center of the United States from Philadelphia to New York. In 1865 the organization adopted its present name of the New York Stock Exchange and moved into a building on the site of the present more spacious exchange building on Broad Street. The growth of the New York Stock Exchange after the Civil War and during the period of great industrial and railroad development in the United States is easily explained. (In 1869 there were five hundred and thirty-three members, and in 1879 provision was made for eleven hundred members.)

The New York Stock Exchange, however, is not the only market dealing in securities in the United States. There are stock exchanges in all the principal cities, including Boston, Philadelphia, Chicago, San Francisco, and St. Louis. The second largest exchange in the United States is the New York Curb Market.

[1] J. Edward Meeker, *The Work of the Stock Exchange*, p. 63.

Frequently, in comparing the New York Stock Exchange and the Curb, one speaks of the former as the "big board," not because there are so many more securities listed there, but primarily because the requirements necessary for listing on the New York Stock Exchange are more difficult to fulfill than those of the Curb Market. Many new corporations first list their securities on the Curb and then later on the "big board." J. Edward Meeker, for a number of years economist to the New York Stock Exchange, describes the function of the Curb as follows: "The chief economic function of the Curb is as a preliminary market; frequently it anticipates the termination and even the opening of a published offering of new securities by allowing contracts for their purchase and sale to be made, 'when, as, and if issued.'"[1] It is difficult, however, to exaggerate the prominence of the New York Stock Exchange, and most of the subject matter of this chapter will deal with that organization.

The Operation of the New York Stock Exchange. The New York Stock Exchange is made up in general of two parts: its physical equipment, consisting of its building at 1 Broad Street, and its membership, consisting of some twelve hundred brokers. The building not only contains a large trading floor but likewise a number of offices and facilities for the Stock Exchange Clearing Corporation. Members of the New York Stock Exchange are said to hold "seats." These seats may be sold to any person or any partnership which is acceptable to the Acceptance Committee of the exchange. The word "seat" is no longer descriptive, since there are no chairs on the trading floor; when the exchange was much smaller than it is now, it was possible for every member to occupy a specific seat reserved for him.

Membership. Membership may not be held in the New York Stock Exchange by a corporate organization. It must be held by an individual or a partnership. Only members are allowed on the trading floor except for a number of pages, reporters, attendants, and clerks. In 1930 there were in addition to the members some 500 pages, 235 reporters, 142 attendants, 140 quotation clerks, and 80 bond clerks. In 1929 the membership was increased from

[1] *The Work of the Stock Exchange*, p. 92. The Ronald Press.

1100 to a maximum of 1375. Usually not more than half the members are on the floor at one time. Trading on the floor of the exchange by a member may be done without direct cost; of course the expenses of the entire exchange are prorated among the various members. Anyone wishing to purchase or sell a stock on the exchange must do so through one of the members, or, in more common terminology, a stockbroker, who is either directly a member of the exchange or has an affiliation with a member.

The membership of the exchange may be subdivided into several classes, the most important of which is that of the exchange brokers. This group of members, frequently referred to as commission houses, executes orders for its clientele, which may consist of a few very wealthy customers or thousands of smaller accounts; the latter are obtained by establishing branch offices throughout the entire country. The efficiency with which the ticker service operates makes it possible for orders to be executed from distant offices almost as rapidly as from offices within New York City. A Seattle broker once remarked that he executed an order after only thirty seconds remained before the closing time of the exchange. Some of the commission houses specialize in particular issues. It has been said that during 1929 there were five exchange members who dealt exclusively in General Motors stock. Broker specialization is sometimes on a broader basis, such as in railroad, oil, or steel stocks.

Another class of exchange members is known as "two-dollar brokers." These brokers have no particular commission house but use their exchange membership to assist commission houses in executing orders, particularly when the market is so active that it is difficult for the regular commission broker to handle all his business. The business of the "two-dollar broker" is sometimes referred to as "free-lance."[1] He gets his name from the charge which he used to make, which was two dollars for the purchasing or selling of a hundred shares of stock. This rate has been changed, but the name still prevails.

A third group of members is known as "odd-lot dealers." The unit of trading on the New York Stock Exchange is a hundred

[1] J. Edward Meeker, *The Work of the Stock Exchange*, p. 82.

shares. If it were not possible for less than this number of shares to be traded in, many persons would find it impossible to do any trading, at least in particular shares. A share selling for $100 would necessitate an outlay of $10,000 in case of outright purchase. During 1928 and 1929 a number of shares passed the $300 limit. The "odd-lot dealer," in general, purchases shares in units of less than a hundred; and when he has accumulated as many as a hundred, he may then sell them in the usual manner. On the other hand, he may purchase a hundred shares outright and sell them to customers in odd lots. The customer may expect to pay a slightly higher price for purchases of less than a hundred shares; usually, however, this does not amount to more than an eighth of a point.

The fourth class of exchange member is called the "floor trader." This person deals in all stocks listed on the exchange, and is usually willing to buy or sell any of them on his own account whenever he sees the likelihood of a profit. In other words, he has a membership entirely for his own purposes, and usually does not execute orders for others on a commission basis. "Floor traders" serve the very important function of helping to maintain an active market and to prevent wide variations in successive purchases and sales of individual stocks.

A Concentrated Market. There is no central trading post on the floor of the exchange, but rather a number of posts, some twenty in all. The various stocks are listed alphabetically, and each stock is traded in at a particular post. For example, American Can and American Telegraph and Telephone can be traded in only at post No. 1, while United States Steel and United Aircraft would be traded in at, say, post No. 17. This system has permitted us to say that the New York Stock Exchange affords one of the best examples of a concentrated market. Of course, it is not true that all the shares of United States Steel are traded in on the New York Stock Exchange, but no doubt a very large portion of them are. A person wishing to sell his holdings in United States Steel may merely shop around among his friends and business acquaintances of the community in order to obtain the best price for his securities. The usual method, however, is for a person to take his shares to a broker and have them sold on the New York Stock Exchange.

As of June 1, 1933, there were 1220 stock issues listed on the New York Stock Exchange. Of these 811 were issues of common stock, and 397 were issues of preferred stock. The small difference of 12 is accounted for by miscellaneous issues, such as voting trust certificates. If one picks up the daily paper, however, and counts the number of securities listed, one will find only about half this number. This is due to the fact that in the daily quotations only those stocks which are traded in that day are listed.

Requirements for Listing. The principal requirements which must be fulfilled before a stock will be listed are the following:

1. Reasonably full information concerning the financial affairs of the corporation, to show its financial stability. Thus while the Exchange does not guarantee the character of any securities, or affirm that the statements filed by the issuer are true, it does certify that due diligence and caution have been used by experienced men in examining them.

2. Agreement to maintain, in accordance with Exchange rules, a transfer office or agency in the Borough of Manhattan, City of New York, where all listed securities shall be directly transferable, and the principal of all listed securities with interest and dividends thereon, shall be payable. Also, a registry office in the Borough of Manhattan, other than the transfer office or agency, where all listed securities may be registered.

3. Maintenance of a sufficient supply of stock or bond certificates to meet demand for transfer. Quality and engraving of certificates must be approved by the Exchange, so as to reduce danger of forgery, which destroys ready negotiability.

4. Information on the distribution of securities, insisting on at least 100 holders and in practice expecting many more. The purpose is to insure a free and open market. If the supply becomes inadequate, trading in the issue may be suspended or it may be stricken from the list, in order to prevent manipulation and corner.

5. Agreement "not to dispose of an integral asset or its [the corporation's] interest in any constituent subsidiary, owned or controlled company, or allow any of said constituent subsidiary, owned or controlled companies to dispose of an integral asset or stock interest in other companies, unless for retirement or cancellation, without notice to the Stock Exchange." It must also notify the Exchange of any substitution in collateral behind a listed bond issue.

6. Agreement to publish once a year, or oftener if required, and submit to stockholders, at least 5 days in advance of the annual meeting of the

corporation, a statement of its financial condition, a consolidated income account covering the previous fiscal period and a consolidated balance sheet of the parent company and of all constituent subsidiary, owned or controlled companies. The Exchange also favors quarterly earnings reports.[1]

The New York Stock Exchange is still not an incorporated body. The Hughes investigation of 1909 refused to recommend incorporation, although the Pujo money-trust investigation favored it in 1912. Bonds as well as stocks are listed on the New York Stock Exchange, but the importance of the bond transactions has steadily declined since 1900, until at the present time it is probably true that bond transactions represent perhaps only 10 per cent of the total sales of bond issues listed on the exchange.[2]

A large portion of the bond sales of this country are carried on through what is termed "over the counter" transactions. By this it is meant that the buying and selling are conducted chiefly over the telephone by the New York dealers and other dealers in the various centers of the country and likewise abroad.

Speculation versus Investment. A great deal has been said about the speculative activity which is carried on through the use of the New York Stock Exchange. It is probably not possible to differentiate clearly between what is speculation and what is investment, but one usually thinks of investment as the purchasing of securities which are to be kept for their income-bearing qualities over a period of years unless exceptional circumstances warrant their sale. Speculation, on the other hand, as far as the security markets are concerned, is the purchase or sale of securities over short periods in the hope of obtaining a profit on the principal sum invested. The income from the securities is usually a minor consideration. To illustrate, if a person purchases a security and puts it away in his safety-deposit-vault box, we usually say that that person has made an investment, whereas if a person purchases a security with the intention of selling it as soon as it appreciates in price, and probably during the interim does not

[1] Steiner, *Money and Banking*, pp. 411–412. Henry Holt and Company.
[2] Willis and Bogen, *Investment Banking*, pp. 49–50.

even have the securities in his physical possession, we generally consider this a speculative transaction.

Margin Trading. If a person does not wish to have a security delivered to him, it is usually possible to purchase it without paying the entire market price. This method of trading is commonly referred to as margin trading. For example, a person may go to a broker and express the desire to purchase, say, a hundred shares of a stock selling at $50 a share. If he wishes to have the securities delivered to him, he will have to pay the broker $5000, plus the usual commission charge; but if he is buying them with the intention of selling in the event of an increase in price, then he may not be required to put up the full $5000. Assume for the moment that the margin requirement is 33⅓ per cent. This means that the customer will have to place with his broker only $1666.67 in order to obtain legal ownership of the stock.

When the broker purchases these stocks for the customer, however, it is necessary for him to make full payment for them within approximately twenty-four hours. In other words, the rule on the New York Stock Exchange is that all transactions of one day must be settled in full by 2.15 P.M. the following day. It is clear, then, that the broker has had to furnish $3333.33 in this case. Where does he get it, and how much does he charge the customer for, in a sense, advancing him this amount? When the broker purchases the shares, he retains possession of them, and it is part of his agreement with the customer that he may pledge them as collateral in order to obtain a bank loan. This $5000 worth of securities, then, may be taken to a bank and used as collateral for a $3333.33 loan. The broker in this case is not out a cent, because the amount which he does not receive from his customer he obtains from the bank in the form of a loan by using the customer's securities as collateral. While the securities are being held for the customer, he is credited with whatever dividends accrue to them, and likewise he is charged with the interest which the broker has to pay to the bank for the $3333.33 loan.

The amount of the originally assumed margin of 33⅓ per cent is, in general, determined by the percentage of the value of the securities which the banker is willing to advance to the broker.

For example, in our case the banker is advancing 66⅔ per cent of the value of the securities to the broker. If the banker were willing to advance only 60 per cent of the value of the securities, then the broker would probably require his customer to put up 40 per cent of the entire face value of the securities purchased. This is not the only factor which determines the amount of the margin. Other factors, such as the general credit standing of the customer, the nature of money-market conditions at the time, and the accessibility of the customer to the market, must be considered. The point should be made clear, however, that the broker is doing a commission business, not a money-lending business, and acts as an intermediary in the transaction. The commission which the broker receives is his entire source of income.

Since the broker is directly responsible to the bank for the loan which he obtains from it, it is necessary for him to have a definite agreement with the customer concerning the disposition of the securities. Stated in nontechnical terms, this agreement provides that as long as the customer sustains all losses, and maintains the required margin, he will have full jurisdiction over the disposition of the securities. If, however, the customer fails to live up to this agreement, then the broker may "close him out," which in general means to sell his securities.

If, in our example, the securities were to fall in price to $40 a share, the customer would be subject to a margin call. Since the securities were purchased at $50 per share, this means that the customer has a $1000 loss, and in addition he is still required to maintain the 33⅓ per cent margin of the new price, which would be $1333.33, making a total of some $2300, $1667 of which he has already furnished; therefore his margin call would be for an additional sum of approximately $633. If the stock goes up, as the customer anticipated when he purchased the securities, to, say, $60 a share, he may decide to sell them, in which case the broker would deduct the amount of the bank loan, plus a commission charge, and credit the balance to the customer's account, giving him a profit of $1000 minus all commission charges.

Short Selling. In addition to buying stocks on margin, which is in general a means of making money when security prices

go up, it is possible to sell stock short, which is principally a means of making money when security prices go down. The procedure is briefly as follows: A customer believes that a certain stock will go down in the near future. He instructs his broker to sell it short. In order to do this, since the customer did not furnish the broker with the stock to sell, the broker has to borrow the stock from a third person and sell it for his customer's account. The margin requirements are usually the same as when securities are purchased on margin; that is, the customer must sustain all losses and maintain the required margin percentage. If the stock goes down as anticipated, the customer will instruct the broker to "cover" the transaction, which means to buy back the same number of shares as he had previously sold. These shares which the broker buys back will then be returned to the person from whom they were originally borrowed, and this person will be out of the transaction, except for the fact that he may receive a fee for the use of his stock.[1] The customer is the gainer to the extent that the borrowed stocks were sold at, say, $50 a share and were bought back at, say, $40 a share, which makes his profit $10 a share, less commission and interest charges.

A great deal has been said about the undesirability of short selling. The exchange authorities, however, contend that it is desirable, since it helps to provide an active market; in addition short selling may reduce the severity of variations in security price changes. For example, if there is a large volume of short selling, this will in itself depress prices; but when the transactions have to be covered, then the repurchasing will tend to stop the falling security price movement, or even perhaps cause a price increase. It does seem clear, however, that for long down-

[1] The lender of the stocks gets the use of whatever sum of money is represented by the market price of the securities for the period of the loan. Stocks are lent under three conditions: "with interest," which means that the lender of the securities pays interest on the sum of money advanced to him; "flat," which means that the lender gets the use of the amount of money represented by the market price of his securities in exchange for lending them; and "at a premium," which means that the borrower of the stocks pays a premium to the lender in addition to furnishing him with the amount of money represented by the market price of the securities.

ward trends in security prices it is not possible for short-selling transactions to be primarily responsible, because, as is frequently said, for every short sale there must later be a purchase.

Brokers' Loans. The loans which brokers receive from the banks by using customers' securities as collateral are technically referred to as brokers' loans. Most of these loans are under conditions of call, which means that if a banker calls a loan during any part of the day, it must be paid the following day. The customary practice is to call loans only during the morning hours, so as to allow brokers ample time for settlement. In addition the broker may notify the banker that he wishes to pay off the loan under the same time arrangement. A small portion of brokers' loans are time loans, that is, loans which the brokers obtain from the bank under definite maturity agreements.

So far as the brokers' loans on the New York Stock Exchange are concerned, although they are all obtained directly from the New York City banks, the ultimate source of the funds is either the New York banks themselves or banks outside New York which send their funds to the New York banks to be lent in this manner. Before 1932 there was a third source of brokers' loans, which, during the speculative period 1924–1929, was extremely important. This source was what has technically been referred to as "brokers' loans for others." The "others" consisted primarily of corporations and individuals who wished to invest their funds upon the call-money market by sending them to the New York City banks.

At the present time, 1935, the total of brokers' loans is approximately $500,000,000. At the high point in 1929 these loans reached almost $8,000,000,000, and at the peak period over half of them were for the account of "others." As soon as the market decline began in the fall of 1929, the "others" were the first to withdraw; the New York banks felt some responsibility for preventing the security markets from becoming demoralized, and therefore were forced to fill the breach created by the withdrawal of the funds of outside corporations and individuals. In the spring of 1932 the New York Clearing House ruled that they would no longer accept funds from others to be lent to brokers on conditions of call.

Call Money. The rate which is effective for the first day of all call loans is the call-money rate; the rate which is effective every day thereafter is the renewal rate. If a call loan is in effect, therefore, six days, the call rate applies for the first day and the renewal rate for every day thereafter. Both these rates are determined by a committee of the New York Stock Exchange. There is near the trading floor of the exchange what is called the money desk. At this desk the brokers make requests for loans, and the bankers call in the amounts which they desire to lend to brokers. At the beginning of each day the clerk at the money desk knows how much money is available, and how much is desired by the brokers. With these two figures in mind the committee decides the rate for that day. The renewal rate, which is set somewhat later in the day, is determined in much the same manner. The call-money rate, in general, fluctuates more than the renewal rate.

At one particular time during the panic of 1907 the call-money rate went to 125 per cent, and during the year 1929 it averaged almost 8 per cent, while during the year 1934 it averaged about 1 per cent. This rate, therefore, is perhaps the most sensitive of all interest rates in the United States to changes in money-market conditions.

The Speculative Boom of 1924-1929. A great deal has been written about the speculative boom which occurred prior to 1929. It is not possible to indicate the exact point at which the boom started, but, so far as the security markets are concerned, the year in which it started seems to have been 1924. During the latter part of this year there was a slight business recession, and, after the recovery started, security prices began an upward surge which continued almost without interruption until the fall of 1929.

Many persons have felt that the World War played an important part in the security boom period. During the war and immediately thereafter people were encouraged, and in some cases coercive measures were used, to purchase government bonds even though they were not able fully to pay for them at the time. The purchaser of a government bond could make up the difference between the face amount of the bond and the amount of money which he had in cash by taking the bond to his bank and borrow-

ing from the bank. He would use the bond as collateral for the loan. The banks, in turn, if they were members of the Federal Reserve System, could receive preferential rediscount rates if they chose to rediscount such paper with the reserve banks. Consequently they were able to make these loans to their customers at a rate which was lower than their usual charge to borrowers.

Before the World War most people usually dismissed all thoughts of purchasing securities unless they could fully pay for them. After the public once got the habit of being able to purchase securities without fully paying for them, it was easy to continue such practices. After 1922 we started to reduce the national debt, and there were no more new government-bond issues.

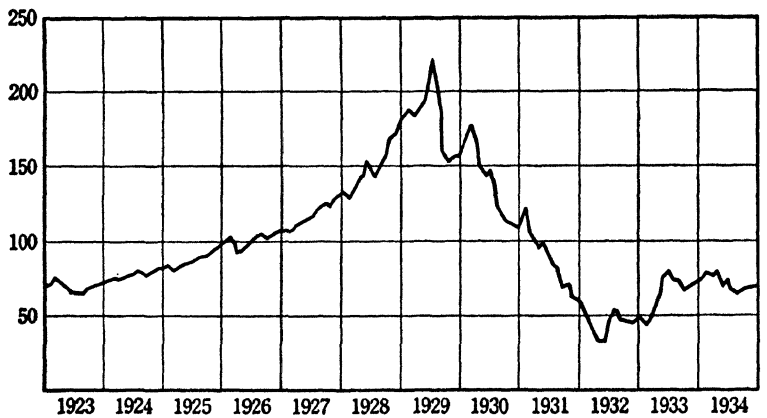
Some have felt, therefore, that people took to the security markets in order to give vent to their new investing habits. Moreover, in investing in corporate securities they believed themselves to be in a more favorable position than they had been in as holders of government bonds. The prices of government bonds fluctuated only within fairly narrow limits, while the prices of corporate securities, especially stocks, might rise to an almost unlimited extent. It soon became evident that the appreciation of the principal sum invested was of more importance than the income from the securities.

The foregoing may not be a complete explanation of the speculative boom which started in the early 1920's, but the important consideration for our concern is that such a speculative boom did take place in the security markets. Many have felt that this was a genuine boom, supported by the increased earning capacities of corporations. A survey of the earnings records of corporations during these years will clearly indicate that, though there was an increase in earnings, it was not enough to support the much greater increase in security prices. So far as the volume of physical production is concerned, the annual rate of increase during these years did not noticeably exceed the annual rate of increase which had been taking place since about the turn of the twentieth century.

There are many very interesting stories which support the fact that new and inexperienced speculators were being "made" overnight. Market "playboys" were common. Experienced specu-

lators viewed the situation with some alarm because of the new and inexperienced element that was being introduced into the scene. "The price of Steel" was a common topic of conversation among those attending all sorts of social gatherings. It was not difficult for almost anyone to pick a winner. There was little investigation before purchasing, as may be illustrated by the fact that brokerage houses reported sales of Seaboard Air Line to customers who thought they were buying stock in an airplane company. Fortunes were created out of paper profits, and a tip from a big operator's valet was considered more important than Moody's ratings.

The general picture of this period may be summarized by graphically portraying what happened to security prices, and also by showing the tremendous increase in the volume of business handled by the security exchanges, especially by the New York Stock Exchange. The following chart gives the course of security prices:



COURSE OF SECURITY PRICES FROM 1923 TO 1934 AS SHOWN BY THE STANDARD STATISTICS INDEX OF COMMON STOCKS (1926 = 100)

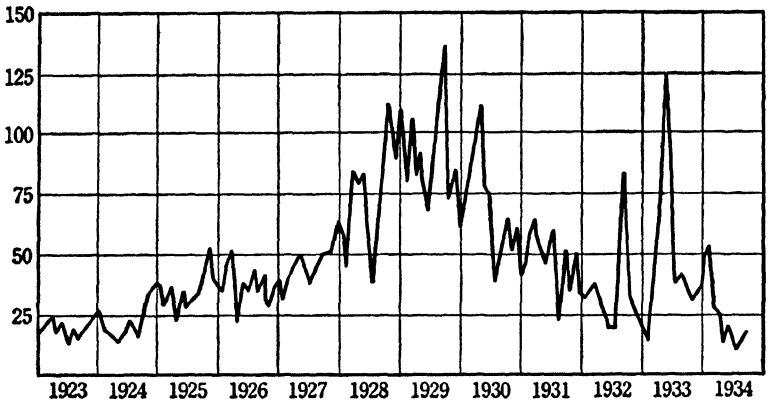
For the month of September, 1929, the average weekly index of stock prices stood at 225, while for June, 1932, this index had fallen to 34, a drop of 85 per cent. The severity of this decline is unprecedented in the history of the New York Stock Exchange.

In other words, the average stock that was selling for $100 in September, 1929, fell to $15 by June, 1932, which was less than three years later. During one week alone, the week of October 22 to October 29, 1929, security prices fell on the average 28 per cent. The autumn of 1929 has been referred to as the stock-market crash, or the panic, of 1929. Although the average daily volume of shares traded on the New York Stock Exchange for the year 1929 was slightly in excess of 3,000,000, which was more than double the average volume of a few years previous, on one day during the panic over 16,000,000 shares were traded. The ticker service was inadequate and ran at times almost two hours behind the market.

Probably no one knows the exact cause of the turning point in security prices, but it should be mentioned that business had been slowly declining for several months prior to the decline which began on the security market. Once the decline began, it is relatively easy to explain its continuance. The volume of margin trading, as has been previously mentioned, was very high at the time. As security prices fell, margin calls were sent out. The decline was so drastic that brokerage houses were not able to spend very much time in attempting to reach their margin customers whose accounts were deficient. As a consequence many accounts were closed out without even the knowledge of the customers; and naturally the more accounts were closed out, the more security prices fell. Similar to a rolling snowball going downhill, the declining movement gathered momentum as it proceeded. The checking of this decline which took place in the spring of 1930 was of short duration, as were all upward movements which took place before the low point in the summer of 1932.

The prices of certain common stocks were so high in 1928–1929 that the corporations felt that they were out of reach of the small investor. In order to remedy this situation many corporations split their stock. This was frequently referred to as "cutting a melon." The procedure was roughly as follows: A corporation's stock is selling at, say, $400 a share, which places it beyond the reach of the small investor; therefore the corporation calls in each of its old shares and issues, say, four new shares for each old share.

Since there are four new shares to represent what one old share represented, the market price theoretically drops to $100 a share. Together with the tremendous increase in security prices, there was a decided increase in the volume of securities traded in on the New York Stock Exchange, as shown in the following chart:



THE VOLUME OF SECURITIES TRADED IN ON THE NEW YORK STOCK EXCHANGE, 1923–1934 (1926 = 100)

The Absorption of Credit by the Security Markets. From the point of view of the financial observer, one of the most important considerations concerning the boom was whether or not the funds which were being used in the security markets were being drawn from what might be called more legitimate business uses.

Brokers' loans, which have previously been discussed, are usually considered a measure of the amount of funds used by the security markets. The table on page 613 gives the average monthly volume of brokers' loans between 1926 and 1932.

In addition to the increase in the absolute volume of brokers' loans, another important element was that most of the increase was the result of a rise in the volume of loans to brokers for the account of "others." These loans were made up primarily of surplus funds possessed by individuals and corporations that wished to invest them in the security markets on a call basis. In January, 1926, only approximately 19 per cent of all brokers' loans were for

MONTHLY VOLUME OF BROKERS' LOANS BETWEEN 1926 AND 1932 AS REPORTED BY THE NEW YORK STOCK EXCHANGE (IN MILLIONS OF DOLLARS)

MONTH	1926	1927	1928	1929	1930	1931	1932
January	3513	3139	4420	6737	3985	1720	512
February	3536	3256	4323	6679	4168	1840	525
March	3000	3290	4640	6804	4656	1909	533
April	2836	3341	4908	6775	5063	1651	379
May	2767	3458	5274	6665	4748	1435	300
June	2926	3569	4898	7071	3728	1391	244
July	2998	3642	4837	7474	3689	1344	242
August	3142	3674	5051	7882	3599	1354	332
September	3219	3915	5514	8549	3481	1044	380
October	3111	3946	5880	6109	2556	796	325
November	3129	4092	6392	4017	2162	730	338
December	3293	4433	6440	3990	1894	587	347
Average for the year	3123	3646	5215	6563	3644	1317	371

the account of "others," while in September, 1929, about 56 per cent of all brokers' loans were in this group. A summary of this increase is given in the following table (in percentages):

MONTH	1926	1927	1928	1929
January	18.7	26.6	26.0	45.0
February	19.4	27.5	29.5	47.8
March	20.5	29.2	33.1	50.6
April	21.4	28.1	30.6	52.8
May	22.0	27.4	34.2	53.9
June	23.8	27.5	39.8	54.6
July	24.7	28.3	41.2	51.2
August	25.7	28.5	44.1	54.2
September	24.5	28.0	43.5	55.6
October	26.9	28.3	43.5	55.4
November	28.6	28.7	44.0	
December	28.3	26.5	44.0	

In spite of this tremendous increase in brokers' loans, many writers have felt that the stock market does not absorb credit. This position is clearly taken by Professor Cassel, the eminent Swedish economist. His conclusions are as stated on page 614.

We shall repeatedly come across statements to the effect that the loans to the New York Stock Exchange have withdrawn money from productive uses. We find bitter complaints that industry and agriculture have thus been deprived of working capital. It has also been contended that the large demands of the Stock Exchange have forced up the rates of interest on capital for productive purposes. And hopes have been expressed that it will eventually be possible, by restricting credits to the Stock Exchange, to cause speculation to collapse and thus release capital for productive uses.

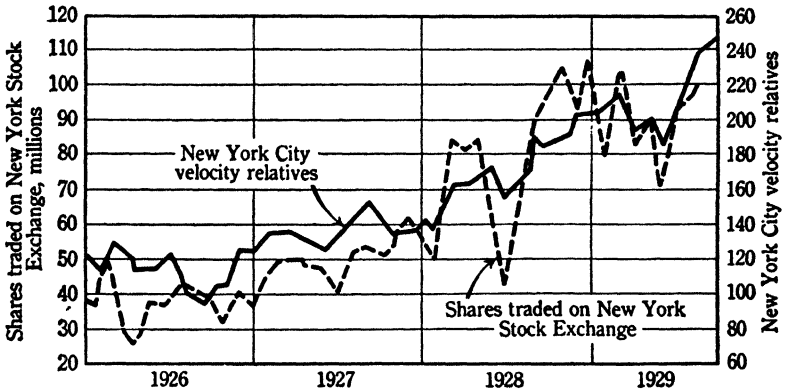
This whole view is in reality devoid of any foundation. If the New York member banks increased their loans to the Stock Exchange, in round figures, from three milliard dollars [$3,000,000,000] in July 1927 to four and a half milliard dollars in June 1928, this by no means signifies that the enormous sum of one and a half milliard dollars has been withdrawn from industry and commerce. Viewed in the rough, what has happened is merely this, that speculators have borrowed one and a half milliard dollars in order to buy securities on the New York Stock Exchange, but that exactly the same sum has gone to the sellers of those securities, and has thus been placed at the disposal of the real capital market.[1]

At the other extreme is the view of Dr. B. M. Anderson, who replies to Professor Cassel's stand as follows:

This argument is shot through with fallacies. An increase in commercial bank loans, of whatever kind, whether stock market loans, commercial loans, real estate mortgage loans, or loans of any other kind, tends to reduce the ability of the banks to make other loans, and tends to raise rates of interest to other borrowers. The point is that when a bank makes a loan, it must either pay out cash from its reserves, reducing its ratio of reserves to deposits, or else increase its deposits, which again reduces the ratio of reserves to deposits, though at a less rapid rate. With declining reserve ratios, interest rates rise. Stock market loans have precisely the same effect here that any other loans have. Interest rates in the United States today would undoubtedly be a great deal lower for all purposes than they now are if four or five billion dollars of deposits were cancelled in the process of liquidating four or five billion dollars of bank loans against securities.[2]

[1] *Skandinaviska Kreditaktiebolaget Quarterly Report*, October, 1928, p. 58.
[2] *The Chase Economic Bulletin* (May 8, 1929), Vol. IX, No. 3, p. 15.

Professor Reed has been one of the leading American exponents of the theory that the security markets do not absorb funds.[1] He supports his position primarily by citing the fact that an increase in brokers' loans is primarily due to an increase in the "velocity" of circulation of funds in the financial centers. The following chart illustrates the parallel movement:



THE VELOCITY OF BANK DEPOSITS IN NEW YORK CITY COMPARED WITH THE NUMBER OF SHARES TRADED ON THE NEW YORK STOCK EXCHANGE, 1926–1929

The argument advanced is that a more active security market merely causes an existing volume of funds to be used more frequently. For example, a four-million-share day on the New York Stock Exchange might mean that some shares had been bought and sold many times within the day rather than that four million separate share transactions took place. But the question might be asked whether or not, even though the stocks used in the market were used more frequently, some funds might not still be taken from business and industry to provide for the "necessary working capital." If funds were absorbed in the New York security market from the outside, would it not be true that the deposits in New

[1] *Federal Reserve Policy, 1921–1930.* McGraw-Hill Book Company. Among others who hold the same view are Professor James Harvey Rogers, of Yale, and Dr. W. J. Eiteman, of Albion College.

York City banks would be increased? Light on this question is supplied by the figures of the following table:

PERCENTAGES THAT TOTAL TIME AND DEMAND DEPOSITS OF NEW YORK CITY BANKS WERE OF THE TOTAL DEPOSITS OF ALL REPORTING MEMBER BANKS [1]

MONTH	1927	1928	1929
January	31.9	32.7	32.9
February	31.2	32.3	33.3
March	31.5	32.2	33.5
April	31.5	32.6	33.6
May	31.2	32.7	33.7
June	32.6	32.3	34.2
July	32.1	32.0	33.6
August	31.9	31.5	33.9
September	31.7	31.5	34.2
October	31.6	31.1	34.7
November	32.2	32.0	
December	32.5	32.1	

Thus it will be seen that the percentages which the time and demand deposits of the New York City banks were of the total deposits of all reporting member banks remained at approximately the same level throughout the period.

Regulation of Security Issues and Security Markets. There was almost no security regulation of any kind in this country before 1911. Our general philosophy was that the purchaser ought to exercise whatever discrimination was necessary in order to protect his own best interests. This, in general, was in keeping with our attitude of rugged individualism and with the theory that a man's money was his own to be used in any way he saw fit, so long as his actions did not harm others. In 1911 the state of Kansas passed the first "blue-sky" law. The only regulation prior to that time, if it may be called a regulation at all, was that the mails could not be used to defraud. Blue-sky laws were passed by many of the other states in turn, until at the present time all parts of the country except Delaware and the District of Columbia

[1] Monthly averages of weekly figures were used to obtain the percentages.

have such regulations. The primary purpose of blue-sky laws is to protect the investor against unscrupulous promoters who might organize a corporation with an enormous amount of issued capital stock, but with very little or no assets, sell the securities, and then depart. The name arose from its being said that these fly-by-night promoters capitalized their corporations out of the blue sky, which caused them to be called "blue-sky merchants."

The two principal provisions of such laws are the following: they require investment houses and security dealers to apply to a state securities commission for a license, and they also require them to notify the commission of any issues which they expect to sell, with detailed information regarding them.

There are a number of reasons why the blue-sky laws have proved ineffective in preventing the issuance of fraudulent securities; among them are the difficulty of clearly defining what constitutes a fraud, the fact that state laws apply only within their own boundaries, and the fact that there was no national jurisdiction over corporate formation. As a consequence a Federal blue-sky law has been suggested, and since the advent of the New Deal two very definite laws dealing with the marketing of securities have been passed.

The Securities Act of 1933. The first of these laws was passed on May 27, 1933, to become effective on July 1, 1933. The chief precedent for the passing of such a law was the English Companies Act. We went farther, however, than the English law in placing liability upon persons connected with the issuance of securities. Our former philosophy of "Let the buyer beware" seemed to be changed by this law to "Let the seller beware." The principal provisions of the Securities Act are the following[1]:

1. It is unlawful to offer for sale any security (securities in existence before July 1, 1933, of course, are not affected) not registered with the Federal Trade Commission. The registration statement must contain the names of all persons concerned with the issue and the amount of their interest in the issuing company; the capitalization of the issuing company; the proposed price and expenses of this and previous issues;

[1] The full text of the Federal Securities Act of May, 1933, can be found in the *Commercial and Financial Chronicle* of June 3, 1933.

and financial statements of the issuing company. In all, there are thirty-two different statements which must be filed with the Federal Trade Commission by any group issuing securities which fall under the provisions of this act.

2. If there is any inaccuracy or omission in the registration statement, the commission may notify the applicant and allow an opportunity for a hearing. If no action is taken within ten days, the commission may suspend the effectiveness of the application. (All statements must be filed with the commission twenty days before the issue may be offered for sale.)

3. If the statement is later found to be inaccurate or incomplete, the purchaser may sue the corporation, its officers, or its directors. If the inaccuracy can be traced to the accountants or engineers of the corporation, they are likewise liable. Any individual, however, may be cleared of liability if he can prove "good intent" and "belief" in the accuracy of the statement. The corporation, however, as a separate entity, is still liable. The purchaser has no recourse if he was aware of the inaccuracy at the time of the purchase.

4. Any person willfully violating the act is criminally liable to a fine of not more than $5000 or to imprisonment for five years or both.

5. Among the securities which do not fall under the regulation of this act are railroad securities (these are regulated by the Interstate Commerce Commission), and government, state, and municipal securities.

President Roosevelt expressed his satisfaction over the enactment of this bill and said:

It gives me much satisfaction to sign the Rayburn-Fletcher Securities Bill, and I know I express national feeling in congratulating Congress on its passage. For this measure at last translates some elementary standards of right and wrong into law. Events have made it abundantly clear that the merchandising of securities is really traffic in the economic and social welfare of our people.

Such traffic demands the utmost good faith and fair dealing on the part of those engaged in it. If the country is to flourish, capital must be invested in enterprise. But those who seek to draw upon other people's money must be wholly candid regarding the facts on which the investor's judgment is asked.

To that end this bill requires the publicity necessary for sound investment. It is, of course, no insurance against errors of judgment. That is the function of no government. It does give assurance, however, that,

within the limit of its powers, the Federal Government will insist upon knowledge of the facts on which alone judgment can be based.

The new law will also safeguard against the abuses of high pressure salesmanship in security flotations. It will require full disclosure of all the private interests on the part of those who seek to sell securities to the public.

The act is thus intended to correct some of the evils which have been so glaringly revealed in the private exploitation of the public's money. This law and its effective administration are steps in a program to restore some old-fashioned standards of rectitude. Without such an ethical foundation, economic well-being cannot be achieved.

Almost immediately after the passage of this bill a great deal of criticism arose against its provisions. The investment bankers, who in general are charged with the floating of the new corporate-security issues, stated that they were not willing to assume the risk which was necessary if they were to sell new issues. Whether or not this feature is responsible for the extremely low volume of securities floated during the year 1933 is not entirely clear, but the fact remains that new capital flotations almost dried up.

AVERAGE MONTHLY VOLUME OF NEW CORPORATE SECURITIES ISSUED FROM 1925 TO 1933 (IN MILLIONS OF DOLLARS)

1925 395	1928 651	1931 216
1926 442	1929 835	1932 54
1927 610	1930 456	1933 14

Proponents of the bill felt that the investment bankers were merely trying to discredit the Securities Act by attributing to it the dearth of new security flotations, whereas the real cause of the dearth was that during the depression period there were few corporations which wished to undertake expansion programs, and even if there had been many, there would have been few purchasers. The opponents of the bill were able, however, to secure an amendment to the Securities Act, which was included in the Securities Exchange Act of June, 1934. This amendment dealt chiefly with the reduction of liability under the Securities Act, and it made the

act more like the English Companies Act. An investment banker, under the conditions of the amendment, is no longer liable for a larger portion of the total issue than that which he alone sells; and directors and officers are not responsible for mistakes which can be directly traced to an accountant or an engineer. The Securities and Exchange Commission which was set up to administer the Securities Exchange Act will administer the Securities Act instead of the Federal Trade Commission.

The second phase of the securities regulation under the New Deal begins with the passage of the Securities Exchange Act in June, 1934. It is important to keep in mind that, although the titles of these two acts are similar, they apply, except for the amendment previously mentioned, to wholly different phases of security regulation.

The Securities Exchange Act. The Securities Exchange Act was not passed until extensive hearings had been held. Investigations of J. P. Morgan and Company during the summer of 1933 were widely publicized, but this was only one phase of the investigating committee's work. As was previously mentioned, several amendments to the Securities Act were included in the Securities Exchange Act, and in addition the administration of the Securities Act was transferred to the commission which was set up to administer the Securities Exchange Act. This commission, charged with the enforcement of the Exchange Act, is known as the Securities and Exchange Commission. It consists of five members appointed by the President, with the advice and consent of the Senate. They must not be actively engaged in business and must not trade on the exchanges so long as they serve on the commission. The principal provisions of the Securities Exchange Act are the following[1]:

1. National, state, and local government issues do not fall under the provisions of the act.

2. No security exchange may use the mails unless it becomes a national security exchange. In order to become a national exchange it must abide by the provisions of the law, and give full information concerning its organization and operation. (This seems to be an indirect method of

[1] The complete text of the Securities Exchange Act can be found in the *Commercial and Financial Chronicle* of June 9, 1934.

inducing security exchanges to register as national security exchanges, but it was probably the most effective constitutional means possessed by Congress to accomplish this end.)

3. All margin requirements are to be determined by the Federal Reserve Board. Congress suggested minimum margin requirements which were only slightly above those generally in force prior to the passage of the act.

4. All manipulation and pooling activities are prohibited. The commission may set up rules governing short selling, stop-losses, floor trading, and the operations of "specialists."

5. All securities listed on the exchanges must be registered with the commission. In order to register with the commission, the corporation must agree to furnish it with complete information, such as information about the remuneration of all officers, directors, and underwriters, and about the amount of bonus payments and other profit-sharing agreements; it must also furnish periodical profit-and-loss statements and balance-sheet information. In general the commission exercises the same control over all listed issues as the Interstate Commerce Commission exercises over railroad issues.

6. To enforce the act effectively the commission has the power to suspend exchanges and likewise to suspend trading in particular issues listed on the exchanges. After hearings, its orders are to be enforced by the Federal courts.

As can be clearly seen from the provisions given above, the primary purpose of the act is to furnish the investor with more complete information concerning the securities which are listed. It is true that the mere ability of the corporation to obtain listing on the exchanges is not certification that the security is free from risk. Investors, however, may secure whatever information the commission possesses by asking for it and paying a nominal fee.

The question still remains, and perhaps always will remain, as to the relative merits of the security-exchange business. Many have referred to the security business as being merely an outlet for the gambling instincts of the market operators. In behalf of the exchanges it must be pointed out that they serve a most useful purpose in our scheme of business organization. The present capitalistic system depends very largely upon the ability to obtain

funds in the open market. The exchanges aid materially in providing this market for long-term securities. All holders of corporate securities are benefited by the ability to convert their securities into cash on very short notice. The holder of the common stock of the American Telephone and Telegraph Company who resides in, say, Seattle may convert his securities into cash almost immediately after placing them in the hands of a broker of that city. Corporations in issuing new securities may sell them directly to the public through the exchanges. Speculators who deal in securities in order to benefit from short turns do help to provide a more active market. In other words, if the last sale of American Telephone and Telegraph stock went through at 110, a holder of these securities has every reason to believe that he may purchase or sell a small number of shares at a price only fractionally different. This, of course, is not always true. It was not true, for example, in the violently declining market of the fall of 1929. But there is usually sufficient volume of trading to prevent wide fluctuations of price in the important issues from one sale to another. Short selling, of course, has contributed to this stability. It still may be debated, however, whether or not the price paid for such stability is too great.

Most observers agree that the wide participation of the public in the "New Era" market was not warranted. Many of the criticisms against the exchanges would apply equally well to horse racing and roulette wheels. It is clear that the security exchanges can and do serve a useful purpose. They, of course, may in addition serve as an outlet to activities which are sometimes referred to as parasitic in nature.

The passage of the Securities Exchange Act in 1934 might lead one to believe that the New York Stock Exchange, particularly, was guilty of irregular practices. Such a view would be far from the truth. The New York Stock Exchange has done more perhaps than any other organization in the United States to keep security trading on a high plane. The supervision exercised by the New York Stock Exchange over all its listed companies was more thorough than that of any other agency before the passage of the act. There were certain very definite standards which had to be main-

tained by all corporations that wished to have their securities listed on the exchange. These standards were so high that many companies could not qualify for listing and others refused to list their securities rather than undergo the scrutiny of the exchange.

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CHAPTER XXVIII

NONCOMMERCIAL BANKING

The principal discussion of banking in this book relates to commercial banking, to those institutions which take care of the short-term-capital needs of business. In addition to commercial banks, however, there are many other types of institutions which are financial in character and which are usually included in any complete discussion of the banking field. There is, of course, no clear-cut dividing line between the nature of the business done by banks and that done by nonbanking institutions. For example, it may be stretching the meaning of the term "banking" somewhat to include in this chapter a discussion of investment trusts; yet investment trusts and commercial banking are closely related.

One difficulty in discussing noncommercial banking institutions as separate units is that many of their functions have been taken over by the commercial banks. Most commercial banks, for example, have savings or special interest deposits, and in this way they are doing the business of a savings bank. Before the Bank Act of 1933 most of the larger commercial banks had investment affiliates, and in this way they were doing an investment banking business. Many state banks are called trust companies, and, though there are some duties which only these banking institutions are allowed to perform, in most cases the so-called trust company's principal business is the same as that of a national or state bank — granting short-term loans and hence creating deposits. In one of our Western states there are a number of banks which are known by name as savings banks, although they are in every sense of the word commercial banks. In the eastern part of the United States, however, the savings-bank business is carried on primarily by institutions bearing that name and doing exclusively a savings-bank business.

The following are the principal types of noncommercial institutions which will be discussed in this chapter:

Savings banks
Trust companies
Investment banks
Agricultural credit agencies
Private banks
Building and loan associations
Investment trusts
Commercial-paper and acceptance houses
Industrial banks
Labor banks
Credit unions

In addition there are the stock exchanges, which are discussed in a separate chapter, and it is conceivable that one might wish to include insurance companies, Edge Act corporations, and finance companies. The line, however, must be drawn somewhere in order to prevent the discussion from becoming too long; therefore only the list of noncommercial banking institutions given above will be discussed in this chapter.

Savings Banks. Savings banks accept deposits of small amounts, and, by collecting a large number of these small sums together and investing them in high-grade securities, they are able to pay interest to their depositors. Unlike commercial banks they do not grant loans except on mortgages and long-term securities, and they do not attempt to create more deposits than the actual cash sums which have been deposited with them. The savings bank, therefore, acts as an intermediary for the thrifty person of small means. In New York State, for example, an individual savings deposit must not exceed $7500, having been raised from $5000 in 1926 and $3000 in 1920. Most states have similar regulations.

After collecting these small sums together, the savings banks cannot invest them as they see fit, for they must keep within the boundaries of the investments prescribed by law. The securities outlined by the laws regulating the investments of savings banks have come to be known as "legals." The laws of the states of New York and Massachusetts have served as models for most of the other state laws. "Legals" in New York State comprise the following groups of securities, and only these securities may be included in the investment portfolios of savings banks [1]:

[1] W. H. Steiner, *Money and Banking*, pp. 438–440. Henry Holt and Company.

1. Bonds of the United States.
2. Municipal bonds.
   a. Bonds of New York State and of other states which have not defaulted within ten years on debt incurred after 1878.
   b. Bonds of political subdivisions in New York State.
   c. Bonds of counties and incorporated municipalities in states adjoining New York having 10,000 population and not having defaulted within 25 years.
   d. Bonds of counties and cities, located in states whose bonds are legal, having 30,000 population and incorporated for 25 years, and not having defaulted within 25 years. If place has less than 45,000 population, it must have power to levy unlimited taxes on real property. A debt limit of 12 per cent of valuation of real property is set for cities in (*c*) and (*d*), and five per cent for counties, unless assessed valuation is $200,000,000, population is 150,000, and it has power to levy unlimited taxes on real property. Bonds of school districts included in (*c*) and (*d*).
3. Railroad bonds.
   a. Certain classes only — direct mortgage, first mortgage on terminal or depot, equipment trust obligation, or collateral trust obligation secured by equal face amount of legal rail obligations.
   b. Meeting certain tests:
      1. Operating 500 miles of road or having $10,000,000 operating revenues in five out of six last years.
      2. Income 1½ times fixed charges in five out of last six years and in last year, and either dividends paid equal to one-fourth fixed charges in five out of last six years, or, if not paid, income 1½ times fixed charges in nine out of last ten years and in last year.
      3. No default in six years on mortgage debt.
   c. Other assumed or guaranteed bonds, secured or unsecured, if income in five out of six last years and in last year equal to two times fixed charges, net income after charges $10,000,000, and dividend and principal and interest payments made as required above.
4. Public utility bonds.
   a. Classes of companies — electric, gas and telephone — 75 per cent of gross operating revenues from electricity or gas, if not a telephone company.

b. Meeting certain tests:

1. Franchise indeterminate or expiring five years after bonds mature.
2. Eight years old and no default in last eight years.
3. First or refunding mortgage.
4. Net earnings for last five years two times interest, and earned four per cent on a sum equal to two-thirds funded debt.
5. Gross operating revenues averaged $1,000,000 for last five years and minimum size of issue $1,000,000 ($5,000,000 in each case for telephone companies).
6. Capital stock two-thirds of mortgage debt.
7. Principal of bonds and all underlying bonds not in excess of 60 per cent of value of physical property on books.

5. Land bank bonds.
   a. Bonds of the Savings and Loan Bank of the State of New York (prior to 1932, termed Land Bank of the State of New York).
   b. Federal farm loan bonds issued by the Federal land bank of the first district.
6. "Bonds and mortgages" on real estate in New York State.
   a. First mortgages not exceeding 60 per cent of appraised value of improved and 40 per cent of unimproved and unproductive property.
   b. May buy mortgage loans guaranteed by a title company; country banks thus lend in New York and other large cities because of the scarcity of local loans.
7. Promissory notes payable to the savings bank.
   a. For 90 per cent of marketable collateral of the kinds the bank itself may purchase.
   b. On demand to a New York savings and loan association that has been incorporated three years and has $50,000 capital.
   c. For 90 days and for 75 per cent of the value of a pledged first mortgage on New York real estate eligible for purchase by the bank itself.
   d. For 90 days and 100 per cent of the amount due, on the pass book of any New York savings bank.
8. Bankers acceptances and bills of exchange.
   a. Eligible for purchase by a Federal Reserve bank.
   b. Accepted by a national bank located in New York or by a New York state banking institution.

Savings banks are of two general types, mutual and stock. The principal characteristic of a mutual savings bank is that it has no owners other than its depositors, and in that sense it is a non-profit-making institution. If there are earnings above the interest rate paid to depositors, these earnings will be returned to the depositors in the form of a higher interest rate, or else paid into a surplus fund in order to take care of "lean" years or extraordinary losses. The management of a mutual savings bank is self-perpetuating. The original trustees who organized the bank provided for a continuing trusteeship by authorizing existing trustees to elect new trustees to fill whatever vacancies occur during the life of the bank.

A stock savings bank is operated on the same basis as any other corporation; that is, it has stock, and the stockholders control the bank in addition to sharing its earnings. In 1915 there were 1529 stock savings banks, mostly in Iowa, with deposits of $857,000,000, as against only 630 mutual savings banks, with deposits amounting to almost $4,000,000,000. Since that time, however, the number of stock savings banks has steadily declined, while the number of mutual savings banks has remained about the same. At the close of 1933 there were approximately 200 stock savings banks, with deposits amounting to $800,000,000, and there were 581 mutual savings banks, with deposits of almost $10,000,000,000. The importance of mutual savings banks may be seen when it is pointed out that their deposits amount to a little more than a fifth of the total deposits of all banks in the United States.

There have been very few failures of mutual savings banks in the United States. During the last ten years, when so many commercial banks have failed, the record of the mutual savings banks has been especially noteworthy. The majority of the mutual savings banks are located in New England and in New York State.

As at the close of 1933 the principal assets of the savings banks of New York State were divided as shown on page 629. Mortgages are the principal assets of savings banks, making up approximately 59 per cent of the total investment of the New York savings banks, as of the close of 1933. Bonds of various sorts made up an additional 32 per cent of the total investments.

PERCENTAGE DISTRIBUTION OF THE PRINCIPAL ASSETS OF NEW YORK SAVINGS BANKS (AS OF DECEMBER, 1933)

Cash and due from banks	3.9
Mortgages	58.6
Bond investments	
United States securities	6.6
State and municipal	9.6
Railroads	12.7
Public utilities	2.4
Other bonds	.8
Banking houses and real estate	3.7
Other assets	1.7
	100.0

Savings banks may require their depositors to give advance notice before withdrawing their deposits. In New York State, for example, the savings banks may require thirty days' notice, but they have never resorted to the use of this privilege, because if one bank were to use it while the others did not, all depositors of this bank would immediately serve notice that they wished to withdraw their deposits, and the bank would consequently suffer a heavy run at the end of the thirty days. For all practical purposes deposits in savings banks may be withdrawn on demand; but if withdrawals are made on other than interest-paying dates (most savings banks pay interest quarterly), the depositors will lose the amount of the interest from the last interest-paying date.

Postal Savings System. Very closely connected with the business done by the savings banks in the United States is the business done by the postal savings system. Since 1910 the government, through the agency of its post offices, has been willing to accept small sums from individuals for safekeeping. The postal savings system is administered by a board of trustees, consisting of the Postmaster General, the Attorney General, and the Secretary of the Treasury.

Postal savings certificates are issued in fixed denominations from $1 to $500. Deposits may not exceed $2500, and the depositor receives 2 per cent interest on his funds. Deposits may be withdrawn upon demand. Of the total deposits of the postal savings system 5 per cent are kept in the Treasury of the United

States as a cash reserve, and the balance may be invested by the board of trustees in United States bonds, or deposited in banks qualifying as depositories for United States funds. In order to qualify, such depository banks must pledge specific types of United States bonds with the Treasury as security. Postal savings deposits, therefore, are as safe as United States bonds.

Between July, 1930, and July, 1933, the volume of postal savings in the United States increased from $181,000,000 to $1,179,000,000, an increase of approximately 550 per cent. This tremendous increase was no doubt due to the unrest created by the large volume of commercial-bank failures during the period. There are cases during this period of deposits being withdrawn from commercial banks and deposited with the postal savings system, which, in turn, redeposited them in commercial banks, thereby preventing any embarrassment to the commercial banks. The depositor, however, secured government guaranty of his funds.

Trust Companies. Trust companies originated in the United States as highly specialized institutions performing a variety of fiduciary functions distinct in nature from the operations of the commercial banks. Most so-called trust companies in the United States, however, have engaged so extensively in commercial banking operations that in most respects they are now commercial banks, performing trust duties as a minor function. On June 30, 1933, there were 1029 trust companies in the United States, with resources of approximately $12,000,000,000. Some of the largest banks in the country are trust companies, such as the Guaranty Trust Company of New York.

The fiduciary functions performed by trust companies may be summarized as follows[1]:

I. Trusts.
  A. For individuals.
    1. Executorships and administratorships.
    2. Testamentary trusts (appointed by will).
    3. Court trusts (appointed by court).
    4. Voluntary or living.

[1] W. H. Steiner, *Money and Banking*, pp. 487–489. (A number of Steiner's subheadings have been omitted.)

B. For corporations.
1. Trustee for bondholders under deeds of trust and corporate mortgages.
2. Trustee for voting trusts.
3. Trustee under reorganization plans, receiverships, etc.

C. For individuals or corporations.
1. Receiver.
2. Assignee.
3. Trustee by deed of trust for any lawful purpose, such as under real estate deed.

II. Agencies.

A. For individuals or corporations.
1. Depositary or bailee.
2. Attorney in fact.
3. Fiscal agencies

B. For corporations.
1. Transfer agent and registrar of stocks and bonds.
2. Depositary or bailee.
3. Fiscal agencies.

Investment Banks. If the primary function of a commercial bank is to furnish short-time capital to business, then it may be said that the function of investment banks is to furnish business with its long-term-capital needs. A retail shoe store, for example, may wish to increase its stock of shoes for a seasonal demand lasting probably not more than from thirty to sixty days; the usual procedure is for the shoe store to call upon a commercial bank to finance this operation. If, however, a steel corporation wishes to install a new unit involving the purchase of some very expensive equipment, it will no doubt issue stocks or bonds in order to finance this expansion. It is in this latter financing that investment banks are interested

Although an investment bank usually buys the securities directly from the corporation, it is probably accurate to say that the bank merely acts as an intermediary, because it, in turn, sells the securities to the public. Investment banks usually do not operate on a commission basis, because a corporation must have its money in order to carry on its proposed expansion. The public would not care to purchase the securities unless it was sure the project was

going through; so someone must advance the money to the corporation before the securities are finally distributed among investors.

Some people have objected to calling these financial institutions banks, because their deposit business was usually very small; indeed, since the passage of the Bank Act of 1933, investment houses must not accept deposits at all. For this reason it is common to refer to these institutions as investment "houses."

The investment house depends for its profit on the spread between the price at which it purchases securities and the price at which it sells them. There are cases, of course, when investment houses are not able to resell some of the securities which they have purchased, and, with their money thus tied up in unsalable issues, they are limited in the number of new issues which they can buy.

Common terminology refers to the sale of corporate securities by an investment house as "floating" the securities. The volume of securities floated in this country between 1921 and 1934, as reported by the *Commercial and Financial Chronicle*, may be summarized in the following table, which subdivides the total into three general groups — new and refunding, stocks and bonds, and foreign and domestic issues:

CORPORATE SECURITIES ISSUED IN THE UNITED STATES, 1921–1934
(IN MILLIONS OF DOLLARS)

YEAR	TOTAL	NEW CAPITAL	REFUNDING	CORPORATE STOCK	BONDS AND NOTES	FOREIGN	DOMESTIC
1921	4,204	3,577	627	279	3,925	578	3,626
1922	5,236	4,304	931	624	4,612	760	4,376
1923	4,990	4,304	685	736	4,354	360	4,630
1924	6,352	5,593	759	866	5,486	1,245	5,107
1925	7,126	6,220	906	1,311	5,815	1,307	5,819
1926	7,430	6,344	1,086	1,318	6,112	1,350	6,080
1927	9,934	7,791	2,143	1,773	8,161	1,724	8,210
1928	9,912	8,114	1,877	3,627	6,285	1,577	8,335
1929	11,592	10,183	1,409	6,921	4,671	780	10,812
1930	7,677	7,023	654	1,568	6,109	1,134	6,543
1931	4,023	3,116	907	343	3,680	268	3,755
1932	1,721	1,191	530	24	1,697	64	1,657
1933	1,054	710	344	153	901	62	992
1934	2,215	1,420	795	35	2,180	61	2,154

There are a number of reasons for the tremendous drop in the volume of corporate securities floated in this country in 1932 and 1933, among which are the following: little need for long-term funds by corporations during periods of rapidly falling business activity, hesitancy on the part of the investing public to purchase securities of any kind, and the Securities Act, which became effective July 1, 1933. The drop in the volume of stock issues and foreign issues is especially noteworthy. During 1934, which was the first full year of the operation of the Securities Act, the volume of corporate securities issued was greater than in 1932 and 1933. Most of the 1934 securities were bonds and notes.

Investment houses may be divided into two general groups, wholesale and retail. Probably the best-known wholesale investment house in the United States is J. P. Morgan and Company, while Kuhn, Loeb and Company is one of the older wholesale houses which has specialized in railroad securities. So active have these investment houses been in the formation of new companies that one frequently hears certain railroads called "Kuhn, Loeb" railroads, such as the Pennsylvania Railroad, or one hears of a "Morgan" utility, such as United Corporation. These wholesale houses sell very few securities directly to the public; rather they sell them in large blocks to smaller, retail investment houses. In the case of "home" enterprises, the smaller local investment house usually floats the entire issue.

Another common term used in connection with security flotations is "underwriting syndicate." Without becoming too technical, we may say that in general an underwriting syndicate is a combination of investment houses which get together for the purpose of floating an issue of corporate securities, the number of houses forming the combination varying normally from four to twelve. Usually one of the investment houses acts as the manager for the syndicate. Although syndicates are formed on many different bases, each participant generally agrees to be accountable for a certain proportion of the issue.

As was previously pointed out when discussing the Bank Act of 1933, investment houses can no longer accept deposits. As a consequence of this legislation some of the former investment

houses have now become private banks. J. P. Morgan and Company, for example, will continue to accept deposits, and will therefore have to give up its security-floating business, while Kuhn, Loeb and Company decided to drop its deposit business and to continue in the security business.

Agricultural Credit Agencies. The commercial banking system of this country is not designed to aid agriculture, because farmers need funds for longer periods than the commercial banks consider wise. Between 1863 and 1913 national banks were not allowed to grant loans on real estate. The Federal Reserve Act allowed national banks to grant loans on real estate under very limited conditions, and these conditions were broadened in the McFadden-Pepper Act of 1927. Savings banks, insurance companies, building and loan associations, and mortgage companies have been the principal agencies lending on real estate. The growing season for many agricultural crops is from six to nine months. In the Federal Reserve Act a special concession was made to the farmer by allowing nine months' agricultural paper to be eligible for rediscount. Eligible commercial paper could not have a maturity which exceeded ninety days. A member bank, therefore, could grant a loan to a farmer for nine months and in turn rediscount it with the Federal Reserve System, if it so desired. The Federal Reserve Act also aided the farmer by providing a market for the sale of acceptances arising out of the financing of readily marketable agricultural products. These acceptances were secured by warehouse receipts, and their purpose was primarily to bring about more orderly marketing throughout the year, so that the entire crop would not have to be dumped on the market at the end of the harvest period.

In addition to this aid from the Federal government, special agencies were provided for the purpose of granting loans to farmers, the first important one of which was the Federal Farm Loan System of 1916. Only a summary statement of the agencies created before 1933 will be given at this point because of the consolidation of all agricultural credit agencies in the spring of that year. Between 1916 and 1933 there were three agencies created primarily for the purpose of extending credit to agriculturists.

These agencies were (1) the Federal Land Banks, 1916; (2) the Joint-Stock Land Banks, 1916; (3) the Federal Intermediate Credit Banks, 1923.

Federal Farm Loan Board. The governing board of these agencies was the Federal Farm Loan Board, which consisted of six members appointed by the President, with the advice and consent of the Senate. In addition the Secretary of the Treasury was an ex-officio member and served as the chairman of the board. Not more than three of the appointed members could be members of the same political party, and one was designated by the President as the Farm Loan Commissioner, who was the active executive officer of the board.

Federal Farm Board. The Federal Farm Loan Board is not to be confused with the Federal Farm Board, which was created under the terms of the Agricultural Marketing Act of June 15, 1929, upon the recommendation of President Hoover. The Federal Farm Board consisted of eight members appointed by the President, together with the Secretary of Agriculture, who was an ex-officio member. The government furnished the Federal Farm Board with an initial revolving fund of $500,000,000. The primary purpose of the Federal Farm Board was to take steps to stabilize the prices of agricultural products and to make a study of cooperative-marketing problems. In order to do this the board created several agencies, the most important of which were the Grain Stabilization Corporation, to handle its wheat-stabilizing operations, and the Cotton Stabilization Corporation, to handle its activities designed to stabilize the price of cotton. These corporations bought up large supplies of wheat and cotton in an effort to bring about higher prices for these commodities. Their operations, which were carried on primarily in 1930 and 1931, were most unsuccessful, and both corporations have now been abolished. The Federal government is now using other methods to increase the prices of agricultural products.

Farm Credit Administration. President Roosevelt issued an executive order effective May 27, 1933, merging all the various farm-credit agencies into the Farm Credit Administration. His order was as shown on pages 636-638.

1. The functions of the Secretary of Agriculture as a member of the Federal Farm Board, and the offices of the appointed members of the Federal Farm Board, except the office of the member designated as chairman thereof, are abolished.

2. The name of the Federal Farm Board is changed to the Farm Credit Administration.

3. The name of the office of Chairman of the Federal Farm Board is changed to Governor of the Farm Credit Administration, and he is vested with all the powers and duties of the Federal Farm Board.

4. The functions of the Secretary of the Treasury as a member of the Federal Farm Loan Board, and the offices of the appointed members of the Federal Farm Loan Board, except the office of the member designated as Farm Loan Commissioner, are abolished, and all the powers and functions of the Federal Farm Loan Board are transferred to and vested in the Farm Loan Commissioner, subject to the jurisdiction and control of the Farm Credit Administration as herein provided.

5. There are transferred to the jurisdiction and control of the Farm Credit Administration:

a. The Federal Farm Loan Bureau and the functions thereof; together with the functions of the Federal Farm Loan Board, including the functions of the Farm Loan Commissioner;

b. The functions of the Treasury Department and the Department of Agriculture, and the Secretaries thereof, under Executive authorizations to give aid to farmers, dated July 26, 1918, and any extensions or amendments thereof;

c. The functions of the Secretary of Agriculture under all provisions of law relating to the making of advances or loans to farmers, fruit growers, producers, and owners of livestock and crops, and to individuals for the purpose of assisting in forming or increasing the capital stock of agricultural-credit corporations, livestock-loan companies, or like organizations, except Public Resolution No. 74, Seventieth Congress, approved Dec. 21, 1928, providing for the Puerto Rican Hurricane Relief Commission;

d. The Crop Production Loan Office and the Seed Loan Office of the Department of Agriculture, and the functions thereof;

e. The functions of the Reconstruction Finance Corporation and its board of directors relating to the appointment of officers and agents to manage regional agricultural credit corporations formed under section 201 *e* of the Emergency Relief and Construction Act of 1932; relating to the establishment of rules and regulations for such management; and

relating to the approval of loans and advances made by such corporations and of the terms and conditions thereof.

6. The functions vested in the Federal Farm Board by section 9 of the Agricultural Marketing Act are abolished, except that such functions shall continue to be exercised to such extent and for such time as may be necessary to permit the orderly winding up of the activities of stabilization corporations heretofore recognized under authority of such section, and the Governor of the Farm Credit Administration shall take appropriate action for winding up at the earliest practicable date the activities of such corporations and all affairs related to the exercise of such functions.

7. The records, property (including office equipment), and personnel used and employed in the execution of the functions hereinbefore transferred are transferred to the jurisdiction and control of the Farm Credit Administration.

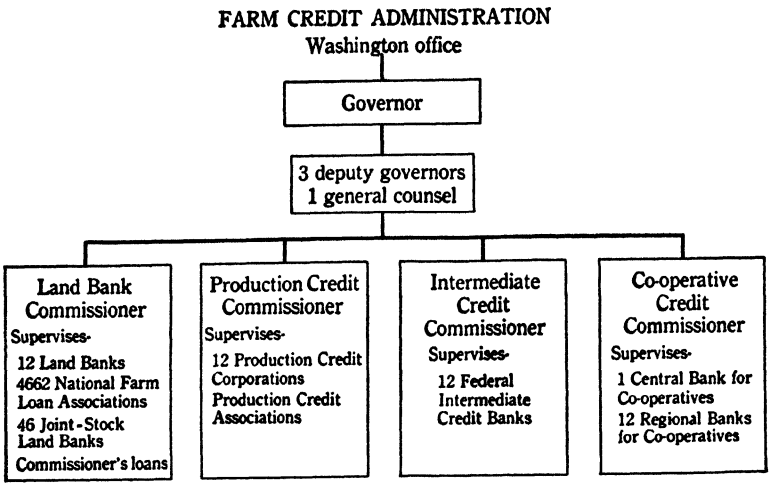
8. The sum of $2,000,000 of the unexpended balances of appropriations made to the Federal Farm Board by Public Resolutions No. 43 and No. 51 of the Seventy-second Congress shall be impounded and returned to the Treasury, which sum shall be in addition to the other savings to be effected by the Farm Credit Administration as a result of this order.

9. The unexpended balances of appropriations to the Secretary of Agriculture, the Federal Farm Loan Bureau, and the Federal Farm Board for salaries, expenses, and all other administrative expenditures in the execution of the functions herein vested in the Farm Credit Administration shall be transferred to and vested in the Farm Credit Administration as a single fund for its use for salaries, expenses, and all other administrative expenditures for the execution of any or all of such functions without restriction as to the particular functions for the execution of which the same were originally appropriated.

All other appropriations, allotments, and other funds available for use in connection with the functions and executive agencies hereby transferred and consolidated are hereby transferred to and vested in the Farm Credit Administration, and shall be available for use by it, for the same purposes as if the Farm Credit Administration were named in the law or authority providing such appropriations, allotments, or other funds.

10. All power, authority, and duties conferred by law upon any officer, executive agency, or head thereof, from which or from whom transfer is hereinbefore made, in relation to the executive agency or function transferred, are transferred to and vested in the Governor of the Farm Credit Administration.

11. The Governor of the Farm Credit Administration is directed to



NATIONAL ORGANIZATION

dismiss, furlough, transfer, or make other appropriate disposition of such of the officers and employees under his jurisdiction and control as are not required for the proper execution of the functions of the Farm Credit Administration.

12. The Governor of the Farm Credit Administration is authorized to execute any and all functions and perform any and all duties vested in him through such persons as he shall by order designate or employ.

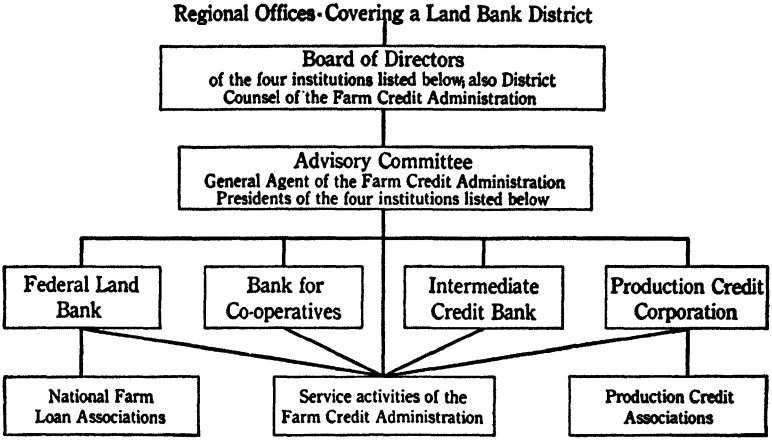
13. The Governor of the Farm Credit Administration, by order or rules and regulations, may consolidate, regroup, and transfer offices, bureaus, activities, and functions in the Farm Credit Administration, so far as may be required to carry out the purposes to which this order is directed, and may fix or change the names of such offices, bureaus, and activities and the duties, powers, and titles of their executive heads.

This order shall take effect upon the sixty-first calendar day after its transmission to Congress unless otherwise determined in accordance with the provisions of section 407 of the act cited above, as amended.

FRANKLIN D. ROOSEVELT

The White House, March 27, 1933

The Farm Credit Administration is headed by a governor, three deputy governors, and four commissioners. The commissioners are directly responsible to the governor, and are in charge of supervising specific activities, as follows:



REGIONAL AND LOCAL ORGANIZATION

1. The Land Bank Commissioner is responsible for the supervision of Land Banks and the Joint-Stock Land Banks, and is in charge of commissioner's loans.

2. The Intermediate Credit Commissioner is responsible for the supervision of the twelve Intermediate Credit Banks.

3. The Production Credit Commissioner is responsible for the supervision of the Production Credit Associations and the twelve Production Credit Corporations.

4. The Co-operative Credit Commissioner is in charge of the Central Bank for Co-operatives, located in Washington, D. C. There are likewise twelve regional banks for co-operatives.

Mr. Henry Morgenthau, Jr., was designated by President Roosevelt as the first governor of the Farm Credit Administration, and after he was made Secretary of the Treasury, Dr. W. I. Myers, formerly professor of agricultural economics and farm management at the New York State College of Agriculture, became governor. Under this organization the Federal Land Banks, Joint-Stock Land Banks, and Intermediate Credit Banks have the same powers as formerly and are subject to the same regulations, but they are now supervised by the Farm Credit Administration. The Federal Farm Loan Board was abolished.

The Production Credit System and the banks for co-operatives were created by the Farm Credit Act of 1933. Professor Garis has aptly shown this unified Federal organization for financing agriculture in the graphs shown on pages 638 and 639.[1]

The four principal agencies operating under the supervision of the Farm Credit Administration will be discussed in order. The first group includes the Federal Land Banks, the National Farm Loan Associations, and the Joint-Stock Land Banks.

Federal Land Banks. Under the provisions of the Federal Farm Loan Act of July 17, 1916, the newly created Federal Farm Loan Board was instructed to divide the continental United States and Alaska into twelve districts (said districts to be apportioned with due regard to the farm-loan needs of the country, but no such district to contain a fractional part of any state). The twelve Federal Land Banks were organized in the spring of 1917, and were located in the following cities (these cities will give a rough indication of the territory which each bank serves):

1. Springfield, Mass.
2. Baltimore, Md.
3. Columbia, S.C.
4. Louisville, Ky.
5. New Orleans, La.
6. St. Louis, Mo.
7. St. Paul, Minn.
8. Omaha, Nebr.
9. Wichita, Kans.
10. Houston, Tex.
11. Berkeley, Calif.
12. Spokane, Wash.

Each Federal Land Bank had to have an initial capital of at least $750,000, which was to be furnished by the government. As the banks received stock subscriptions from the National Farm Loan Associations and individuals, the government stock was to be retired. At the present time most of the $9,000,000 originally subscribed by the government has been paid off. In addition to the funds which the Land Banks received from their capital subscriptions, they may issue bonds and sell them to the public, using the mortgages which they have taken in as security. The amount of bonds which any Federal Land Bank may issue is limited

[1] R. L. Garis, *Principles of Money, Credit, and Banking*, p. 1009. The Macmillan Company. Professor Garis's treatment of the agricultural banking system is very complete. See Chapter 29, "Our Agricultural Banking System," pp. 999–1045. An even more complete treatise on the subject of farm credit agencies is a recent book published by the American Institute of Banking, *Farm Credit Administration*, written by W. I. Myers, governor of the Farm Credit Administration.

to twenty times its capital and surplus, and although the twelve Federal Land Banks are jointly liable for these bonds, the government assumes no liability for the payment of either interest or principal. Under an amendment to the Federal Farm Loan Act, passed in January, 1932, it became "the duty of the Secretary of the Treasury on the behalf of the United States, upon the request of the board of directors of any Federal Land Bank made with the approval of the Federal Farm Loan Board, to subscribe from time to time for such capital stock of such bank in amount or amounts specified in such approval or approvals, such subscriptions to be subject to call in whole or in part by the board of directors of said bank upon 30 days' notice with the approval of the Federal Farm Loan Board."

Under these provisions the Secretary of the Treasury has appropriated $125,000,000 for the purpose of subscribing to the stock of the Federal Land Banks. In addition to these three methods of obtaining funds (original government subscription, sale of bonds to the public, and the special Treasury subscription), the Federal Land Banks were authorized in 1933 to sell to the public for a period of two years beginning May 12, 1933, a special issue of 4 per cent tax-exempt bonds, in an amount not exceeding $2,000,000,000. Originally the government guaranteed only the interest on these bonds, but President Roosevelt signed a bill on January 31, 1934, which guaranteed the principal too. These special bonds are not to be confused with the regular bonds of the Federal Land Banks, which are not guaranteed by the government as to either interest or principal.

Each Federal Land Bank is governed by a board of directors consisting of seven members, three of whom are appointed by the governor of the Farm Credit Administration to serve for a period of three years. The following organizations, which will be described later, each elect one member, also for a period of three years: the Farm Loan Association, the Production Credit Association, and the regional banks for cooperatives. The seventh director, "at large," is appointed by the governor of the Farm Credit Administration and may be removed by him at any time. The balance of power is thereby clearly placed in the hands of the governor of the Farm Credit Administration.

All loans made by the Federal Land Banks must be on an amortization basis, and must have a maturity of not less than five years, nor more than forty. The borrowers make annual or semiannual payments, which cover the interest in addition to a portion of the principal. Farmers may now borrow directly from the Federal Land Banks (such loans

being known as commissioner's loans) or through the agency of a commercial bank or trust company or through the medium of a National Farm Loan Association. In the original act this last agency was supposed to be the principal means of obtaining aid from a Farm Loan Bank, and there are now some five thousand Farm Loan Associations in the United States.

National Farm Loan Associations. Each National Farm Loan Association is composed of at least ten farmers who wish to borrow not less than $20,000. The associations are chartered by the Land Bank Commissioner of the Farm Credit Administration. All members of an association must be borrowers from a Federal Land Bank, and 5 per cent of the amount of their loan must be subscribed to the stock of the association. The association, in turn, must subscribe to the stock of a Federal Land Bank an amount equal to 5 per cent of the loans which it obtains from that bank. So, in reality, each borrower is required to subscribe 5 per cent of his loan to the capital stock of the Land Bank. Before 1933 the stock assumed double liability, but this is no longer the case, and each stockholder is liable only to the extent of his subscription.

Loans made by the Federal Land Banks are for the following purposes: the purchase of farm land; the purchase of equipment, fertilizer, and livestock for the mortgaged land; improvements; and the liquidation of mortgages incurred prior to January, 1933.

By the act of May 12, 1933, the interest rate on all loans made by the Federal Land Banks was reduced. For the five-year period ending July 11, 1938, all loans coming to the Land Banks through National Farm Loan Associations will bear an interest rate of 4½ per cent, and direct loans made by the Land Banks will bear a 5 per cent rate.

The Emergency Farm Mortgage Act of 1933 enabled the Land Bank Commissioner to make direct loans to farmers. These loans could not exceed $5000 to any one farmer and might be made on real or personal farm property, with either a first or a second mortgage as security. Before this time only first mortgages were acceptable, which is still true of the loans made through the National Farm Loan Associations. Total loans made under this provision could not exceed $2,000,000,000. The amount of any one loan could not exceed 75 per cent of the appraised value of the property. There were 298,719 commissioner's loans outstanding as of the end of September, 1934, totaling $516,276,385.

On September 30, 1934, the capital stock of the Federal Land Banks amounted to $216,380,080, of which $117,874,935 was owned by the United States government, $95,022,780 by National Farm Loan Associa-

tions, and $3,482,365 by farmers with loans direct from the banks. Total farm-loan bonds outstanding amounted to $1,645,370,760, and in addition the Federal Land Banks owed $115,891,884.92 in notes to the Reconstruction Finance Corporation. Total mortgage loans of the twelve Federal Land Banks were $1,789,630,397 on September 30, 1934. The banks owned $96,213,177.10 of United States government obligations, $67,193,697.89 of real estate, and $39,298,017.42 of purchase-money mortgages and contracts, and their total assets amounted to $2,122,824,117.05.

Joint-Stock Land Banks. The act of May 12, 1933, provided for the liquidation of the Joint-Stock Land Banks; so very little space will be devoted to them here. They came into existence at the same time as the Federal Land Banks (1917), but differ from the latter chiefly in that they are entirely privately owned and organized. Each bank had to have a subscribed capital of not less than $250,000. At the close of 1933 there were forty-seven Joint-Stock Land Banks in operation in the United States, the number having declined from a peak of seventy in 1923. The loans made by these banks had maturities of not less than five years and not more than forty years (the same as loans of the Federal Land Banks), and were secured by first mortgages on farm lands. The loans could not exceed 50 per cent of the appraised value of the land plus 20 per cent of the appraised value of the improvements. For the purpose of raising additional funds a Joint-Stock Land Bank could issue bonds, secured by the mortgages taken in, in an amount not to exceed fifteen times its capital and surplus. The interest rate on the loans made to farmers could not exceed by more than 1 per cent the interest rate on the last series of bonds which the Joint-Stock Land Bank issued. Each bank was responsible for its own bonds, and there was no joint liability, as in the case of the Federal Land Banks. In order to provide for the orderly liquidation of these institutions the Reconstruction Finance Corporation has agreed to lend them $100,000,000 at 4 per cent.

The volume of loans made by the Joint-Stock Land Banks reached its peak in 1927, when, as of December 31, $667,344,359 of loans were outstanding. By September 30, 1934, these loans had fallen to $285,085,000, and will naturally continue to decline until all the Joint-Stock Land Banks have been completely liquidated. As of the close of 1933 these banks still had $448,941,420 of their bonds outstanding.

Federal Intermediate Credit Banks.[1] The Agricultural Credit Act of

[1] For a more complete treatment of these banks see Baird and Benner, *Ten Years of Federal Intermediate Credits* (Brookings Institution).

1923 provided for twelve Intermediate Credit Banks to be located in the same cities and in the same buildings with the Federal Land Banks. These banks began with a capital of $5,000,000 each, subscribed by the United States Treasury. They now come under the supervision of the Farm Credit Administration and are directly governed by the Intermediate Credit Commissioner.

The function of the Intermediate Credit Banks, as the name implies, is to grant loans of intermediate maturity to farmers, loans which are too long for commercial banks to make and yet not long enough for the Federal Land Banks. The loans made by the Intermediate Credit Banks may not have a maturity exceeding three years, and are usually for less than one year. The Intermediate Credit Banks do not deal directly with the farmers but rather through the various farm agencies, including livestock and marketing associations. Their loans to co-operative marketing associations are secured by warehouse receipts or other collateral acceptable to the Farm Credit Administration. They can likewise discount, for state and national banks, agricultural credit companies, and livestock loan companies, the notes of farmers whose financial statements and collateral securities are acceptable. The Intermediate Credit Banks are authorized to accept drafts or bills of exchange drawn by any co-operative association on security similar to that which is eligible as collateral for loans. They may rediscount their paper with the Federal reserve banks and likewise sell acceptances to the reserve banks.

The amount of a loan to a co-operative association cannot exceed 75 per cent of the market value of the commodity pledged as collateral, and it usually varies from 60 to 75 per cent. Only certain commodities handled by the co-operative associations are eligible to secure loans from the Intermediate Credit Banks. These commodities include grains, cotton, wool, tobacco, hay, fruits, vegetables, sugar, and evaporated milk.

In addition to the capital raised through government subscription, the Intermediate Credit Banks are allowed to issue debentures having maturities of not more than five years, and under the limitation that no bank shall issue debentures to exceed ten times its paid-up capital and surplus. These debentures are the joint liability of all the Intermediate Credit Banks. The interest rate charged on the loans made by such a bank cannot exceed by more than 1 per cent the rate borne by its last issue of debentures.

As of September 30, 1934, the Intermediate Credit Banks had out-

standing loans of $191,390,681 and total resources of $289,009,239. Their paid-in capital stock aggregated $70,000,000, and they had issued $181,770,000 of debentures. The amount of business done by the Intermediate Credit Banks is decidedly less than that of the Federal Land Banks. The latter banks had loans totaling more than $1,750,000,000, as of the same date.

Production Credit Corporations and Associations. The Farm Credit Act of May 12, 1933, provided for a system of Production Credit Corporations which were to provide production credit to farmers in a manner similar to that of the mortgage credit provided by the Federal Land Banks. Each Production Credit Corporation is located in the same city as the Federal Land Bank of the same district, and the initial capital of each corporation is $7,500,000, all of which is subscribed by the governor of the Farm Credit Administration on behalf of the government. Loans are made through the media of Production Credit Associations. Each of these associations is made up of ten or more farmers desiring to borrow for general agricultural purposes. Each borrower is required to subscribe to the stock of the association to the extent of $5 per $100 borrowed.[1]

The stock of the Production Credit Associations which is held by the borrowers is known as Class B stock. Class A stock is subscribed by the Production Credit Corporations to the extent of at least 20 per cent of the loans made by the associations. The borrowers and the Production Credit Corporations, therefore, provide at least 25 per cent of the volume of loans made, and the remainder is secured from the Intermediate Credit Banks. The Production Credit Associations are authorized to borrow from and rediscount with the Intermediate Credit Banks, but they are denied access to any other bank or agency except with the approval of the governor of the Farm Credit Administration.

No borrower may obtain a loan from an association equal to more than 20 per cent of the paid-in capital and guaranty fund of the association; an exception is made of collateraled loans approved by the Production Credit Corporations. Loans may not be made for less than $50, and may not have a maturity of more than three years, if the associations expect to obtain funds from the Intermediate Credit Banks. An association may set its own interest rate, except that it cannot discount a farmer's note with a Federal Intermediate Credit Bank if the interest

[1] The act states that the borrower's subscription must equal in fair book value as determined by the association, but in any case not to exceed par, $5 for each $100 borrowed.

rate charged the farmer exceeds by more than 3 per cent the discount rate of the Intermediate Credit Bank. The principal differences between the Intermediate Credit Banks and the Production Credit Associations are that the latter agencies lend directly to the farmers and their loans may be used for general agricultural purposes.

The capital stock of the twelve Production Credit Corporations as of September 30, 1934, was $110,000,000. These corporations had, in turn, subscribed to the Class A stock of the Production Credit Associations to the extent of $79,848,575. There were six hundred and twenty-one Production Credit Associations in existence as of the end of September, 1934, and they had outstanding loans amounting to $59,983,342.

Banks for Co-operatives. The Farm Credit Act of 1933 authorized the establishment of a Central Bank for Co-operatives, to be located in Washington, D.C. There is in addition a regional bank for co-operatives situated in each of the twelve Federal Land Bank cities. The initial capital stock for the Central Bank for Co-operatives, which was organized in September, 1933, was $50,000,000, and the law provides that the amount of the capital of the Central Bank and the twelve regional banks for co-operatives shall be determined by the governor of the Farm Credit Administration, who shall use as a guide the credit needs of eligible borrowers. The funds are to be supplied from the revolving fund which was created under the Agricultural Marketing Act of 1929, and the amounts may be increased or decreased from time to time at the discretion of the governor of the Farm Credit Administration. The function of the Central Bank for Co-operatives is to make loans directly to co-operatives, to make loans directly to the national banks, and to discount the paper of the regional banks. Credit extended to co-operative associations by these agencies is for the twofold purpose of (1) bringing about more effective merchandising of agricultural and food products, and (2) providing for the construction or acquisition by purchase or lease of physical facilities for handling, preparing, storing, processing, and merchandising agricultural commodities and their food products. Loans granted for the purpose of providing physical facilities cannot be made when suitable facilities are already available to co-operative associations. Effective merchandising loans are to be paid at the close of the marketing season, and physical-facility loans are to be amortized within a period of ten years. The interest rates on loans are determined by the governor of the Federal Farm Credit Administration, but may not be less than 3 per cent or more than 6 per cent.

In addition to the capital paid in by the government and by co-

operative borrowers, the Central Bank for Co-operatives is authorized to issue debentures, the aggregate amount of which cannot exceed five times its paid-in capital and surplus.

The Central Bank is governed by a board of seven directors, and the Co-operative Bank Commissioner is the chairman of the board and the executive officer of the bank. Each of the twelve regional banks for co-operatives is governed by the same board of directors as the Federal Land Bank of the city in which it is located.

As of September 30, 1934, the Central Bank for Co-operatives had a capital stock of $50,000,000, and had made loans to the twelve regional banks for co-operatives to the extent of $13,370,591. The twelve regional banks had a capital of $5,000,000 each, and had made loans aggregating a little less than $10,000,000, but they had made commitments for almost $5,000,000 more.

Federal Farm Mortgage Corporation. The Federal Farm Mortgage Corporation Act, approved January 31, 1934, established the Federal Farm Mortgage Corporation to facilitate the financing of loans to farmers by the Federal Land Banks and by the Land Bank Commissioner. The capital stock of the corporation is subscribed by the governor of the Farm Credit Administration in behalf of the United States.

The corporation is governed by a board of directors composed of the governor of the Farm Credit Administration as chairman and the Land Bank Commissioner and the Secretary of the Treasury or an officer of the Treasury designated by him. The directors elect the officers of the corporation, and have the power to adopt such bylaws, rules, regulations, and amendments as they deem necessary for the conduct of the business of the corporation.

The corporation, with the approval of the Secretary of the Treasury, may issue, and have outstanding at any one time, bonds in an amount not exceeding $2,000,000,000. These bonds, known as Federal Farm Mortgage Corporation bonds, are fully and unconditionally guaranteed both as to principal and interest by the United States. The corporation had, as of September 30, 1934, capital of approximately $200,000,000, and its resources include the consolidated bonds of the Federal Land Banks taken in exchange for the corporation's bonds, and the farm loans accepted by the Land Bank Commissioner.

Bonds of the corporation are disposed of as follows: first they are issued to the Federal Land Banks in appropriate denominations in exchange for consolidated farm-loan bonds; second they are issued as loan proceeds of Land Bank Commissioner's loans; and third they are sold

to provide the necessary cash to purchase consolidated farm-loan bonds and to supplement bonds enclosing Land Bank Commissioner's loans.

The following table gives the amount of Federal Farm Mortgage Corporation bonds outstanding as of September 30, 1934:

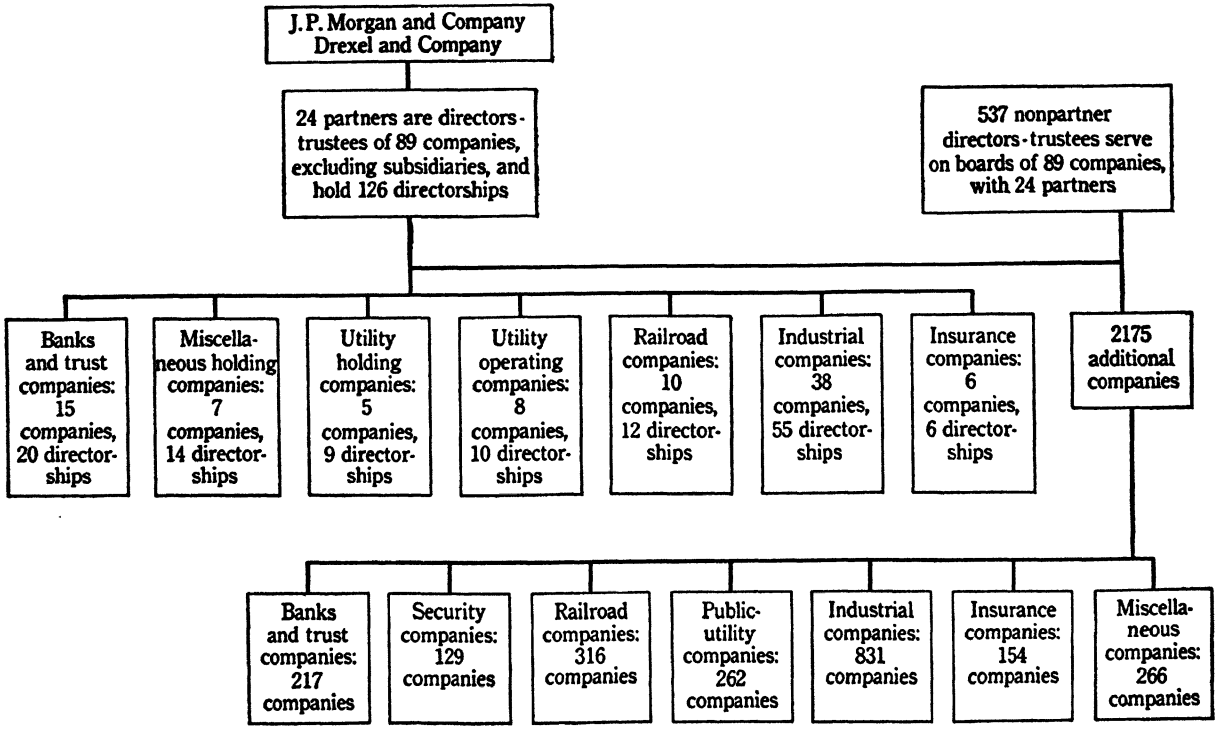
Institutions to and through which Issued	Total
Federal Land Banks	$457,469,300
Federal Intermediate Credit Banks	40,000,000
Banks for co-operatives	50,420,000
Postal savings unit	85,000,000
In hands of investors	100,045,300
	$732,934,600

Private Banks. Private banks differ from public, or incorporated, banks in that they are conducted as an individual or partnership business. Before the Bank Act of 1933, private banks were not subject to state regulations in most states. The two best-known private banks in the United States are J. P. Morgan and Company and Kuhn, Loeb and Company.[1] Since July, 1934, Kuhn, Loeb and Company has no longer been classified as a private bank, but as an investment house. The Bank Act states that any enterprise floating securities must not receive deposits also. J. P. Morgan and Company chose to give up their security-floating business, although Drexel and Company of Philadelphia, a closely affiliated organization, continues in the security business. Kuhn, Loeb and Company elected to relinquish their deposit business.

Sufficient time has not elapsed since the security business was divorced from the private banking business to make it possible to give a general outline of the new and restricted duties of the private banker. During the Senate investigation in the summer of 1933, Mr. J. P. Morgan personally testified as follows:

> If I may be permitted to speak of the firm, of which I have the honor to be the senior partner, I should state that at all times the idea of doing only first class business, and that in a first class way, has been before our minds.
>
> We have never been satisfied with simply keeping within the law,

[1] Both these partnerships were also listed as investment houses in a previous section of this chapter. Before 1934 most of the larger private banks did an investment business in addition to their regular banking business.



CORPORATE RELATIONSHIP OF J. P. MORGAN AND COMPANY AND DREXEL AND COMPANY

but have constantly sought so to act that we might fully observe the professional code, and so maintain the credit and reputation which has been handed down to us from our predecessors in the firm.

Since we have no more power of knowing the future than any other men, we have made many mistakes (who has not during the past five years?), but our mistakes have been errors of judgment and not of principle.

Another most important duty of the private banker is to take special care that his banking position in regard to his deposits is at all times sufficiently strong, knowing as he does that none of the aids provided by the government for incorporated banks, such as the Federal Reserve System or the Reconstruction Finance Corporation, are at his disposal.

The private banker has at least one other duty; he must be ready and willing at all times to give disinterested advice to his clients to the best of his ability. If he feels unable to give this advice without referring to his own interests he must frankly say so. The belief in the integrity of his advice is a great part of the credit of which I have spoken above, as being the best possession of any firm.

Mr. Morgan later went on to testify more specifically as to the functions of private banks, among which he included both the deposit function and the function of providing business with long-term capital.

There is no doubt that the business of J. P. Morgan and Company in the past was predominantly that of floating securities. In addition to merely selling securities for corporations, this partnership has usually taken an active interest in the management of companies whose securities it has floated. This relationship is clearly shown by the chart on page 649, which was prepared by the Senate investigating committee during the summer of 1933.

One of the most interesting features of this outstanding private bank is its partnership agreement, although a knowledge of this is not necessary to the understanding of the private banking business. A number of the provisions follow:

No transaction shall be made which shall be objected to by any member of the partnership.

In case of a difference or dispute between members of the partnership, the same shall be submitted to the decision of Mr. John Pierpont Morgan, which shall be final.

The partnership may be dissolved at any time by Mr. John Pierpont Morgan, subject to the liquidation thereof; provided that partners representing a majority in interest in the profits of the partners shall consent to such dissolution.

It is further agreed that Mr. Morgan may, at any time, compel any partner at once to withdraw and retire from the partnership, upon giving him written notice to that effect, and in that event, the amount due such retiring partner shall be forthwith fixed by Mr. Morgan, and thenceforth the interest of such partner shall be dealt with in the same manner as above provided for in the case of voluntary withdrawal by such partner.

The books of the partnership shall be settled on the 31st of December in each year. One half of each partner's proportion of profits shall be placed to his credit. The other half shall be set aside and kept as undivided profits until such time as Mr. John Pierpont Morgan may consent to its division among the various parties in interest as provided in Article 3. It is also understood that no partner shall draw from the partnership any money beyond the amount placed to his credit, without the consent of the other parties hereto.

It is understood and agreed that no partner shall engage in any other business or be a general or special partner in any other firm.

Speculation in stocks or anything else, by the individual members of the partnership is prohibited; but this clause shall not be construed so as to prohibit any partner from investing his private means in such way as he may see fit.

Building and Loan Associations. The Federal agricultural credit agencies were formed to provide loans for agriculturists; building and loan associations provide a similar service for urban property-owners. These latter institutions, however, are in no way sponsored by the government. They are mutual, co-operative organizations controlled entirely by their members. The first building and loan association was organized in the United States in 1831; but it was not until the World War period that these associations began to increase in a phenomenal fashion, as shown in the table on page 652.

The activities of building and loan associations may be classified under two heads: their activities as savings institutions and their lending operations on real estate.

Year	Number of Associations	Total Number of Members	Total Assets
1900	5,356	1,495,136	$571,367,000
1910	5,869	2,169,893	931,867,000
1920	8,633	4,962,919	2,519,915,000
1925	12,403	9,886,997	5,509,176,000
1930	11,777	12,343,254	8,828,612,000
1931	11,432	11,324,698	8,412,369,000

Building and Loan Associations as Savings Institutions. In connection with its function as a savings institution a building and loan association issues shares to its members. These shares require the payment of regular weekly or monthly sums and receive a compound dividend rate which is determined by the profitableness of the association. The earlier forms of the shares of building and loan associations terminated at a definite date, and at that time an association would go out of existence. On a larger scale and covering a longer period these savings plans are comparable to the yearly Christmas Club fostered by many commercial banks, although Christmas Club accounts sometimes do not pay interest. Later, however, the permanent plan was introduced which allows a member to take out as many shares as he desires and at any time. These shares become paid up at a definite date, but the company continues in existence. The holder may either accept the cash value of his shares at maturity or else apply their cash value toward fully paid shares. This procedure is similar to that followed in the case of endowment and paid-up life-insurance policies.

Building and Loan Associations as Urban Mortgage Institutions. Most of the assets of building and loan associations are in the form of mortgages. Each association is governed by the laws of the state in which it is incorporated, and so the regulations concerning their loans vary. In most cases, however, they are allowed to lend up to 60 per cent or 80 per cent of the value of the property and usually only on first mortgages. The rate charged on building and loan associations' loans is usually 1 per cent or 2 per cent above the rate of dividend which the association pays. This difference be-

tween the rate charged and the dividends paid is to take care of operating costs and mortgage losses. The loans are usually repaid on an amortization basis, ranging over a period of from seven to twelve years.

The building and loan associations of this country, in company with other similar institutions, have experienced difficulties during the last few years. They have been aided in some states by cooperative central agencies set up by all the building and loan associations of the state. Up to December 1, 1934, the Reconstruction Finance Corporation had lent $114,972,092.54 to building and loan associations; $92,000,000 of this has been repaid. Their failure record, although by no means perfect, has been decidedly better than that of commercial banks.

The Home Owners' Loan Act of June 13, 1933, which supplemented the Home Loan Bank Act, permitted the establishment of Federal savings and loan associations. They are chartered by the Home Loan Bank Board and are members of the Federal Home Loan Banks, from which they secure their funds. The Federal government is permitted to subscribe one dollar to their stock for each dollar paid in by association members. A number have already been established and it is expected that there will soon be many of them.

Investment Trusts. Prior to the speculative boom which began in this country about 1924, investment trusts were relatively unimportant. It is true, of course, that for many years we had had companies of this general nature, but they did not become prominent in investment circles until recent years. The International Securities Company of America, which was chartered in 1921, was soon followed by numerous organizations of a similar nature. There were probably not more than a dozen investment trusts in this country before 1921, while at the close of 1930 there were five or six hundred of them. The chief reason for the growth in investment trusts was no doubt the profit which could be secured by their promoters. Investment banks were the principal promoters, and so we have had such investment trusts as the Goldman-Sachs Corporation, the Blue Ridge Corporation, and the Shenandoah Corporation, formed by the Goldman-Sachs trading company,

and numerous others promoted by J. and W. Seligman and Company, Dillon, Read and Company, Chase, Harris, Forbes and Company, and Lehman Brothers, to mention only a few of the investment houses which were active in promoting investment trusts.

Mr. John T. Flynn has the following to say about one of the early promotions:

> Dillon, Read & Co. organize an investment trust — the United States and Foreign Securities Corporation. They bring together into this fund $30,000,000. They supply $5,000,000 of it themselves. For this they get all of the Second Preferred Stock of the company, which is worth $5,000,000 by itself for it pays a guaranteed dividend of 6 percent. They get, in addition, without paying any extra money, 750,000 shares of the common stock. In a single year, this common stock, for which they paid nothing, earned $5.86 a share. This amounted to $4,395,000. These earnings were not paid out in dividends but they remained in the assets of the corporation to fix the liquidating value of the common stock. This was the result from a single year. This was earned through the management of the golden eggs of other people skilfully assembled in that prolific incubator which the bankers called the United States and Foreign Securities Company.[1]

Investment trusts are of two types: fixed and semifixed trusts and general-management trusts. The general-management type of investment trust is sometimes referred to as the British type because organizations of this character had existed in England for a number of years.

Fixed Investment Trusts. This type of trust has a very simple organization. For every dollar invested in a fixed investment trust, securities must be purchased in previously agreed upon proportions. In a semifixed trust a larger amount of discretion is given to the management than in a fixed trust. The table on page 655 illustrates the nature of the portfolio of one of our fixed investment trusts. The figures given for the number of shares of each security designate the proportions in which the stocks must be held. For example, every time this investment trust purchases one share of American Can, it must purchase two shares of Bor-

[1] John T. Flynn, *Investment Trusts Gone Wrong!* pp. 5–6. New Republic, Inc.

NORTH AMERICAN TRUST SHARES

(Each share represents $\frac{1}{4000}$ part of a unit of deposited stock)

NUMBER OF SHARES	COMPANY
4	American Can Company
12	American Radiator Company
4	American Telephone and Telegraph Company
4	American Tobacco Company, "B"
4	Atchison, Topeka, and Santa Fe Railroad Company
8	Borden Company
16	Columbia Gas and Electric Company
8	Consolidated Gas Company
4	Corn Produce Refining Company
4	Drug Incorporation
8	E. I. du Pont de Nemours and Company
4	Eastman Kodak Company
16	General Electric Company
4	General Foods Company
8	General Motors Company
4	International Harvester Company
8	National Biscuit Company
4	New York Central Railroad Company
8	North American Company
8	Otis Elevator Company
8	Pacific Gas and Electric Company
4	Pennsylvania Railroad Company
4	Proctor and Gamble Company
4	Public Service Corporation of New Jersey
8	R. J. Reynolds Tobacco Company, "B"
8	Sears Roebuck Company
8	Standard Brands, Incorporated
12	Standard Oil Company of New Jersey
12	Union Carbide and Carbon Corporation
4	Union Pacific Railroad Company
12	United Gas Improvement
4	United States Steel Corporation
4	Westinghouse Electric Corporation
8	F. W. Woolworth Company

den Company, three shares of American Radiator, and four shares of Columbia Gas and Electric.

General-Management Trusts. There are very few investment trusts in which the entire portfolio is left to the discretion of the management, but there are many which allow the management

some discretionary power. For example, half the investment trust's portfolio might be prescribed, and the remaining half left to the discretion of the management. This type of trust originated in England, and in general is the chief type which prevails there.

The following are examples of general limitations placed upon the investing of general-management investment-trust funds:

1. Not more than 5 per cent of the capital paid in to the trust may be invested in the stock of any one corporation.
2. Purchases of all stocks must be confined to an approved list, additions to which are subject to the approval of the advisory board.
3. A sum in excess of 5 per cent of the net liquidating value of the trust fund cannot be borrowed without the approval of the advisory board.
4. The holdings of non-dividend-paying common stocks must be limited to not more than 5 per cent of the trust fund.

Security salesmen have always played up diversification as the principal guide to wise investing. As one writer puts it, "Diversification is the alchemy of investment." [1] The small investor, however, is unable to diversify much, because the amount of his funds does not enable him to purchase securities in many enterprises. The investment trust can offer diversification to the small investor, because it may be said that even one share in an investment trust has as its backing a diversified list of securities which are the principal assets of the trust. If it is true that diversification is desirable, then the investment trust has that in its favor. The chief drawback is that the organization of the investment trust in some cases is so complicated and the securities of the trust so far removed from the operating companies that the expenses of operation may "eat up" the income on the securities held. The principal source of income to an investment trust is the amount of interest and dividends it receives on the securities it holds. If, by proper diversification, it can obtain an average return of 6 per cent, this would all go to the stockholders of the investment trust if there were no operating expenses.

[1] Chamberlain and Hay, *Investment versus Speculation*, p. 57.

However, if operating expenses amount to half the income received, then even proper diversification will not net the investor in the investment trust a satisfactory return.

In many cases investment trusts of investment trusts were formed, which means that the second investment trust was two steps removed from the operating companies and that the expenses for the operation of two trusts had to be paid before the shareholders of the second trust received any return. There are cases where the pyramiding went even farther than this, and this factor is no doubt one of the reasons for the poor showing made by the investment trusts in the United States during the depression period. As of 1930 the United Founders Corporation, one of the largest of the pyramiding type of investment trusts, controlled the following companies: American Founders Group, Investment Trust Associates, Hydroelectric Securities, United National Corporation, Public Utility Holding Company, United States Electric Corporation, American and Continental, North and South American Corporation, Transoceanic Trust, Ltd., United States and Overseas Corporation, Aeronautical Industries. Most of these companies are one, and in some cases two, steps removed from the operating companies.

In one respect the investment trust and the holding company are similar; that is, they both have as their principal assets the securities of other companies. The holding company, however, is formed primarily for the purpose of obtaining control of the company whose securities it holds, whereas the investment trust is usually not interested in control but only in the returns either through interest and dividends or through appreciation in the value of the security.

After several years of the depression many investment trusts were thoroughly discredited with the investing public, until a situation arose which might lead one to say that their securities were selling too low. The securities of numerous investment trusts were selling below their liquidating value. By this it is meant that if the assets of these trusts were to be sold at their current quotations, the stockholders would be paid more than the current market price of the investment-trust securities. This may

be another case of the pendulum's swinging too far in one direction after it had swung too far in the other direction.

Although the prices of common stocks on the average fell about 86 per cent from their high point in 1929 to their low point in 1932, it was not unusual for the price of investment trusts' shares to fall from 90 to 95 per cent. The above-mentioned United Founders Corporation stock fell from a high of approximately $74 to a low of less than a dollar a share. Some well-managed trusts fared very well during the period of drastically declining security prices, which would seem to aid in substantiating the view that the principle upon which investment trusts operate, especially general-management trusts, is sound, and that, if the principle is properly applied, there is a place for the investment trust among our financial organizations.

Commercial-Paper and Acceptance Houses. The work of commercial-paper houses and acceptance houses is so closely related to that of the investment bank that a discussion of them is included in this chapter. Commercial-paper houses are separate and distinct institutions from acceptance houses; so they will be discussed separately.

Commercial-Paper Houses. The commercial-paper house deals in short-term paper in much the same manner as the investment house deals in long-term paper. If a corporation wishes to raise long-term capital, it usually issues stocks or bonds or both and sells them to an investment house, which in turn sells them to the investing public. On the other hand, if the corporation wishes to raise short-term capital, it usually has two methods open to it. It may go to a commercial bank and borrow the needed sum on the basis of a promissory note, or it may make out a promissory note and sell it in the open market. It is in connection with this latter process that a need for commercial-paper houses has arisen.

First of all, just any corporation would not be able to sell its promissory notes in the open market, for no one would be willing to purchase the promissory notes, especially unsecured promissory notes, of a corporation about which he had never heard. It is

therefore only the older and more reputable corporations which are able to use this direct method of raising short-term capital.

Even when this direct method is used, there is an intermediate agency which first purchases the promissory notes from the corporation and then resells them to the public or in many cases to the commercial banks. This intermediate agency is the commercial-paper house. Aside from a few local commercial-paper dealers who do business only intermittently, there are probably not more than thirty-five or forty commercial-paper houses in the United States. It is estimated that one half of all the paper sold in the decade ending in 1929 was handled by seven houses, five separate concerns and two chains.[1] The larger commercial-paper houses are located or at least have their head offices in New York, Chicago, and Boston.

The commercial-paper dealer is not a broker. By this it is meant that he, like the investment banker, usually does not work on a commission basis, but rather purchases the paper outright from the corporations and then resells it. The margin between the purchase price and the selling price is, of course, his profit. There are some houses, however, which take paper on consignment, remitting to the corporations as sales are made, but this method is rarely used at present. The spread between the price paid by the commercial-paper house and the price at which it resells varies from about an eighth of 1 per cent to a half of 1 per cent, and it averages about a quarter of 1 per cent. This spread is usually referred to as a commission, but, as we have seen, it is not strictly such.

Most of the paper held by commercial-paper houses is in the form of promissory notes the majority of which are unsecured. The maturities of this paper range from two to nine months, with four and especially six months occurring most frequently. The standard round-number figure for these promissory notes is

[1] One of the best descriptions of a commercial-paper business is contained in *Commercial Paper Market* (Bankers Publishing Company), by R. A. Foulke, and in Volume III of B. H. Beckhart's *New York Money Market* (Columbia University Press).

$5000, but there are some notes of $2500 and $10,000 and a few of even larger denominations.

It is almost universally true that commercial-paper houses do not endorse the paper which they resell. The fact that they are not legally responsible, however, does not mean that they are not extremely careful in the choice of the paper which they buy and later resell. As is the case with investment houses, the commercial-paper-house business is largely built upon the basis of "repeat sales." Many purchasers of this type of paper consider the name of the commercial-paper house handling the paper as important or even more important than the name of the signer of the promissory note. If a commercial-paper house aims at selling only paper which is paid promptly at maturity, then it builds up a reputation which is extremely valuable in bringing future business to it.

A large amount of capital is not necessary for the operation of a commercial-paper house. If the paper can be resold, then it is just a question of having sufficient capital to finance the period required for the marketing of the notes. In other words, if a commercial-paper house buys $100,000 worth of short-term notes, and can resell these within a period of a week, then it needs only to have the use of $100,000 for a week. This capital is partly obtained from the partners in the case of a partnership, or from the stockholders if the commercial-paper house is incorporated. In addition the commercial-paper house frequently borrows for short periods from the commercial banks.

It seems clear that the more business done by the commercial-paper houses, the less there is for the commercial banks, except in so far as the commercial banks may lend money to the dealers or may be the purchasers of the paper from the dealers. Commercial banks have frequently pointed out that when conditions are normal, many corporations will sell their promissory notes to the commercial-paper houses; but when stress periods come, and it becomes more difficult for corporations to sell their notes in this manner, they will resort to the more common method of securing their short-term-capital needs from the commercial banks. Of course the principal advantage to the corporations of

the direct sale of their promissory notes to commercial-paper houses is that it is cheaper. The rates on such paper are usually less than the rates which the corporations would have to pay on short-term loans from commercial banks.

The amount of business done by commercial-paper houses, however, in no sense rivals that which is done by the commercial banks. At the close of 1934 there was $166,000,000 of this type of commercial paper outstanding in the United States, while the total loans of the banks, exclusive of mutual savings banks, totaled about $16,000,000,000.

The following table gives, by years, the average monthly volume of commercial paper outstanding between 1925 and 1934:

Year	Average Monthly Volume (millions of dollars)
1925	743
1926	629
1927	585
1928	494
1929	322
1930	489
1931	264
1932	105
1933	95
1934	156

Acceptance Houses. Before 1913 the acceptance business in the United States was of little significance, because national banks, and state banks in many states, were forbidden to carry on an acceptance business. The encouragement given the acceptance business by the liberalized provisions of the Federal Reserve Act, and the additional encouragement given it after the Federal Reserve System got under way, have led to a considerable growth in the volume of acceptance business in the United States, so that in the period 1926–1931 between $1,000,000,000 and $1,500,000,000 of this type of paper was outstanding.

Acceptance houses operate in much the same manner as the commercial-paper houses; that is, they purchase acceptances in the open market and then resell them to, principally, the Federal

reserve banks, commercial banks, savings banks, and corporations or individuals having temporarily idle funds. The Federal reserve banks stand ready to purchase these acceptances in any volume at a rate which is usually less than their rediscount rate. This makes the business of the acceptance dealer an extremely liquid one.

In addition to the common type of acceptance houses there are also specialized accepting institutions. This latter business, which consists of accepting drafts for customers, is not necessarily separate from the business of the dealers, for in many cases an acceptance house both accepts drafts and acts as a dealer in acceptances.

The impetus given to the acceptance business in the United States under the Federal Reserve System still does not make it relatively as important as it is in England. For international acceptances London has always been considered the acceptance center, and has gone considerably farther than we have in setting up specialized acceptance houses.

The acceptance business, although considerably larger than the commercial-paper business, still does not rival the business done by the commercial banks. The volume of bankers' acceptances outstanding as of the close of each year from 1925 to 1934 is given in the following table:

Year	Acceptances Outstanding (millions of dollars)
1925	774
1926	755
1927	1081
1928	1284
1929	1732
1930	1556
1931	974
1932	710
1933	764
1934	543

Industrial Banks. There are a number of financial institutions which grant small loans to individuals or their families. The

pawnbroker is perhaps the oldest dealer of this nature, but his business has recently turned in other directions, and, except for a few remaining "loan sharks," most of the small-loan business is carried on by incorporated organizations. Under the sponsorship of the remedial loans division of the Russell Sage Foundation a uniform Small Loan Act was drafted in 1916, and by 1934 twenty-six states had adopted this act; eight other states had enacted laws of a different nature dealing with the same situation, but having materially different contents; and fourteen states had passed no laws at all. One of the principal provisions of the uniform small-loan law is to set a maximum interest charge of $3\frac{1}{2}$ per cent per month on all loans of $300 or less.

The so-called industrial bank is the most important single small-loan agency. The principal industrial banking system in the United States is the Morris Plan banks. This organization began with one office in Norfolk, Virginia, in 1910, and now has offices in most of the states of the Union; it does an annual volume of business of more than $100,000,000. The Morris Plan banks grant loans of small amounts, usually between $100 and $300, to individuals and do not usually require security collateral. They do require, however, the endorsement of two other persons, called "comakers," who are jointly and severally liable with the maker for the payment of the note. In cases of collateral loans comakers are not necessary. The loans are paid off in weekly, semimonthly, or monthly installments.

The table on page 664 gives an idea of the charges made on small comaker loans of the Morris Plan industrial banks. The interest rate on these loans under the terms indicated in the table varies from 13 per cent to 15 per cent.[1]

The Morris Plan banks likewise do a deposit business by means of Morris Plan certificates, which in most cases have paid an interest rate above that of savings banks. Their principal business, however, is the making of installment loans.

Mr. Arthur J. Morris, who founded the Morris Plan banks, has

[1] For a more complete analysis of the rate on these loans, together with the cost of general installment purchases, see "Cost of Installment Buying," by Lewis A. Froman, in the *Harvard Business Review* for January, 1933.

Amount of Loan	Total Charges	Borrower Receives	Twelve Monthly Payments
$108.00	$8.64	$99.36	$9.00
120.00	10.20	109.80	10.00
156.00	12.48	143.52	13.00
204.00	16.32	187.68	17.00
252.00	20.14	231.86	21.00
360.00	27.70	332.30	30.00
456.00	34.42	421.58	38.00
552.00	41.14	510.86	46.00
660.00	48.70	611.30	55.00
756.00	55.42	700.58	63.00
900.00	65.50	834.50	75.00
1008.00	73.06	943.94	84.00

written as follows concerning the purpose and the operations of these industrial banks:

The Morris Plan was dedicated to the proposition that the non-propertied classes of the community are entitled to access to the monied capital of the community through high-class financial institutions and at reasonable rates; and was predicated upon the belief that the average man and woman is financially honest and with dependable earning power will repay the obligation if afforded proper opportunity to do so.

. . . . . .

It has long been an established economic fact that 80 per cent of the American adult population was without access to commercial banking credit, and it has always been the proud contention of the Morris Plan that it has brought legitimate and businesslike banking credit to the masses. This is forcefully proven in this same survey of 10,000 loans, which showed that 80.5 per cent of Morris Plan borrowers had no bank accounts before becoming Morris Plan customers, and such a figure becomes especially significant when we consider the financial orderliness that comes to the individual who borrows or invests under the Morris Plan. Countless borrowers, once they have liquidated their obligations, continue their instalment payments in the form of saving; and of this 80 per cent who come in to the Morris Plan without other banking connections, it is obvious that a great number will come away vastly benefited by their experience and with a new appreciation of money values and

financial orderliness. Truly, Morris Plan has been a bank for the masses — for those 80 per cent who were without banking connections.

. . . . . .

The Morris Plan Bank is distinguished from the commercial bank by the fact that it does not carry checking accounts and does not accept demand deposits. It is a thrift institution which lends its money to those who agree to save with it systematically. No Morris Plan bank has ever failed and no depositor has ever lost a single dollar in any one of these institutions.

. . . . . .

Our rates are, of necessity, somewhat higher than commercial bank rates for the reason that our business is a retail business, whereas that of the commercial bank is a wholesale business. Our average loan is approximately $300, whereas the average commercial bank loan is $10,000 or more.[1]

Labor Banks. There have been a number of labor banks formed in this country, usually under the sponsorship of trade-unions. The first bank of this kind was organized in 1920 by the International Association of Machinists. By the close of 1926 there were thirty-five labor banks in existence, with total resources of $126,000,000 and deposits of $109,000,000. Many of these banks carried on a regular commercial banking business, and most of them made some provision for thrift accounts. Labor banks, owing to inexperienced and incompetent management, were, in general, very unsuccessful, and by the close of 1932 only seven banks remained, with total resources of approximately $29,000,000. This does not mean that all the others had failed, as some of them were merged or taken over by other banking institutions.

Those labor banks which have been successful have been managed by conservative bankers of long experience; but in most of the ill-fated banks positions of executive responsibility were

[1] "The Morris Plan's Contribution to the Economic Life and Welfare of the Wage-Earner," by Arthur J. Morris, in the *American Federationist* for April, 1932, pp. 404–409. This article, only a small portion of which is reproduced here, is a very complete analysis of the aims of the Morris Plan system.

given to men who had been prominent in and sympathetic with the labor movement, instead of to men who understood sound bank administration. Politics and animosities played havoc here and there. Some banks were overstaffed in order to give jobs to the faithful. Certain banks invested excessively in expensive office equipment in order to make an impressive showing. Some went too far to the other extreme. Frequently a bank had executives of ability who, however, were subject to the wishes of boards of directors composed of well-meaning but ignorant and inexperienced labor leaders. The International Ladies Garment Workers Bank in New York made loans of nearly $400,000 to the garmentworkers union, and the loans could not be paid. The opposition of commercial bankers in some centers made the road difficult, and labor banks were frequently not permitted to join local clearinghouses. Some banks paid dividends before they were earned. It was impossible in some communities to secure profitable business from businessmen who were opposed to labor, and many of the loans made by labor banks were to individuals who were unable to secure loans from the commercial banks. In some cases there were not only inefficiency, ignorance, and bad judgment, but downright dishonesty. The officers of the Pittsburgh Brotherhood Bank concluded a record of mismanagement by buying Liberty Bonds at a large discount from a dishonest salesman, surrendering the money without receiving the bonds.

Credit Unions. The credit union originated in Germany in 1849 for the purpose of aiding small borrowers of all types, including farmers, tradesmen, and artisans. It was not until after the beginning of the twentieth century that credit unions began to spring up in the United States. In 1909 Edward A. Filene, a Boston merchant and philanthropist, organized the Credit Union National Extension Bureau, the activities of which he has financed during the quarter-century of its existence. Massachusetts passed a Credit Union Law in 1909, New York a similar law in 1913, followed by North Carolina in 1915. At the present time most of our states have such laws.

The credit union is in the nature of a mutual savings and loan association that collects the savings of its members and lends the

funds thus accumulated to the members and to the members only. Its purposes may be outlined as follows:

1. To encourage saving among members by providing a safe and convenient medium of investment.
2. To afford the small borrower an opportunity to obtain funds at a reasonable cost.
3. To train the members of the union in business methods and to show the value of co-operation. (This purpose is probably incidental to the first two.)

The Federal government encouraged the formation of credit unions by passing in June, 1934, a law enabling fifty or more persons to petition the government for the right to establish a credit union. The charter is granted by the Federal government. During the remainder of 1934, credit unions were formed at the rate of fifty to sixty a month, until by the close of the year there were some three thousand unions in existence in this country.

The organization of the credit union is very simple. It receives its funds from shares which it sells to its members and from the deposits of members. Every member must be a shareholder, even though he may hold only one share. The shares run as low as $5 and as high as $25, and may be purchased on the installment plan for as little as 10 cents a week. From the funds thus collected loans are made to the members. Applications for loans are made to the credit committee of the individual credit union. For a loan up to $50 character is usually the only collateral required, but for a loan over $50 the borrower must get cosigners among the members, or else he must have an account equal to the amount which he wishes to borrow. Interest of 1 per cent a month is charged on the unpaid balance of the loans in most unions. The borrower repays the credit union in installments, according to his ability, but while he is repaying he is required to deposit some of his income in a savings account. Members in a credit union are urged to borrow money rather than to decrease their savings account or shareholdings. Dividends are paid on the stock of the credit unions.

Membership is usually limited to persons of a particular

group — for example, to persons connected with a particular factory or store, to those belonging to a particular parish, to a farm group, and to other closely knit units of society. Various groups of employees of Armour and Company, for example, had formed ninety-eight credit unions up to the close of 1934. The Federal government, although not directly furnishing any funds, has aided credit unions through the agencies of the Farm Credit Administration and the Reconstruction Finance Corporation. As of November 30, 1934, the Reconstruction Finance Corporation had granted loans to credit unions to the extent of $581,000. As of the close of 1933 there were 2016 credit unions in operation in the United States, with a membership of approximately 360,000. Their capital stocks amounted to over $22,000,000, and they had loans outstanding of $26,319,000. Deposits amounted to $5,685,000.

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CHAPTER XXIX

BANK FAILURES AND BANKING CONCENTRATION

During recent years a great deal has been written about banking concentration in the United States.[1] Bank failures are closely connected with the general subject of banking concentration because the desire to avoid failures has been a factor of great importance in the concentration movement in the United States. Between 1921 and 1930, when the number of banks in the United States declined about 22 per cent, the total resources of banks steadily increased, which shows that more business was being done by fewer institutions. In such countries as Germany, France, England, and Canada concentration has progressed to the point where a few large institutions do most of the commercial banking business. In the United States the unit bank continues to predominate, although the number of units has decreased very drastically during the last decade. The first table on page 671 gives the number of banks in the United States as of the close of each year from 1919 to 1933. Between December 31, 1921, and June 30, 1934, the number of banks in the United States declined from 30,560 to 15,835, a decline of approximately 50 per cent.

Bank Failures. There are several causes of the decline in the number of banks, the most important of which are bank failures and bank consolidations and mergers. The number of bank failures which occurred in the United States each year from 1921 to 1932 is as shown in the second table on page 671.

[1] See especially *Branch, Group, and Chain Banking* (The Macmillan Company), by Gaines T. Cartinhour; *Banking Concentration in the United States* (Bankers Publishing Company), by Joseph Stagg Lawrence; *Concentration of Banking* (Columbia University Press), by John M. Chapman; and the section dealing with this general subject in *The Banking Situation* (Columbia University Press), by Willis and Chapman.

NUMBER OF BANKS IN THE UNITED STATES, 1919–1933 (AS OF DECEMBER 31) AND 1934 (TO JUNE 30)

YEAR	ALL BANKS	MEMBER BANKS			NONMEMBER BANKS	
		Total	*National*	*State*	*Mutual Savings*	*Other*
1919	28,600	8821	7779	1042	633	19,146
1920	29,829	9298	8024	1374	631	19,800
1921	30,560	9745	8150	1595	634	20,181
1922	30,158	9892	8244	1648	630	19,636
1923	29,505	9774	8179	1595	630	19,101
1924	28,806	9587	8043	1544	623	18,596
1925	28,257	9489	8048	1441	621	18,147
1926	27,367	9260	7906	1354	618	17,489
1927	26,416	9034	7759	1275	618	16,764
1928	25,576	8837	7629	1208	613	16,126
1929	24,630	8522	7403	1119	609	15,499
1930	22,769	8052	7033	1019	603	14,114
1931	19,966	7246	6368	878	597	12,123
1932	18,390	6816	6011	805	594	10,980
1933	15,011	6011	5154	857	581	8,419
1934 (June 30)	15,835	6375	5417	958	578	8,882

BANK SUSPENSIONS IN THE UNITED STATES, 1921–1932

YEAR	ALL BANKS	MEMBER BANKS			NONMEMBER BANKS	DEPOSITS
		Total	*National*	*State*		
1921 . .	505	71	52	19	434	$172,188,000
1922 . .	367	62	49	13	305	93,043,000
1923 . .	646	122	90	32	524	149,601,000
1924 . .	775	160	122	38	615	210,151,000
1925 . .	618	146	118	28	472	167,555,000
1926 . .	976	158	123	35	818	260,378,000
1927 . .	669	122	91	31	547	199,329,000
1928 . .	499	73	57	16	426	142,580,000
1929 . .	659	81	64	17	578	230,643,000
1930 . .	1,352	188	161	27	1164	853,363,000
1931 . .	2,294	516	409	107	1778	1,690,669,000
1932 . .	1,456	331	276	55	1125	715,626,000
Total .	10,816	2030	1612	418	8786	$4,885,126,000

During the twelve-year period 1921–1932 inclusive, nearly eleven thousand banks failed in the United States. During the same period the number of banks declined by more than twelve thousand. It would seem therefore that by far the most important cause of the decline in the number of banks in the United States was the number of failures which occurred. It cannot be said that failures account for eleven twelfths of the reduction, because during the period a good many new banks were formed, and approximately 1600 banks which were reported as suspended later reopened. In addition many banks were absorbed by mergers and consolidations. This failure record, however, is anything but enviable, and it has caused several commentators to refer to the "collapse" of the American banking system in the years following the World War.

There is no single official figure for the number of bank suspensions during 1933. The Federal Reserve Board reports 462 banks suspended between January 1 and March 15. Then 221 licensed banks were suspended between March 16 and December 31, and finally 1100 nonlicensed banks were placed in liquidation or receivership between March 16 and the end of the year. The total of these figures is 1783, which is probably the most reliable estimate of the number of failures for 1933.

The causes of bank failures cannot be definitely ascertained, but the Comptroller of the Currency has attempted to give the reasons for the failure of national banks. As to the apparent causes of their failure the Comptroller of the Currency classifies the 1417 national banks which failed between April 14, 1865, and October 31, 1930, as shown in the table on page 673.

According to the Comptroller of the Currency the most important causes of the failures of national banks between the dates just mentioned can be grouped under one title: incompetent management, approximately 40 per cent of the total falling under this head. This figure does not include the banks which failed from a combination of causes. This is indeed a sad commentary upon the management of our banks. Local financial depression from unforeseen agricultural or financial disaster accounts for another 28 per cent, not including the combination causes. If

APPARENT CAUSES OF NATIONAL-BANK FAILURES

CAUSES	NUMBER	PERCENTAGE
Incompetent management	572	40.4
Dishonesty	86	6.1
Local financial depression from unforeseen agricultural or financial disaster	396	28.0
Temporary suspension	76	5.3
Formerly in voluntary liquidation	6	.4
Receiver appointed to levy and collect stock assessment covering deficiency in value of assets sold	52	3.7
Receiver appointed to complete unfinished business	3	.2
Incompetent management and dishonesty	33	2.3
Incompetent management and local financial depression from unforeseen agricultural or financial disaster	171	12.1
Dishonesty and local financial depression from unforeseen agricultural or financial disaster	22	1.5
Total	1417	100.0

the number of banks which have a combination of causes for their failure were apportioned equally among the single causes, incompetent management would account for 48 per cent of the total, and local financial depression for 35 per cent.

Weaknesses of our Banking System. The causes given above by the Comptroller of the Currency are, of course, only the immediate causes of the failures. The following considerations are offered as fundamental weaknesses of the American banking system which have contributed to the large number of bank failures in this country. No attempt is made to provide a complete list of weaknesses, nor is an attempt made to list them in the order of their importance. The following, however, would seem to be the outstanding shortcomings of our banking system:

1. Our commercial banks are regulated and supervised by forty-nine different legislative bodies — the legislatures of the forty-eight states, and the national Congress for the national banks. The system has been complicated even more by the supervision of the Federal Deposit Insurance Corporation and the Reconstruction Finance Corporation. In addition bank-examiners have been subjected to political influences in

some states, and in most states the salaries paid examiners have not been high enough to attract really capable men.

2. There are too many banks, especially too many small banks. Our failures have been greatest among banks with small capitalization, and also heaviest in small towns and villages. Some writers have referred to this situation as "overbanking," by which they mean that many communities have more banking facilities than local business is able to support.

The following classification, according to the size of their capital-stock accounts, of the banks which failed between 1921 and 1932 will give some indication of the importance of the smaller banks in this connection:

BANK FAILURES, 1921–1932

CAPITAL STOCK OF SUSPENDED BANKS	NUMBER OF FAILURES	PERCENTAGE OF FAILURES
$25,000 or less	6138	57
More than $25,000 but less than $50,000	999	9
$50,000 or more	3556	33
	10,693	99[1]

Between 1921 and 1932, 57 per cent of all the banks which failed had a capitalization of $25,000 or less. As of June 30, 1930, only 41 per cent of our banks had capital-stock accounts of $25,000 or less. The failure rate of these small banks was especially high (relative to total failures) before 1930. The Banking Act of 1933 provides for a minimum capitalization of $50,000 for all new national banks.

It may be, of course, that the 50 per cent reduction in the number of banks which took place between 1921 and 1933 has taken care of our "overbanked" situation. One difficulty at present is that what banks we do have are not properly distributed, so that many communities are left without banking facilities.

3. Too many of our banks are outside the Federal Reserve System. The failure record of the Federal reserve member banks, although bad enough, is somewhat better than that of nonmember banks. Between 1921 and 1932 member banks constituted approximately 35 per cent of all the banks in the country, but of the 10,816 failures occurring during this period only 2030, or less than 19 per cent, were failures of member banks.

[1] Figures not available on 123 banks.

4. Many banks which depend entirely upon the local community for their business have not been able to secure the proper diversification of their loan and investment portfolios. This weakness shows up most among the banks which are located in communities that have highly specialized industries and little diversity.

5. The management of many of our banks has been shown to be untrained, incapable, and inexperienced. The apparent causes of national-bank failures clearly show this. We have not yet come to consider banking as a profession which necessitates similar training to that required of accountants, doctors, and lawyers. It has been suggested recently that certain minimum standards be set up for bankers similar to the requirements for public accountants. Thus we should have certified public bankers as well as certified public accountants.

6. There has been a great deal of dishonesty shown by the managers of many of our banks. This, of course, cannot be completely overcome, but in some cases it can be detected sooner by more adequate examination and supervision.

Bank Mergers and Consolidations. The merger movement among the banks in the United States began at a later date than it did in a number of foreign countries, notably Germany, England, and France. One of the most important reasons for this was the legal obstacles in the way of bank mergers and consolidations in the United States before the beginning of the third decade of the twentieth century. Only since 1921, and especially since 1927, has the merger movement in this country been of particular importance.

Two legislative acts have aided materially in the movement. The first was the Consolidation Act of November 7, 1918, and the second was the McFadden-Pepper Act of 1927. Prior to the passage of the Consolidation Act a national bank could not consolidate with another national or state bank until one or both had gone into voluntary liquidation, in which case it was possible for the continuing bank to buy the assets of the liquidating bank; or, if both banks went into voluntary liquidation, then a new bank could be organized which would take over the assets of both the liquidating banks. The Consolidation Act permitted two or more national banks to consolidate directly without the liquidation of either or any. There was no provision in this law, however,

covering the merger of state and national banks, and as a consequence, when state and national banks wished to consolidate, it was necessary for the state banks to liquidate and then be absorbed by the national banks. The McFadden-Pepper Act amended this provision so that there could be direct consolidation between state and national banks.

Prohibitive branch-banking laws have likewise been a deterrent to the consolidation movement. Unless a bank may continue to operate as a branch the bank which it wishes to take over, there is, outside of our large cities, usually very little point in consolidation, especially between banks which are located at considerable distances from each other. In those states, of course, which allowed their own banks to establish branches within the state boundaries, the merger movement and the branch-banking movement have gone hand in hand. In the state of California, for example, the merger movement has proceeded to the point where most of the commercial banking business is carried on by a few institutions. In other states which do not allow branch banking the merger movement has been confined usually to banking institutions within the same city, except, of course, for the group-banking and the chain-banking movement.

The number of bank mergers and consolidations for each year of the period 1919–1931, together with the number of banks involved in these transactions, is given in the table on page 677.

The reasons for the mergers which took place between 1921 and 1929 differ somewhat from the reasons for the mergers since 1929. Professor Chapman states the causes for the mergers taking place during the two periods as follows:

> The volume of total resources of banks participating in mergers increased rapidly from 1925 to 1930, but registered a heavy drop during the two depression years, 1930 and 1931. In other words, the number of mergers increased during the so-called prosperous years, as well as during the lean years; whereas, the resources of participating banks dropped during the depression.
>
> Reasons for mergers during the two periods were different in many cases. The larger banks did not expand through mergers and consolidations, to any great extent, after 1929. Smaller banks were being absorbed

in order to relieve "banks in distress" or to relieve an "over-banked" condition. Among the various causes for bank mergers and consolidations, that of preventing bank failures has become much more important since the beginning of the depression in 1929. The desire to secure branches and trust business has declined in importance. This is an extremely interesting and an important feature of the depression period of bank mergers. The factors at work in 1929, especially, were the desire to secure size, power, and prestige — in some sections ambition to get a larger number of branches was predominant.[1]

BANKS PARTICIPATING IN BANK MERGERS AND CONSOLIDATIONS, 1919–1931

YEAR	NUMBER OF MERGERS	TOTAL NUMBER OF BANKS INVOLVED	TOTAL NUMBER OF BANKS ABSORBED
1919	178	345	178
1920	181	349	183
1921	281	559	292
1922	337	616	340
1923	325	584	325
1924	350	668	352
1925	352	657	356
1926	429	814	429
1927	543	955	544
1928	501	916	507
1929	571	1,060	575
1930	699	1,346	698
1931	706	1,363	719
Total	5453	10,232	5498

Between 1918 and 1932 there were approximately 5500 bank mergers in the United States involving about 10,000 banks. The general reasons for the consolidation movement in this country may be summarized as follows:

1. To prevent bank failures.
2. To obtain branches.
3. To secure trust business.
4. To satisfy the personal ambitions of some bankers who have desired to place their institutions among the largest in their communities.

[1] *The Banking Situation*, by Willis and Chapman, p. 359.

The remainder of this chapter will be devoted to a discussion of chain, group, and branch banking.

Chain and Group Banking. Chain and group banking are considered together in this chapter, although there are technical differences between them. Chain banking usually refers to that type of banking control and ownership in which an individual or a group of individuals own and control the majority stock of two or more banks. Group banking, on the other hand, refers to that type of banking in which a holding company controls the majority stock in the operating banks. The stock of the holding company in turn, of course, is controlled by an individual or a group of individuals or even by another holding company.

Historically chain banking is much older than group banking. The use of this later form did not assume importance in the United States until about 1926. Some of the larger bank holding companies which control group systems in the United States are the Transamerica Corporation of California, the Marine Bank Corporation of Seattle, the Northwest Bancorporation of Chicago and Minneapolis, and the Marine Midland Corporation of New York. This latter holding company owns the majority stock of twenty banks within New York State, including the Marine Midland Trust Company of New York City. It is not possible to secure up-to-date statistics on the number of group-banking systems in the United States. A committee of the Federal Reserve Board, however, published a report in 1932 on banking groups and chains. The number of groups and chains in the United States as of December 31, 1931, classified by geographical areas, was as shown in the table on page 679.

The two hundred and seventy-three group and chain systems in existence as of December 31, 1931, owned some two thousand individual banks. These banks had loans and investments of $9,641,000,000. The loans and investments of all commercial banks at that time amounted to approximately $39,000,000,000. Group and chain systems, therefore, control about 25 per cent of the loans and investments of the commercial banks of this country.

It is difficult to detect any advantages possessed by the group or the chain system which are not possessed by the branch system.

NUMBER OF GROUPS AND CHAINS, CLASSIFIED ACCORDING TO GEOGRAPHICAL AREAS (AS OF DECEMBER 31, 1931)

GEOGRAPHICAL REGION	NUMBER OF GROUPS	LOANS AND INVESTMENTS
New England	11	$1,030,000,000
Middle Atlantic	43	2,774,000,000
North Central	33	2,138,000,000
Southern mountain	4	153,000,000
Southeastern	21	399,000,000
Southwestern	35	253,000,000
Western grain	84	900,000,000
Rocky Mountain	17	215,000,000
Pacific	25	1,779,000,000
Total in United States	273	$9,641,000,000

It is true that most chain and group banking systems have grown up in states which have prohibited branch banking. The Marine Midland system of New York no doubt was formed for this reason. Soon after limited branch-banking privileges were extended to New York State in 1934, this group system did away with several of its units and made branches of them.[1]

In group systems supervision is very difficult, as the holding company which controls the operating units is not subject to the same supervision as the units themselves. The group type of banking, of course, makes the double liability feature of bank stock practically meaningless. Chain banking has been very unsuccessful in the United States, and the number of chains has declined drastically since 1925. Beginning in that year several small chains failed in Iowa, Colorado, and Illinois. The Manley-Witham chain, operating in the state of Georgia, failed in 1926. The famous A. B. banking chain of Arkansas and Tennessee failed in the latter part of 1930. The Federal Reserve Board states in its annual report for 1922 that the largest chain system, probably the Manley-Witham chain, included some one hundred and seventy-five banks.

[1] Under the branch-banking law passed in 1934 New York State is divided into nine districts, and branches may be located only in the district where the home office is located.

One of the reasons for the nonsuccess of chain banking in this country has been the methods used in building up the chains. Frequently the shareholders of one bank would pledge their own stock as security for bank loans, the proceeds of which would be used to buy up the controlling interest in another bank, and then the new stock thus acquired would be pledged again, and so on until a number of banks had been acquired. If any one particular bank within this chain failed, then the other banks were usually dragged down with it. This truly is a good illustration of the saying that a chain is no stronger than its weakest link.

Branch Banking. No doubt the greatest impetus to branch banking in the United States was the wave of bank failures which began in this country in 1921. Before that time branch banking, although a few states had extensive branch systems, had been looked upon generally as un-American. Branch banking, because of its monopolistic implications, and the trust movement were thought of in the same terms. Since 1921, however, the breakdown of our unit banking system has caused a change in attitude, so that at the present time there is a decided tendency toward the extension of branch-banking privileges.

Even before the national banking system was established in 1863, some of our states had branch-banking systems. Our first central bank, the first Bank of the United States, as well as the second Bank of the United States, had branches; but when the Federal Reserve System was established in 1913, the regional rather than the branch system was adopted. The Aldrich Plan, which was the recommendation of the National Monetary Commission, had provided for a single central bank to be located in Washington, and it was to have branches throughout the country. The Democratic administration and Congress, however, which came into power in 1913 modified the suggestions of the National Monetary Commission by providing for a regional system of twelve Federal reserve banks. The National Banking Act did not authorize the establishment of branches. However, it did not specifically prohibit them. If a state bank which was operating branches gave up its state charter and became a national bank, then it might retain its branches. That is the reason why a few

national banks had branches even before 1918, which was the date of the first legislative act dealing with branch banking and mergers. The Comptroller of the Currency, who was charged with the supervision of the national banks, had consistently opposed the establishment of branches, and he was upheld in this attitude by the Attorney General. The best-known opinion in this connection was handed down by Attorney General Wickersham in 1911, in which he held that the National Banking Act did not authorize national banks to establish new branches.

The first change made in the legal status of branch banking was brought about by the passage of the Consolidation Act of 1918; this act permitted national banks that absorbed other banks with branches to maintain the branches which were in operation at the time of the consolidation. In 1922 Comptroller of the Currency Crissinger modified somewhat the decision of his predecessors when he authorized national banks to establish offices to serve as "tellers' windows" for the purpose of receiving deposits or checks but not for the purpose of granting loans. These tellers' windows had to be situated within the city limits of the town in which the bank operating them was located. Mr. Crissinger did not consider the tellers' windows as branches.

The next step in branch-banking development was the passage of the McFadden-Pepper Act of 1927. This act, among other things, permitted a national bank to operate branches within its own city, provided the state banking laws permitted the state banks to establish branches. It should be made clear, however, that no national bank could establish branches beyond the limits of its city; and if the state laws did not provide for branches under any conditions, then, of course, the national bank could not operate branches even within its own city. Under the provisions of this law a considerable number of branches of national banks were established.

The most recent development of branch banking in the national banking field is the provision of the Banking Act of 1933 which allows the national banks to establish branches within those states which allow their state banks to operate branches, and

under the same terms. For example, if the state law provides for city-wide branches, then the national banks may have city-wide branches; and if the state law provides for state-wide branches, the national banks may operate state-wide branches. The only difference between the status of state and national banks operating in the same state at the present time is that the national law requires a minimum capitalization of national banks before they can establish branches. The minimum capitalization is $100,000; and if the state has a population of more than 1,000,000 or a city whose population is more than 100,000, then the national banks in that state must have a capitalization of at least $500,000 in order to operate branches. Most states do not require of their own banks such a high capitalization as a condition of their operating branches.

The table on page 683 summarizes, by states, as of the close of 1933, the extent of branch banking in the United States. Of these 2752 branches 1651, or 60 per cent, were located in the cities of their head offices, and 388 more were situated in the counties of their head offices. The remaining 713 branches were located outside the counties of their head offices.

As of the close of 1933 the legal status of branch banking in the several states may be outlined as follows:

1. States which prohibit branch banking:

Alabama	Illinois	Nebraska
Arkansas	Kansas	New Mexico
Colorado	Minnesota	Texas
Florida	Missouri	West Virginia

Four of the above-listed states, Alabama, Arkansas, Minnesota, and Nebraska, have a few branches in operation, but further extension is prohibited.

2. States which have no definite branch-banking legislation:

Kentucky	North Dakota	Wyoming
New Hampshire	Oklahoma	

Both Kentucky and New Hampshire, however, have banks which operate branches.

THE EXTENT OF BRANCH BANKING IN THE UNITED STATES
(AS OF DECEMBER 31, 1933)

STATE	NUMBER OF BANKS OPERATING BRANCHES	NUMBER OF BRANCHES
Alabama	1	1
Arizona	3	13
Arkansas	6	6
California	36	783
Connecticut	3	7
Delaware	6	12
District of Columbia	10	27
Georgia	9	24
Idaho	2	23
Indiana	17	32
Iowa	35	52
Kentucky	7	24
Louisiana	25	48
Maine	16	52
Maryland	22	79
Massachusetts	39	102
Michigan	20	141
Minnesota	2	6
Mississippi	10	24
Nebraska	2	2
New Hampshire	1	1
New Jersey	47	105
New York	66	619
North Carolina	19	51
Ohio	28	164
Oregon	3	27
Pennsylvania	28	82
Rhode Island	10	32
South Carolina	5	24
Tennessee	18	46
Utah	3	9
Vermont	9	12
Virginia	40	69
Washington	6	23
Wisconsin	21	30
Total	575	2752

3. States which permit branches on a restricted basis, usually within the cities or counties of their head offices:

Georgia	Massachusetts	Ohio
Indiana	Mississippi	Pennsylvania
Iowa	Montana	Tennessee
Louisiana	New Jersey	Wisconsin
Maine	New York	

4. States which permit state-wide branch banking:

Arizona	Maryland	South Carolina
California	Michigan	South Dakota
Connecticut	Nevada	Utah
Delaware	North Carolina	Vermont
District of Columbia	Oregon	Virginia
Idaho	Rhode Island	Washington

At the close of 1933 seventeen states plus the District of Columbia permitted state-wide branch banking. On June 30, 1930, only nine states in addition to the District of Columbia had such provisions. This gives some indication of the tendency during recent years on the part of more and more states toward liberalizing their branch-banking laws.

New York State has recently (1934) passed a law which allows its banks, and hence national banks, to establish branches within certain geographical areas. The state is divided into nine districts according to counties. The metropolitan area of New York City, however, is split between two districts. The New York law had previously allowed branches to be established only within the cities of the head offices. There is a provision in the new law which states that no branches may be opened without the consent of the superintendent of banks and the state banking board, and that branches may be opened only by taking over existing banks, unless the community has no banking facilities. In that case *new* branches may be opened.

The table on page 685 gives the number of banks in the United States which were operating branches during the years from 1919 to 1933. The total number of branches is likewise given.

From 1919 to 1928 there was a gradual increase in the number of banks in the United States which were operating branches; in 1928 the total reached 844. Since 1928 the number of banks

NUMBER OF BANKS OPERATING BRANCHES AND THE NUMBER OF THEIR BRANCHES, 1919–1933

YEAR	NUMBER OF BANKS	NUMBER OF BRANCHES
1919	476	1082
1920	524	1239
1921	535	1366
1922	608	1715
1923	673	2044
1924	716	2299
1925	784	2586
1926	787	2796
1927	833	3149
1928	844	3307
1929	816	3603
1930	799	3567
1931	737	3375
1932	747	3290
1933	575	2752

operating branches has slowly declined, but before 1933 this decline was not so rapid as the decline in the total number of banks. The largest number of branches, 3603, was reached in 1929. The number of branches has decreased since 1929, but not in proportion to the decrease in the number of banks operating branches.

The table on page 686 gives the number of banks operating branches in the United States from 1919 to 1931, together with their loans and investments and the percentage relation between branch loans and investments and total loans and investments. The growth in the volume of business done by branch-banking systems as measured by loans and investments was greatest between 1919 and 1927. Since 1927 branch systems have been doing about one half of our banking business.

As of the close of 1931, group and chain banking systems possessed 25 per cent of the loans and investments of all commercial banks, and if branch-banking systems possessed another 50 per cent, then the two groups (branch, and chain and group) were doing approximately three fourths of the commercial banking business of this country at that time. This assumes that loans and investments may be taken as a measure of the volume of business done.

THE RELATIVE VOLUME OF BUSINESS DONE BY BRANCH-BANKING SYSTEMS AS MEASURED BY THEIR LOANS AND INVESTMENTS, 1919–1931

YEAR	NUMBER OF BANKS	LOANS AND INVESTMENTS OF BANKS WITH BRANCHES	PERCENTAGE RELATION BETWEEN BRANCH LOANS AND INVESTMENTS AND TOTAL LOANS AND INVESTMENTS
1919	476	$5,779,000,000	18.2
1920	524	7,291,000,000	20.0
1921	535	7,904,000,000	23.0
1922	608	9,104,000,000	26.8
1923	673	11,338,000,000	30.5
1924	716	14,072,000,000	36.9
1925	784	16,430,000,000	39.8
1926	787	17,881,000,000	41.1
1927	833	22,484,000,000	49.8
1928	844	23,641,000,000	49.2
1929	816	24,731,000,000	50.6
1930	799	24,338,000,000	50.3
1931	737	22,263,000,000	50.0

Advantages of Branch Banking. After setting forth a number of the advantages of branch banking as given by the advocates of such a system, we will discuss the disadvantages. It is interesting to note that some of the arguments used in favor of branch banking are likewise used against it. The list of advantages which follows is not necessarily exhaustive:

1. *Greater diversification of loans and investments.* There are two reasons why a branch-banking system makes it possible to secure greater diversification of loans and investments. First, from the very nature of the branch system a larger geographical area is covered. This fact alone would contribute toward greater diversification of the loans because more diversified business interests would be served. Second, the branch system has a larger volume of investment funds available, and therefore can obtain a more diversified investment portfolio if it chooses to do so.

In the first part of this chapter it was pointed out that the Comptroller of the Currency gave "Local financial depression from unforeseen agricultural or financial disaster" as one of the

principal causes of the failure of national banks. This risk, of course, could not be eliminated by a branch-banking system, but loans and investments could be more diversified. Local land booms, such as those occurring in Florida and Iowa, might not demoralize the community so completely if branch-banking systems were in operation. Some proponents of branch banking likewise point out that the booms themselves might never have occurred if the granting of loans to finance such speculation had been partially, at least, in the hands of persons not exclusively guided by local conditions. Banks in the "thick" of a land boom or any other type of boom are naturally subject to the local contagion. Since the branch system extends beyond the limits of the boom, the head office might begin to curtail loans before the local manager of the branch or the local banker would feel it was necessary.

It is true that unless branch banking were extended even beyond state lines, there would be no reason to assume that in some states the branch system would obtain a very much more diversified loan portfolio than the unit system. There are some states which are almost exclusively devoted to the production of two or three agricultural crops.

2. *Economy in operation.* There are several reasons why it might be possible to operate a branch-banking system on a more economical basis than the unit-banking system. First, clearance of checks would be made even more simple than at the present time. There was a decided improvement in our check-clearance-and-collection system with the introduction of the Federal Reserve System. The branch system, however, could carry this even farther. Checks drawn in one locality might be against the branch of the same bank in another locality. These checks could be very easily cleared by bookkeeping entries in the head office and in the various branches. Second, small branch offices could be operated in communities which really need some sort of banking facilities, and yet which cannot support an individual unit bank. The branch office might include only one or two employees carrying on mostly just the business of a teller's window. The organization of a unit system would require incorporation, a

board of directors, officers, etc. Third, a branch-banking system could obtain such advantages of large-scale business as are possible in the banking field. Small transfers of funds between various parts of the United States and between the United States and other countries could be collected together and provided for in a single transaction. Investments can be more economically made in large amounts than in small amounts. Similar examples could be cited from the many other activities of banks.

The inadequate earnings of small banks were cause for concern even during prosperous years. The Comptroller of the Currency, Mr. John Pole, wrote in 1929:

> A study of bank earnings covering the last two or three years, which have been years of general business prosperity, shows that a large percentage of banks outside of the principal cities — constituting three-fourths of our banks and serving the majority of our population — are operating with insufficient earnings.
>
> . . . The average earnings of all banks, national and State, in one of our great agricultural States for the years 1924 to 1928, inclusive, were less than 1½% on invested capital. In four other great Middle Western States, comprising both agricultural and industrial activities, 2,053 banks, national and State, earned in 1927 less than 6% on invested capital.[1]

Mr. Joseph Stagg Lawrence, who opposes banking concentration, admits the economies of large-scale banking, but remarks:

> In spite of some of the very impressive economies of large scale banking which our statistical study has revealed, it must be borne in mind that the greater portion of these are attributable to the excellent record of the great banks of New York City. The expansion of banking in an agricultural community or in a region that shows less intense commercial concentration may provide a verdict of an entirely different nature.[2]

3. *More competent management.* The management of a branch bank is not necessarily more competent than the management of a unit system. An analogous situation exists in the field of retail groceries. Some grocery chains have been very successful, but

[1] J. W. Pole, "The Need of a New Banking Policy," *Commercial and Financial Chronicle* (October 19, 1929), Vol. 129, p. 65.

[2] Joseph S. Lawrence, *Banking Concentration in the United States*, p. 183.

there still exist situations where small independents operating alongside a chain store have been able to retain most of the business of the community. It is true, however, that the branch-banking system extends an opportunity for extensive training which is not possible in the unit system. The branch manager may not be more able than the executive officer of the local unit, but it is possible to give to the branch manager very extensive training in the various departments before he is put into an executive position. Many cases could be cited to show that the management of small unit banks is sometimes "bought," not earned. An example will illustrate this point: A successful young Middle Western farmer was told by his physician that, if he did not give up the strenuous labor of the farm, he would probably not live very much longer. The young farmer was perplexed, because he was not familiar with any other kind of work. There was an opportunity, however, for him to purchase the controlling interest in the bank of the neighboring town. This he did, and he became the cashier (the chief executive officer) of the bank.

A branch system might be able to attract more able men because of the higher salaries which it could afford to pay. This does not necessarily mean that the branch managers would receive higher pay than the executives of the unit banks, but the *officers* of the branch system might be of a higher caliber for this reason.

4. *Economy of reserves.* The establishment of the Federal Reserve System in 1913 led to an economy of reserves, because all member-bank reserves have to be kept with Federal reserve banks. The branch-banking system, of course, would have to keep relatively as large a legal reserve as the unit bank, but the so-called secondary reserve might be made available to any one particular branch in times of unusual stress. This secondary reserve, therefore, might not have to be as large relatively for the branch system as for the unit bank. It is perhaps an exaggeration to say that the entire resources of the branch system may be made available to any particular branch, but a great deal can be done in this direction.

5. *Mobility of bank credit.* One obstacle which has been encountered by the small unit bank has been its inability to lend

more than 10 per cent of its capital and surplus to any one borrower. This is a provision of the National Banking Act, and most state laws have similar provisions. A small unit bank situated in a community which is supported almost entirely by a branch of a large industrial concern, such as a canning factory, is not able to secure the business of that local unit because of the 10 per cent limitation. If there were a branch system operating in that community, then the resources of the entire system, if necessary, could be made available to the local industrial enterprise.

If the loans of a branch system were diversified, it is conceivable that during certain times of the year most of the bank's funds might be made available to one group of borrowers, and during other times of the year the funds could be transferred to another community and be made available to a different group of borrowers. This would be especially advantageous if the business interests served by the branch system were such that funds were needed by the various groups at different times of the year.

6. *Easier supervision.* The supervision argument is used both by the proponents of the branch-banking system and by its opponents. It is contended by the proponents of branch banking that by cutting down the number of banks in operation supervision could be made more effective. More thorough and more frequent examinations might be made of the head office because most of the information necessary is usually kept in the head office. More intimate contacts could be made between the examiners and the personnel of the banks.

7. *Shifts in population of less consequence.* Many unit banks have suffered because of the "drying up" of their communities. This is especially true of small communities which have to rely almost exclusively on a single business. During the World War, for example, there was a small town in one of the Middle Western states which became the center for the purchase of mules and horses for the Allied armies. This was an extremely lively community from about 1916 to 1919, but the collapse which followed was almost complete. It would be easier to remove a branch

from a "decaying" center, and likewise less expensive, than it would be to liquidate completely a local unit. Canada has effectively used this advantage of the branch-banking system. When mining towns are opened up, branch offices, sometimes with very meager physical facilities, are established; in this way, without undergoing large investments, the branch system may serve a community which perhaps will need banking facilities for only a short period. This is not impossible under the unit system, but it is more difficult.

8. *Uniformity of interest rates.* Proponents of branch banking have for some time pointed to more uniformity of interest rates as one of the leading advantages of branch banking. More uniformity than exists at the present time would no doubt be desirable, but a condition of complete uniformity would not be desirable. Without getting into a theoretical discussion of interest rates, it may be pointed out that the difference in interest rates is primarily due to a difference in risk. So long, therefore, as the risks on the different classes of loans throughout the United States are dissimilar, there should be varying levels of interest rates. The Federal Reserve System has been instrumental in bringing about somewhat more uniform interest rates between the various sections of the United States and likewise less seasonal variations in interest rates. A branch-banking system might further aid in this development. Whether or not a branch-banking system would tend to lower the general level of rates would depend entirely upon whether or not it could operate more economically than the independent-unit system.

Disadvantages of Branch Banking. Here too no attempt is made to list all the disadvantages of branch banking, but just the ones which are most frequently put forth by those who are not in favor of it.

1. *Banking not suited to mass methods.* There are a number of variations of this argument against branch banking. The most important one, however, is that banking cannot be conducted on an impersonal basis, as may be the case with a retail business. Character is an extremely important element in the list of qualifications of a borrower, and character can be evaluated only on the

basis of long acquaintance and continuous dealings. This requires that the local banker be not only a leader in the financial community but also a leader in the social activities of the community. And this, according to the anti-branch-banking group, makes it undesirable for branch managers who received their training in other communities to pass upon the loan applications of local borrowers.

The importance of this "man of the community" qualification is often exaggerated. It may be desirable at times for the local executive banking officer to be able to pass upon loans on a very impersonal basis. There may be cases where a borrower has had a continuous and favorable relationship with a local bank for a number of years, and yet, for some reason or other, this borrower may not deserve another loan. It is extremely difficult for an officer who has dealt with him for a number of years to refuse him, although his better judgment may suggest that he do so. One of the banks in New York State recently wished to establish a branch in a small upstate community. In order to appear sympathetic toward local management and civic spirit, and in order not to be accused of "absentee management," the bank suggested that an advisory committee consisting of local businessmen be set up to aid in choosing a local manager. The businessmen politely but emphatically declined, and said: "Local management was our trouble. Everybody was doing everybody else favors on the mutual-help plan and out of old association, and if you asked for a loan the whole town knew it."

In some cases the branch manager has been accused of being an office boy and not a loan officer. This may be true in some cases, but it need not be so. It may be a convenient excuse, when the branch manager wishes to refuse the application of the borrower, to "pass the buck" to the head office. The local chain-grocery-store's manager frequently does this when his customers ask for an extension of credit.

2. *Branch banking tends toward monopoly.* It is contended that an extension of branch-banking privileges would so greatly reduce the number of banks in this country that soon a very few large banks would control all our banking business. But one may grant

the truth of this and still not be obliged to admit that monopoly would necessarily result. In the production of low-priced automobiles at the present time there are only three principal producers, and yet the competition of these three is extremely keen. Even at the present time less than 1 per cent of the banks of this country do more than half of the banking business. Canada furnishes a good example of keen banking competition, and yet only a few branch systems control virtually all the banking business there.

3. *More difficult supervision.* It has been pointed out by those who oppose branch banking that a large number of branches would make examinations very difficult unless the head office and each branch office could be examined simultaneously. Such a procedure would necessitate a very large examination staff.

The failure record of our banking system during the last twelve years conclusively proves that we must revise our system. Whether or not branch banking is a solution of most of our present weaknesses cannot be said with any degree of finality. The experience of other countries would seem to indicate that the branch system is more effective for them than the independent-unit system has been for us. No other country in the world, however, which needs the amount of banking facilities that the United States needs, has as large a geographical area to be covered by its banking system. In some respects, therefore, our situation may not be comparable to that of other countries which have had great success with the branch-banking system. Our limited experience with the branch-banking system does not furnish conclusive evidence one way or the other. To operate a branch system within a system which is predominantly made up of independent units is very difficult. Therefore our experience, which some say is highly successful, while others point to it as proof of the ineffectiveness of the branch-banking system, may not be helpful in making a final evaluation. The legislative acts of the last few years, however, definitely point to a further extension of branch banking. We, no doubt, will see a greater extension of its influence in the future.

Few Comptrollers of the Currency have been as enthusiastic about branch banking as John W. Pole. In the spring of 1932 he wrote:

My idea is that it might be found feasible to permit national banks to extend branches into the trade area of the city in which they may be situated. I realize that while the term "trade area" itself is susceptible of definition there may be found some practical difficulties in mapping out a given trade area. Theoretically, of course, every city, no matter how small, might be said to have a trade area but it would prove no solution at all to the rural bank situation to permit small country banks to establish branches in such trade areas.

The trade area which I have in mind may be called the metropolitan trade area. Such an area would circumscribe the geographical territory which embraces the flow of trade from the rural communities and small cities to a larger commercial center. Branch banking extended by metropolitan national banks into such a trade area would naturally give to these outlying rural communities and smaller cities a strong metropolitan banking service.

It has been urged as a consideration against branch banking that legislation permitting its extension to the rural districts would lead to the concentration of all of the banking capital in the United States in the New York banks and under the control of a comparatively small group of financiers.

It might be possible theoretically to conceive of this situation arising if Congress permitted the national banks to engage in nation-wide branch banking at the present time, although many students of banking and many practical bankers are of the opinion that even were nation-wide branch banking permitted by law its spread would be a slow development out from the various commercial centers; that the country is too large and its financial operations on too vast a scale to permit of complete concentration in New York City. The banking resources of the United States are constantly increasing as the country develops industrially and commercially.

However, my proposal would, it seems to me, clearly tend to decentralize banking capital through a system of regional branch banking. The metropolitan banks in the city of New York have always held a preeminent position and under any system of banking which would follow the normal course of business they will continue to increase in size and influence. Notwithstanding this aspect of the matter, branch banking emanating from commercial centers outside of New York City

into surrounding trade areas would cause the New York banks to decrease in relative importance. There would be concentration of capital but it would be a regional concentration with local characteristics. Banks in Detroit, Cleveland, Boston, Atlanta, New Orleans, St. Louis, Buffalo, Minneapolis, and other such local commercial centers would grow into institutions fully capable of taking care of the financial requirements of their trade area communities. Instead of nearly all of the largest banks being situated in New York City there would be in every such commercial center banks whose resources would approach or exceed a billion dollars. Instead of being a menace, would not such banks become a source of pride to the community in which they are situated, bringing prestige and new business to the city and taking out to the rural communities a strong and highly developed banking service with safety to the depositors there? Would not such a system of branch banking lead to an active competition for business which would naturally result in the local community obtaining cheaper and better banking service?[1]

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CHAPTER XXX

RECENT MONETARY AND BANKING LEGISLATION

The primary purpose of this chapter is to collect at one point all the national monetary and banking legislation of the last few years and to list the enactments in chronological order. In addition there are included at the close of the chapter various monetary and banking developments which are only indirectly related to legislative enactments and, in some instances, such as that of the World Monetary Conference during the summer of 1933, are in no way connected with legislative acts. By recent legislation is meant, in general, only that which has been passed since the beginning of the world-wide depression in 1929. At the time of passage most of these laws were referred to as emergency enactments; some of them, however, have come to be regarded as reform measures of a more permanent character.

It is difficult, if not impossible, to differentiate between strictly monetary and banking legislation and other types of legislation. In general all that is meant by the former is legislation of a financial character. The National Recovery Act, therefore, will not be included in this summary, nor will the Agricultural Adjustment Act, except for the legislative rider attached to it, which is usually referred to as the Inflation Bill. In addition to the provisions of these monetary and banking laws, which will be presented in a summary fashion, a brief discussion of their more important features will be given.

National Credit Corporation, October 13, 1931. The National Credit Corporation was an agency created by Congress primarily for the purpose of aiding banks. It was a mutual organization, obtaining its funds from the sale of interest-bearing notes to the banks of the country. It was authorized to issue these notes up to $1,000,000,000. One or more banking associations were to be

set up in each Federal reserve district. Each bank which became a member of the district association was asked to subscribe to the notes of the National Credit Corporation to a maximum amount of 2 per cent of its net demand and time deposits. The corporation itself was authorized, in turn, to make loans to individual banks, and these loans were to be secured by a bank's own note supported by adequate collateral, and further secured by the joint liability of all the member banks of its association.

The very nature of the organization of the National Credit Corporation foredoomed it to failure. Individual banks would naturally be very hesitant in asking for loans from an association made up of its competitors. Moreover, the obtaining of a loan from this agency might cause suspicion to fall upon the borrowing bank, with the result that its customers would start deposit withdrawals, while, on the other hand, the joint liability of all the member banks of the association caused loans to be made very sparingly. At this time very few banks felt that they could assume additional liability. From this setup it would seem that the stronger banks were to come to the aid of the weaker banks, and a number of the larger and supposedly stronger banks joined as a good-will gesture. The subscribers to the notes of the National Credit Corporation were called upon for a total of only $135,000,000, and it was soon realized that this organization would be ineffective in checking a bank panic involving a system which had deposits of more than $45,000,000,000. The administration must have realized this situation, for it began plans for a much larger and more effective device before the National Credit Corporation was well under way. As soon as the Reconstruction Finance Corporation was created, steps were taken to liquidate the National Credit Corporation.

Reconstruction Finance Corporation, January 22, 1932. The Reconstruction Finance Corporation is a special type of banking institution owned and controlled by the United States government. Its present resources make it the largest financial institution in the world. The precedent for such an organization was the War Finance Corporation, and the first chairman of the Reconstruction Finance Corporation was General Charles G. Dawes,

who had been Vice-President of the United States from 1925 to 1929. Although it was chartered for ten years, it was originally authorized to make loans for only one year. President Hoover, as authorized in the law, extended this period to January 22, 1934, and President Roosevelt signed bills extending the lending activities of the corporation first to February 1, 1935, and later to February 1, 1937.

The corporation secured its funds by a capital subscription of $500,000,000, furnished by the United States Treasury, and, through the sale of its own obligations, it might raise more funds as they were needed, not to exceed $1,500,000,000. These obligations, although not eligible for rediscount or purchase by the Federal reserve banks, are guaranteed both as to interest and principal by the Federal government. The Treasury is authorized to buy and sell them. The management of the corporation is vested in a board of directors of seven members, consisting of the Secretary of the Treasury and six other members who are appointed by the President for a term of two years, at an annual salary of $10,000.

When the President renewed the life of the corporation for one year in January, 1934, he likewise increased its capital by $850,000,000, and authorized it to make available for new loans any repayments which had been received up to that time. Its lending power has been further increased by subsequent acts.

During the early history of the corporation it issued very few statements of condition; but, when it was found that a large loan had been made to a Chicago bank in which the corporation's first chairman was interested, the act was amended by requiring monthly statements, and the corporation was prohibited from granting loans to any financial institution of which any member of the board of directors was likewise a director or officer, or if such had been the case during a twelve-month period preceding the approval of the loan.

The corporation was authorized to lend to banks of all kinds, building and loan associations, credit corporations, and insurance companies. In addition it might aid in the temporary financing of railroads which were unable to obtain funds under reasonable

terms in the usual manner from banks and from the public. For these railroad loans the corporation must have the approval of the Interstate Commerce Commission. Loans of $200,000,000 might likewise be made to banks in the process of liquidation, and the Secretary of Agriculture was allotted $50,000,000 for loans to farmers for crop-production purposes. The original act stated that all loans were to be fully and adequately secured, and were not to exceed three years in maturity, although renewing privileges would make it possible for loans to be granted for a maximum of five years from the date of the original grant. Just what constituted full and adequate security, of course, was left to the discretion of the corporation's board of directors.

As originally set up the corporation was not to be a competitor of the existing commercial and investment banks of the country, but rather it was to supply funds which could not be obtained through regular banking channels. Later, however, it was authorized to grant loans directly to industry, and the chairman of the corporation stated on several occasions that if the banks did not lend more freely to industry the government would.[1]

A statement of the business done by the Reconstruction Finance Corporation from February 2, 1932, to October 31, 1934, appears on pages 700 and 701. These detailed operations may be summarized in the following manner:

Agency	Amount	Percentage of Total
Banks and trust companies (direct loans)	$1,698,906,339.86	26.8
Loans for purchase of preferred stock, capital notes, and debentures of banks and trust companies	906,764,406.90	14.3
Railroads	423,801,021.11	6.7
Other credit agencies	1,094,173,222.24	17.3
Government agencies and states for relief	1,720,725,452.25	27.2
All other loans	485,081,479.90	7.7
	$6,329,451,922.26	100.0
Cancellations and amounts still available	$1,941,615,883.82	

[1] See the address of Chairman Jesse Jones before the New York State Bankers Association in January, 1934. President Roosevelt had previously said at the American Bankers Association in Chicago in September, 1933, that the banks "can and will" extend more credit to industry.

STATEMENT OF THE RECONSTRUCTION FINANCE CORPORATION
FEBRUARY 2, 1932, TO OCTOBER 31, 1934[1]

To Governmental agencies under provisions of existing statutes:		
To the Secretary of the Treasury to purchase capital stock of Home Owners' Loan Corporation . .	$200,000,000.00	
And capital stock of Federal Home Loan Banks	81,645,700.00	
To the Farm Loan Commissioner to make loans to farmers	145,000,000.00	
And to Joint Stock Land Banks .	2,600,000.00	
To the Federal Farm Mortgage Corporation for loans to farmers .	55,000,000.00	
To the Federal Housing Administrator to create Mutual Mortgage Insurance Fund	15,000,000.00	
To the Secretary of Agriculture for crop loans to farmers (net) . .	115,000,000.00	
To the government of the Farm Credit Administration for revolving fund to provide capital for Production Credit corporations	40,500,000.00	
To the Regional Agricultural Credit Corporations for purchase of capital stock	44,500,000.00	
For expenses (since May 27, 1933) .	6,904,289.73	
		$706,149,989.73
For relief —		
To States directly by Corporation	$299,984,999.00	
To States on certification of Federal Relief Administrator . . .	499,590,463.52	
Under Emergency Appropriation Act, 1935	215,000,000.00	
		1,014,575,462.52
		$1,720,725,452.25

[1] From the *Commercial and Financial Chronicle* for November 17, 1934, p. 3090.

Loans under Section 5 —		
To banks and trust companies	$1,698,906,339.86	
Railroads	423,801,021.11	
Mortgage loan companies	278,130,180.70	
Federal Land Banks	387,236,000.00	
Regional Agricultural Credit Corporations	172,666,166.98	
Building and loan associations	114,972,092.54	
Insurance companies	89,517,863.45	
Joint Stock Land Banks	15,393,767.34	
Livestock Credit Corporations	12,762,732.81	
Federal Intermediate Credit Banks	9,250,000.00	
State funds for insurance of public moneys	8,387,715.88	
Agricultural Credit Corporations	5,261,130.27	
Credit unions	580,854.21	
Processors or distributors for payment of processing tax	14,718.06	
		$3,216,880,583.21
Disbursed for purchase of preferred stock, capital notes, and debentures of banks and trust companies (including $20,101,205 loans secured by preferred stock)		906,764,406.90
Loans secured by preferred stock of insurance companies (including $100,000 preferred stock purchased)		25,975,000.00
Loans to the Secretary of Agriculture to purchase cotton		3,300,000.00
Loans for refinancing drainage, levee, and irrigation districts		11,146,845.88
Loans to public school authorities for payment of teachers' salaries		22,300,000.00
Loans to aid in financing self-liquidating construction projects (including $8,560,205.10 for repair and reconstruction of buildings damaged by earthquake, fire, and tornado)		118,767,961.55
Loans to aid in financing the sale of agricultural surpluses in foreign markets		19,796,952.32
Loans to industrial and commercial businesses		3,318,645.18
Loans on assets of closed banks		22,500.00
Loans to finance the carrying and orderly marketing of agricultural commodities and livestock —		
To the Commodity Credit Corporation for —		
Loans on cotton	$148,951,771.13	
Loans on corn	121,011,084.76	
Loans on turpentine	7,971.91	
	$269,970,827.80	
To others	10,482,747.17	
		280,453,574.97

During the two and three-quarter years (up to November 1, 1934) of its operation the Reconstruction Finance Corporation lent approximately $6,300,000,000. Banks were the chief recipients of these funds. They received either through direct loans or through loans for the purchase of preferred stock, capital debentures, etc., 41.1 per cent of the total loans made. Government agencies and states were next in line, with 27.2 per cent of the total loans made. Contrary to the usual impression, railroads, although receiving almost $500,000,000, came in for only 6.7 per cent of the total. The direct loans which the Reconstruction Finance Corporation made to industry were almost negligible. As of the close of October, 1934, of the total disbursements $4,608,726,470.01 had been expended for activities of the corporation other than advances to government agencies and for relief, and of this sum $2,251,777,513.12, or approximately 49 per cent, had been repaid. Loans had been authorized to 7291 banks and 70 railroads.

The Glass-Steagall Act, February 24, 1932. The Glass-Steagall Act was in every sense an emergency measure, although some of its provisions may later be drafted into permanent legislation. During the fall of 1931 the United States experienced an unprecedented volume of bank failures, 1360 banks having closed their doors during the last four months of the year. In addition it experienced its greatest gold outflow in history, losing approximately $400,000,000 during a six weeks' period.[1] The two purposes of the act were to permit the Federal reserve banks to make loans to member banks under easier terms than were allowed under the Federal Reserve Act and to strengthen the position of the Federal reserve banks so that they could more readily meet an external gold drain and an increased demand for domestic currency.

In order to provide temporary relief for those banks which were unable to borrow from the reserve banks under previous requirements, the Glass-Steagall Act enabled the member banks, primarily, to obtain advances on the basis of their own promissory notes. These notes did not have to be secured by eligible com-

[1] See pages 134 and 731.

mercial paper or government bonds; but security was required, and it had to be satisfactory to the Federal reserve bank extending the loan and to at least five members of the Federal Reserve Board. Nonmember banks were benefited to the extent that they might receive aid from their city correspondents, which were in turn members of the Federal Reserve System, and under special circumstances nonmember banks might obtain funds directly from the Federal reserve banks. Closely related to this provision was the power given to the Federal reserve banks to make advances, under the same security as outlined above, to groups of banks for distribution to such banks within each group as needed aid. Both these provisions were limited to one year after the passage of the act, but have subsequently been renewed.

Very few loans have been made under either of the above-mentioned terms. During the year 1932 only $33,000,000 was lent under the first provision, and none under the second. It was not true that for the banking system as a whole a shortage of paper eligible for rediscount at the Federal banks existed. At the close of 1933, member banks held approximately $2,500,000,000 of eligible paper, in addition to about $4,500,000,000 of government securities — a total of over $7,000,000,000. This amount was more than ten times the volume of borrowings by the member banks from the Federal reserve banks at that time. It does not seem, therefore, that there was a general lack of ability of the member banks to secure advances from the reserve banks, although there were no doubt a number of individual banks which were unable to obtain the accommodation they desired because of the lack of eligible paper.

The second purpose of the act, and the more important purpose, at least from a practical standpoint, had to do with the security behind Federal reserve notes. Up to this time Federal reserve notes were backed by at least 40 per cent gold, and the remainder of the 100 per cent requirement could be made up of the commercial paper held by the Federal reserve banks. At the time of the passage of the act the reserve banks held such a small volume of commercial paper that their Federal reserve notes were backed by almost 70 per cent gold. If this country were to

experience another gold outflow as large as that which occurred during the fall of 1931, with a continued increase in internal circulation, the excess gold held by the Federal reserve banks would soon be exhausted. In order to remedy this situation the Glass-Steagall Act permitted the reserve banks to use their holdings of government securities as part of the commercial-paper-reserve requirement behind Federal reserve notes, if the reserve banks did not hold commercial paper to the amount of 60 per cent of note issues. The Federal reserve banks were thus enabled to purchase more government securities without jeopardizing their gold position. On February 14, 1935, the President, by proclamation, extended the life of this section of the Glass-Steagall Act to March 3, 1937.

Just before the passage of the Glass-Steagall Act the amount of Federal reserve notes in existence was approximately $2,900,000,000, and the amount of eligible paper in the hands of the reserve banks was about $900,000,000. This meant that the remaining $2,000,000,000 reserve requirement had to take the form of gold. As a consequence, in spite of the fact that the United States was holding a larger amount of gold than any other country in the world, our "free gold" totaled only about $400,000,000. This means merely that we had only $400,000,000 of gold which was available for export or for additional backing for Federal reserve notes. In addition to the gold which was being used as reserve for Federal reserve notes, the Federal reserve banks were using some of their gold as reserve for their deposits. Federal reserve bank deposits must be backed by 35 per cent gold or lawful money.

At the time of the passage of the act, however, the Federal reserve banks were holding approximately $750,000,000 of United States securities. By using these as a part of the reserve behind the Federal reserve notes, an equal amount of gold could be freed. The Glass-Steagall Act, therefore, freed approximately $750,000,000 of gold, and made it possible for even more gold to be released if and when the Federal reserve banks purchased more government securities. Sixty per cent of the backing behind the $2,900,000,000 of Federal reserve notes could now be made

up of eligible paper and government securities held by the Federal reserve banks. The holdings of these two items by the Federal reserve banks totaled only approximately $1,150,000,000, while some $1,750,000,000 could be used for the 60 per cent requirement.

Almost immediately after the passage of the Glass-Steagall Act the Federal Reserve System embarked upon the greatest open-market purchasing program which was ever known in central banking history. Over $1,000,000,000 in government securities was added to its holdings between March and August, which brought the portfolio at the end of the period to the all-time record level of approximately $1,850,000,000. For a number of weeks the reserve banks were purchasing government securities at the rate of $100,000,000 a week. The purpose of these purchases, of course, was to put the member banks in a better reserve position, so that they would be more likely to grant loans to business borrowers. During this period, however, such loans continued to decline.

Federal Home Loan Bank Act, July 22, 1932. This act provided for the establishment of twelve Federal Home Loan Banks [1] for the purpose of rediscounting mortgages for the principal institutions holding home mortgages. It was likewise possible under this act for direct loans to be made to individual homeowners; but very few were ever consummated, because of the unworkable terms under which such loans were to be made.

Each Federal Home Loan Bank began operation with an authorized capital of from $6,000,000 to $20,000,000. The initial capital was furnished by the Reconstruction Finance Corporation. The member institutions will ultimately own the banks.

Only those institutions could borrow from the Federal Home Loan Banks which were members, and membership consisted of purchasing stock in the district bank to the extent of 1 per cent

[1] These banks are located at

Boston, Mass.	Cincinnati, Ohio	Little Rock, Ark.
Newark, N. J.	Indianapolis, Ind.	Topeka, Kans.
Pittsburgh, Pa.	Chicago, Ill.	Portland, Oreg.
Winston-Salem, N. C.	Des Moines, Iowa	Los Angeles, Calif.

of the unpaid principal of a member institution's home-mortgage loans. Savings and loan associations, savings banks, and insurance companies are the principal members, although their membership is voluntary. Federal savings and loan associations automatically become members.

The management of the entire system was placed in the hands of the Federal Home Loan Bank Board, composed of five members appointed by the President, with the consent of the Senate. The control of each individual bank is in the hands of a board of eleven directors, two appointed by the Federal Home Loan Bank Board and nine elected by the member institutions.

All advances made to member institutions must be secured by home mortgages. The maturity of these mortgages may not exceed fifteen years, the value of a home may not be in excess of $20,000, and a dwelling may not be for more than three families. The amount of the advance is limited to 65 per cent of the unpaid principal of the mortgage used as security, but may not exceed 60 per cent of the value of the underlying real estate. The member institutions may not charge borrowers more than the legal interest rate of the state where the property is located or, in the absence of a maximum legal rate, more than 8 per cent per annum.

In addition to the capital furnished by the Reconstruction Finance Corporation and the member institutions, the Home Loan Banks are authorized to sell bonds or debentures secured by mortgages. These bonds are the joint obligation of the twelve banks. During periods when there is an inactive demand for advances by members, the banks may invest their funds in government bonds or in securities approved for the investment of trust funds.

The Home Loan Banks have not done a very large volume of business. As of September 29, 1934, their loans amounted to only $86,647,000. By April 1, 1935, they had declined to $72,637,000.

The Glass-Borah Rider to the Home Loan Bank Act, July 22, 1932. The purpose of this bill was to allow for an expansion in the volume of national-bank notes. Before this time only certain issues of government bonds were eligible as the 100 per cent security behind national-bank notes. Issues totaling $675,000,000

were eligible, most of which bore interest rates of 2 per cent. This rider made all government bonds bearing an interest rate of $3\frac{3}{8}$ per cent or less eligible for the backing of national-bank notes, increasing the eligible amount of such bonds from $675,000,000 to $3,763,000,000. However, national-bank notes could not be issued in excess of the paid-in capital stock of the banks. The latter provision set the maximum amount of national-bank notes which could be issued at $1,570,000,000, thus increasing the potential amount of additional national-bank notes which could be issued by slightly more than $900,000,000. Before the passage of this bill there were $652,000,000 of national-bank notes outstanding, and by the close of 1934 there were slightly less than $900,000,000. The powers of the Glass-Borah rider expired July 22, 1935. *All* national-bank notes are now being retired.

Emergency Banking Act, March 9, 1933. On Monday, March 6, 1933, President Roosevelt, who had been in office only two days, declared a national bank holiday. He immediately called Congress into special session, and on Thursday of the same week the Emergency Banking Act was passed. The principal provisions of this act were as follows:

1. Extensive power was granted the President to regulate all operations of Federal Reserve member banks and all foreign exchange transactions and gold movements during the national emergency. In addition, the Secretary of the Treasury at his discretion might call in all gold bullion, gold coin, or gold certificates owned domestically.

2. At his discretion, the Comptroller of the Currency might place a national bank in the hands of a conservator — a specialized type of receiver — whose function was to conserve the assets in the interest of depositors and creditors of the bank. Under his direction, a bank might be liquidated, reorganized, or opened without reorganization.

3. Reorganization was facilitated by making a plan effective when approved by the Comptroller and depositors and other creditors representing 75 per cent of such liabilities or owners of two-thirds of outstanding capital stock. It was further facilitated by permitting national banks to issue cumulative preferred stock which might be sold to the public or to the Reconstruction Finance Corporation.

4. The Federal Reserve Banks were authorized to issue emergency currency (Federal reserve bank notes) on the security of direct obliga-

tions of the United States or commercial paper and bankers' acceptances acquired under the provisions of the Federal Reserve Act. When backed by the United States securities, note issue might be up to 100 percent; but against other security, it was limited to 90 per cent. Such notes were redeemable in lawful money but not in gold.

5. The Federal reserve banks were also authorized to make advances to member banks on the security of any acceptable assets; and by a subsequent amendment (March 23), this privilege was extended to non-member banks during the emergency provided they complied with the requirements applying to member state banks.[1]

The two most important provisions of this act had to do with the reopening of the banks and with additional currency. The Federal reserve bank notes which were to be issued under this act could be backed by the principal assets of the Federal reserve banks.[2] It was announced that $2,000,000,000 of these Federal reserve bank notes were being printed, and that there would be a sufficient volume of them to provide for the demands of all depositors who wished their money in cash. The fact was, however, that if the depositors, who had claims of some $40,000,000,000 against the banks, had continued to ask for their deposits in cash, even the new issue of Federal reserve bank notes could not have satisfied their claims. But as soon as the public felt that all licensed banks were sound, it did not wish its deposits in cash. As a consequence only some $200,000,000 of Federal reserve bank notes were ever issued, and most of these were soon withdrawn from circulation.

The banks started reopening under the licensing provision on March 13, and by March 29 almost 13,000 of the 18,000 banks operating before the holiday had resumed operations on an unrestricted basis. As late as June 30, 1933, however, there were still 3078 unlicensed banks. At the close of October, 1934, there

[1] Woodworth, in the 1934 supplement to Kilborne's *Principles of Money and Banking* (McGraw-Hill Book Company), p. 19.

[2] On two previous occasions Federal reserve bank notes had been issued: in 1913, in order to replace national-bank notes, and in 1918, in order to replace the silver certificates which were being called in under the provisions of the Pittman Act, so that a large amount of silver bullion might be sold to England for use in India.

were 275 banks officially reported as unlicensed, but a number of these have since been taken from the list because of liquidation and receivership. There were 873 unlicensed banks placed in liquidation or receivership between January 1 and October 31, 1934. At the close of September, 1934, 15,834 banks, including 565 mutual savings banks, were open for business in the United States. Early in 1935 the total was about the same.

Inflation Bill, May 12, 1933. The exact title of this bill was the Thomas Amendment to the Agricultural Relief Act. Certain broad powers were given to the President and were to be used at his discretion. The principal provisions of the bill may be summarized as follows:

1. To allow for the purchase of $3,000,000,000 additional United States government obligations by the Federal reserve banks.
2. To issue $3,000,000,000 of greenbacks (United States notes) which would have no backing other than that of being direct obligations of the United States government.
3. To reduce the gold content of the dollar by as much as 50 per cent.
4. To provide for bimetallism, that is, the unlimited coinage of gold and silver at a fixed mint ratio.
5. To accept silver in payment of foreign indebtedness at 50 cents an ounce, and in an amount not to exceed $200,000,000. Silver certificates were to be issued, with the silver so taken in as backing.
6. To authorize the Federal Reserve Board to change the reserve requirement against time and demand deposits.

This bill contained almost all the suggested inflationary weapons. It was no doubt a good political move on the part of congressmen to give these discretionary powers to the President, so that they could tell their constituents, who were clamoring for inflationary measures, that they had done their bit and that it was now up to the President. There seems to be no doubt that a use of all these provisions to the maximum extent would have produced tremendous inflationary results. However, only provisions 1 and 3 were ever used to any very great extent. Provisions 2, 4, and 6 have not yet been used.

Although the Federal reserve banks had purchased tremendous volumes of United States securities following the enactment of the

Glass-Steagall Bill, they once more began to add to their holdings after the passage of this bill. By November of the same year their portfolios of United States securities had been enlarged by $600,000,000 to the new record total of $2,432,000,000. The President's gold-buying plan began late in October, 1933, and there was almost no change in the volume of United States securities held by the Federal reserve banks during the use of this new method of attempting to raise prices. The effect of these purchases was to increase the excess reserves of the member banks until by the close of 1933 this excess amounted to approximately $800,000,000.

The first important use of either of the provisions dealing with silver was made on December 21, 1933, when the government announced its readiness to purchase all newly mined silver at 64½ cents an ounce. Silver at that time was selling in the market at approximately 43 cents an ounce. One half of all the silver purchased under these terms was to be coined immediately, while the other half was to remain in the Treasury in the form of bullion. It is interesting to note that the portion of the silver to be converted into money was to be coined at $1.29 an ounce, twice the rate at which all the silver was being purchased. Therefore, by coining one half of the amount purchased, the government was able to pay for all its purchases and have 50 per cent left over as profit. (The difference between the buying rate and the coinage rate is technically known as a seigniorage charge.) This practice has continued, even since the passage of the Silver Purchase Act of 1934. The United States likewise received its $10,000,000 war-debt token payment from England on July 1, 1933, in the form of silver.

The President did not use the provision which has to do with reducing the gold content of the dollar until a subsequent bill was passed, the Gold Reserve Act of 1934.

At the time of the passage of the Inflation Bill the market ratio between gold and silver was approximately 70 to 1, but the President did not suggest any form of bimetallism, as he might have under the provisions of the bill.

Securities Act, May 27, 1933. The principal provisions of the Securities Act may be summarized as follows:

1. It is unlawful to offer for sale any security (securities in existence prior to July 1, 1933, of course, are not affected) not registered with the Federal Trade Commission. The registration statement must contain the names of all persons concerned with the issue and the amount of their interest in the issuing company; the capitalization of the issuing company and the proposed price and expenses of issuing this and previous issues; and financial statements of the issuing company. In all there are thirty-two different statements which must be filed with the Federal Trade Commission by any group issuing securities which fall under the provisions of the act.

2. If there is any inaccuracy or omission in the registration statement, the commission may notify the applicant and allow an opportunity for a hearing. If no action is taken within ten days, the commission may suspend the effectiveness of the application. (All statements must be filed with the commission twenty days before the issue may be offered for sale.)

3. If the statement is later found to be inaccurate or incomplete, the purchaser may sue the corporation, its officers, or its directors. If the inaccuracy can be traced to the accountants or engineers of the corporation, they are likewise liable. Any individual, however, may be cleared of liability if he can prove "good intent" and "belief" in the accuracy of the statement. The corporation, however, as a separate entity, is still liable. The purchaser has no recourse if the inaccuracy is known at the time of the purchase.

4. Any person willfully violating the act is criminally liable to fine of not more than $5000 or imprisonment for five years or both.

5. Securities which do not fall under the regulation of this act in general include railroad securities (these are regulated by the Interstate Commerce Commission), and government, state, and municipal securities.

Even before the passage of the Securities Act the volume of new corporate securities which were being issued in this country had dwindled to almost the vanishing point. During 1929 an average monthly volume of $835,000,000 of new securities were issued. In 1931 this fell to $216,000,000 per month, and in 1932 it fell to $54,000,000 a month. During 1933, half of which was

covered by the Securities Act,[1] the average monthly volume of new corporate securities issued fell to $14,000,000.

Investment houses claimed that the margin of profit under which they worked was too small to cover the risk involved in floating new securities under the provisions of the act. Almost immediately after its passage agitation arose for its amendment, and several amendments were made to it in the Securities Exchange Act, which was passed about a year later. These amendments will be summarized with the provisions of the Securities Exchange Act.[2]

Legal Tender Act, June 5, 1933. On June 5, 1933, Congress amended slightly the Inflation Bill, which it had passed on May 12, and in the same amendment it abolished all distinctions which had previously existed in the legal-tender power of the various elements of our currency. The following general power was granted:

> All coins and currencies of the United States (including Federal Reserve notes and circulating notes of Federal Reserve Banks and national banking associations) heretofore or hereafter coined or issued, shall be legal tender for all debts, public and private, public charges, taxes, duties and dues except that gold coins, when below the standard weight and limit of tolerance provided by law for the single piece, shall be legal tender only at valuation in proportion to their actual weight.

Abrogation of the Gold Clause, June 5, 1933. A joint resolution of Congress passed on June 5, 1933, expressly voided the gold clauses in all public and private bonds, mortgages, and contracts. This was believed necessary in order to carry out effectively the reform of the monetary standard which the President no doubt had in mind at the time. "Gold clause" refers to a statement which appeared in many obligations, to the effect that the debtor would pay the creditor, at maturity, in dollars of a standard gold weight and fineness or their equivalent. So long as gold was easily obtainable, such a provision was of no importance; but after our abandonment of the gold standard in the spring of 1933, gold was no longer obtainable.

[1] The Securities Act went into effect July 1, 1933.

[2] For a more complete discussion of these two acts see pages 617–623.

Many lawyers hold that this is a direct breach of contract, and is therefore illegal. Others feel that, even though it be legal, it is "immoral." Professor James W. Angell says: "I think that on a strict view the devaluation of the dollar and the abrogation of the gold clause were completely immoral. These acts were a flagrant violation of the solemn promises made in the Gold Standard Act of 1900, and of the solemn contracts made in subsequent government bond issues — notably the Liberty and the Victory loans." [1] On February 18, 1935, the Supreme Court by a 5 to 4 decision upheld the right of Congress to abrogate the gold clause in private, state, and city obligations, but not in those of the United States government (see Appendix).

Home Owners' Loan Corporation, June 13, 1933. The Home Owners' Loan Corporation was established in order to assist distressed homeowners. The Federal Home Loan Banks have continued to provide for home-financing institutions, such as savings and loan associations, savings banks, and insurance companies. Under the original law the Home Owners' Loan Corporation was authorized to refinance $2,000,000,000 of home mortgages. This was increased to $3,000,000,000 in June, 1934. On November 13, 1934, the corporation announced that it had granted loans and had on hand applications equal to approximately this amount, and it would therefore receive no more applications. Approximately $2,600,000,000 has been lent on 850,000 homes, and applications under consideration are expected to bring these totals to about $3,000,000,000 on well over 1,000,000 homes.

The capital of the corporation was provided by the Reconstruction Finance Corporation. The principal business of the corporation is to exchange its own bonds for home mortgages. The interest on its bonds was originally guaranteed, but an amendment passed in April, 1934, likewise provided for government guaranty of the principal. The maturity of the bonds is eighteen years, and the interest on them cannot exceed 4 per cent.

The holder of a mortgage on a home whose owner has been unable to meet either interest payments or principal payments or

[1] "Gold, Banks and the New Deal," by J. W. Angell, in the *Political Science Quarterly* for December, 1934, p. 492.

both may, through the co-operation of the homeowner, exchange the mortgage for a bond of the Home Owners' Loan Corporation. In the event of the exchange a new fifteen-year mortgage is given to the corporation; the homeowner will therefore deal directly with the corporation, and the former mortgage-holder will have a bond which is guaranteed by the government as to both interest and principal. The mortgage must be paid off in installments, and the rate of interest may not exceed 5 per cent. In addition to exchanging its bonds for home mortgages, the corporation may advance cash for the purchase of mortgages, but under the strict limitation that the amount of funds advanced shall not exceed 40 per cent of the appraised value of the property. The corporation may likewise make loans for the payment of taxes and assessments, and for repairs. An amendment of April, 1934, authorized the use of not more than $200,000,000 for rehabilitation, and the modernizing, rebuilding, and enlarging of homes.

As in the case of the Federal Home Loan Bank mortgages, only small homes are affected. The mortgage must be on a dwelling in which not more than four families live, and the value of the real estate cannot exceed $20,000. The amount of any mortgage exchanged for the bonds of the corporation, plus taxes, assessments, accrued interest, and all other encumbrances, must not exceed 80 per cent of the present value of the real estate or $14,000, whichever is the smaller.

The Home Owners' Loan Act likewise created the Federal Savings and Loan Associations. After the Federal Deposit Insurance Corporation went into effect in January, 1934, all deposits in the Federal Savings and Loan Associations were insured.

One result of the Home Owners' Loan Act has been to place savings banks, insurance companies, and mortgage companies in a better position, since they have been able to "unload" some of their less desirable mortgages on the Home Owners' Loan Corporation.

In June, 1935, the Home Owners' Loan Corporation was authorized to refinance an additional $1,750,000,000 of mortgages. This makes its total lending power almost $5,000,000,000.

The Banking Act of 1933 (June 16). Preliminary work on this bill was begun long before even the bank holiday of March, 1933,

occurred. Senator Carter Glass, soon after the break in the security markets in the fall of 1929, started to work on a banking-reform measure which would prevent a recurrence of the security market's boom of 1924–1929. In its early stages this bill was known as the Glass Bill, later as the Glass-Steagall Bill (not to be confused with the Glass-Steagall Bill which was actually passed in February, 1932), and ultimately as the Banking Act of 1933.

There is little doubt that the prime motivating force behind this legislation as it was orginally planned was to prevent the recurrence of a speculative period similar to that of 1924–1929. Before it was finally passed, however, a number of other elements crept in, so that in the ultimate act there were several provisions which were as important as and even more important than the provision dealing with the control of speculative activity. This change was to be expected, since defects other than the lack of control over the speculative activities of banks were not apparent until the depression became more severe.

The Banking Act of 1933 has been hailed as the most significant piece of banking legislation since the Federal Reserve Act. Its principal provisions are as follows:

1. Additional powers were granted to the Federal Reserve Board and to each Federal reserve bank in order to control more effectively the extension of speculative credit. The general character of this control is summarized in the following provision:

> Each federal reserve bank shall keep itself informed of the general character and amount of loans and investments of its member banks with a view to ascertaining whether undue use is being made of bank credit for the speculative carrying of or trading in securities, real estate, or commodities, or for any other purposes inconsistent with the maintenance of sound credit conditions; and, in determining whether to grant or refuse advances, rediscounts, or other credit accommodations, the federal reserve banks shall give consideration to such information. The chairman of the federal reserve banks shall report to the Federal Reserve Board any such undue use of bank credit by any member bank, together with his recommendations. Whenever, in the judgment of the Federal Reserve Board, any member bank is making such undue use of bank credit, the Board may, in its discretion, after reasonable notice and an opportunity for a hearing, suspend such bank from the use of the credit facilities of the Federal Reserve System and may terminate such suspension or may renew it from time to time.

Thus the Federal Reserve Board was directed to keep itself informed concerning an undue use of credit for speculative activity, including such activity with reference to securities, real estate, and commodities, and the Federal reserve banks were to deny credit to any member bank which seemed to be making undue use of its funds in the direction of speculation. The Federal Reserve Board was also authorized to fix for each Federal reserve district "the percentage of individual bank capital and surplus which may be represented by loans secured by stocks or bond collateral." Any member bank might be suspended by the Federal Reserve Board from the use of the credit facilities of the system, when, after official warning, it continued to make speculative loans. Ninety-day advances on promissory notes of member banks, secured by eligible paper or government securities, became due immediately if collateral loans were increased in spite of an official warning to curtail such activities. Member banks were prohibited from acting as the agent for any nonbanking interest in making collateral loans to brokers.

2. The first national scheme for the guaranty of bank deposits was incorporated in that portion of the act which created the Federal Deposit Insurance Corporation. It was originally intended that the permanent plan of this portion of the act should become effective July 1, 1934, but by an act of June 16, 1934, the temporary plan was extended for another year. In the permanent plan deposits of all banks which belong to the corporation are completely insured up to $10,000, deposit amounts between $10,000 and $50,000 are insured up to 75 per cent, and deposit amounts in excess of $50,000 are insured up to 50 per cent. The temporary plan which was in operation between January 1, 1934, and July 1, 1934, insured all deposits up to $2500. The temporary plan which came into force on July 1, 1934, insured all deposits up to $5000.

There were three principal sources of funds for the corporation: first a subscription of $150,000,000 by the United States Treasury; second a subscription of approximately $139,000,000 by the Federal reserve banks (half of the Federal reserve banks' surplus as of January 1, 1933); third a subscription of one half of 1 per cent of the total insurable deposits of all participating banks. In the permanent plan new assessments may be made upon participating banks whenever the net debit balance of the fund reaches a sum equal to a quarter of the total insurable deposits. Thus it will be seen that under the permanent plan participating banks are liable without limit. This is the provision to which the banks have most vigorously objected.

All Federal reserve member banks are required to participate, and

qualified nonmember banks may join until July 1, 1937 (originally July 1, 1936, but this date too was moved up one year by the act of June 16, 1934). After July 1, 1937, all participating members must be members of the Federal Reserve System. This provision was a compromise between those who favored forcing all banks in the United States to become members of the Federal Reserve System and those who still wished to retain our present system of voluntary membership for state banks. On June 30, 1933, only 709 state banks were members of the Federal Reserve System, but within a year this figure had increased to 958, a gain of approximately 35 per cent.

The management of the corporation was vested in a board of three directors, with the Comptroller of the Currency as an ex-officio member, and two other members appointed by the President, with the consent of the Senate, for a term of six years. In the event of the failure of a participating national bank the corporation immediately organizes a new national bank, and makes available an amount equal to the insured deposit liabilities of the closed institution. The corporation then liquidates the closed institution, and finally debits the insurance fund with the excess, if any, of the insured deposits over the amount realized from disposing of the assets. The new bank may subsequently be liquidated or taken over by another bank, or it may even continue in business if sufficient capital is subscribed.

As of October 1, 1934, 98.4 per cent of all the deposit accounts in the banks of the United States was fully insured, but only 44.4 per cent of the total volume of deposits was insured.

3. The branch-banking powers of national banks were extended in this act. In the original National Bank Act of 1863 nothing had been said about branch banking, but it was assumed that branches were prohibited except in cases where national banks purchased or merged with banks which had branches. When, in the early 1920's, several national banks began to set up a system of city-wide branches, special legislation on this point was necessary. One of the provisions of the McFadden-Pepper Act, which was passed in 1927, was that national banks could establish branches within the cities of their head offices when such cities were located in states that allowed state banks the privilege of setting up branches. The Banking Act of 1933 further liberalized the branch-banking privileges of national banks by allowing them to establish state-wide branches in states which expressly permitted such operations to state banks. Any national bank establishing branches outside the city of its head office must have capital stock of not less than $500,000,

except that in states with a population of less than 1,000,000 and with no city exceeding 100,000 only $250,000 is needed, and in states with a population of less than 500,000 and with no city exceeding 50,000 only $100,000 capital is necessary. The approval of the Comptroller of the Currency is necessary before any branches can be opened.

4. Complete separation of investment and commercial banking was provided in the following manner:

a. All security affiliates of member banks had to be divorced by June 16, 1934.

b. Investment and security houses were forbidden to accept deposits unless they agreed to discontinue their underwriting and security business.[1]

c. Directors, officers, and employees of member banks were forbidden to serve also as directors, officers, and employees of any organization dealing in investment securities, except under a permit issued by the Federal Reserve Board.

d. Member banks were prohibited from dealing in investment securities, except such securities as they purchased for their own account. The following securities were exempt from this provision: obligations of the United States government, of a state, and of a municipality; Federal Home Loan bonds; and securities issued under the Federal Farm Loan Act.

5. Prior to the passage of the Banking Act of 1933 holding companies controlling member banks were not subject to regulation by the Federal Reserve System. The act subjects them to regulation, which includes detailed examinations; publication of individual and consolidated statements of condition; and a limitation restricting the aggregate of loans to and investments in the securities of a single affiliate of a member bank to 10 per cent of its capital and surplus.

6. The minimum capital requirements for national banks were raised. No national bank can now be organized with capital of less than $100,000,

[1] One of the most prominent investment houses in the United States, J. P. Morgan and Company, has chosen to continue its deposit-banking business and give up its security-floating business. This organization, therefore, becomes a private bank. Drexel and Company, of Philadelphia, however, which is very closely affiliated with J. P. Morgan and Company, will continue in the security business. Most of the investment houses, including Kuhn, Loeb and Company, Dillon, Read and Company, Lehman Brothers, Goldman, Sachs and Company, and Lazard Frères, will continue to operate in the security field.

except in a place of which the population does not exceed 6000, in which case the capital may not be less than $50,000. If the population of the place exceeds 50,000, then the capital of the new national bank may not be less than $200,000.

7. In addition to the provisions for the control of speculative activity, a number of provisions were included in the act for the purpose of obtaining more effective control over other investment and lending policies of member banks. Member banks were prohibited from making loans to their own officers. A regulation similar to the existing one limiting the loans to any individual borrower to 10 per cent of a bank's capital and surplus was made, which limited the total amount of investment securities of one obligor that might be purchased to 10 per cent of the issue outstanding, and to 15 per cent of the capital stock (plus 25 per cent of the surplus) of the member bank.

Member banks could not charge customers more than the rate set by state law, or more than 7 per cent in the absence of state law, or over 1 per cent above the ninety-day rediscount rate of the Federal reserve bank of the district, whichever might be the higher. Member banks were prohibited from paying interest on demand deposits, and the Federal Reserve Board was given the power to limit the rates payable on time deposits.

8. There was a miscellaneous group of provisions, among which were the following:

a. The franchise tax applying to the earnings of the Federal reserve banks was repealed, so that all earnings which were not paid out as dividends would be added to the surplus of each Federal reserve bank.

b. Mutual savings and industrial loan banks were made eligible for membership in the Federal Reserve System.

c. The open-market operations of the Federal Reserve System were brought more completely under the control of the Federal Reserve Board by changing the composition of the open-market committee so that it includes one representative from each Federal reserve bank, and by allowing the members of the Federal Reserve Board to attend the meetings of the committee if they so desired.

d. No Federal reserve bank or officer thereof might carry on negotiations with foreign banks or bankers, except under the supervision and regulation of the Federal Reserve Board.

e. The Federal Reserve Board was authorized to remove any officer or director of any member bank which it felt was engaging in unsound banking practices despite official warnings.

f. Every director of a member bank must own at least $2500 in par value of the stock of the bank of which he is a director if the bank has capital stock of more than $50,000. He may own as little as $1000 of stock if the capital of the bank is $25,000 or less.

One of the most serious defects of the banking system of the United States is its lack of uniformity. In general it may be said that we are operating under forty-nine different systems: the forty-eight state banking systems and the national banking system. A special train carrying two hundred and sixty examiners in addition to about a hundred clerical assistants from three different agencies (the national banking system, the state banking department, and the Federal Deposit Insurance Corporation) recently arrived in one of the larger cities in the United States, and the three examining bodies worked at the same time in all the banks of the town. The Banking Act of 1933 did not remedy this situation, except in so far as the participating banks in the Federal Deposit Insurance Corporation must become members of the Federal Reserve System before July 1, 1937, unless the law is amended before that time. Although branch-banking privileges were extended, our system is still predominantly one of independent units.

It is true that good banking cannot be legislated, but some types of banking legislation are better than others. During the first ten months of the operation of the Federal Deposit Insurance Corporation six of its participating banks failed. The total deposit liability of these banks at the time of closing was $1,512,000, and the total of insured deposits $673,837. More than 99 per cent of the 13,123 depositors in these six banks were insured in full.

Gold Reserve Act, January 30, 1934. During the latter part of 1933 the President initiated a gold-buying policy. A committee under the chairmanship of the Secretary of the Treasury was empowered to set the price from day to day at which the Treasury was willing to purchase gold. The first price set was very near to that of London ($31.36 an ounce, on October 25), and from that time until the latter part of January the price was steadily increased until it reached $34.45. On January 30 the Gold Reserve Act was passed, and the dollar was devalued by presidential

proclamation the following day. The chief provisions of the Gold Reserve Act were:

1. The President was empowered to lower the gold content of the dollar to between 50 per cent and 60 per cent of its old weight (the Inflation Bill had already given him the broad power to reduce it by 50 per cent).

By proclamation dated January 31, 1934, the President fixed the gold content of the dollar at $15\frac{5}{21}$ grains of gold, nine-tenths fine. In fine gold this means that the dollar contains 13.714 grains as compared with 23.22 grains in the old dollar, or a ratio of 59.06 per cent. This change made the commercial price of gold at the mints $35 an ounce; previously it was $20.67.

2. All outstanding gold coin and gold certificates were called into the Treasury, including those held by reserve banks, and none were to be issued for general circulation.

3. The reserve banks were to be paid for their gold in nonnegotiable gold certificates of large denomination.

4. As a result of the reduction in gold content the Treasury secured a "profit" of about $2,800,000,000 on its gold. Of this amount $2,000,000,000 was appropriated by the act as a stabilization fund, to control and restrain fluctuations of the dollar in the foreign-exchange market. This fund is administered by the Treasury, and may be invested in government securities of any kind when not needed for the purpose of exchange control.

5. The Secretary of the Treasury was empowered to sell gold or redeem paper money in gold, for export or other purposes, at his discretion, subject to the approval of the President. Under this provision, redemption has been made for foreign shipment in the form of bullion.

6. Provisions 1 and 4 are limited to two years by the terms of the act.

Securities Exchange Act, June 6, 1934. The principal provisions of the Securities Exchange Act are as follows [1]:

1. National, state, and local government issues do not fall under the provisions of the act.

2. No security exchange may use the mails unless it becomes a national security exchange. In order to do this it must abide by the provisions of the law, and give full information concerning its organization and operation. (This seems to be an indirect method of compelling

[1] This act is discussed in more detail on pages 620–623.

exchanges to register with the Securities Exchange Commission as national securities exchanges, but it was probably the most effective constitutional means possessed by Congress to accomplish this end.)

3. All margin requirements are to be determined by the Federal Reserve Board. Congress suggested minimum margin requirements which were only slightly above those generally in force before the passage of the act.

4. All manipulation and pooling activities are prohibited. The commission may set up rules governing short selling, stop-losses, floor trading, and the operations of "specialists."

5. All securities listed on the exchanges must be registered with the commission. In order to register with the commission a corporation must agree to furnish it with complete information, which includes the facts as to the remuneration of all officers, directors, and underwriters; information about the amount of bonus payments and other profit-sharing agreements; periodical profit-and-loss statements; and balance-sheet information. In general the commission exercises the same control over all listed issues as the Interstate Commerce Commission exercises over railroad issues.

6. To enforce the act effectively the commission has the power to suspend exchanges and likewise to suspend the trading in particular issues listed on the exchanges. After hearings, its orders are to be enforced by the Federal courts.

Silver Purchase Act, June 19, 1934. The principal provisions of the Silver Purchase Act are stated in sections 2 and 3, which are as follows:

Sec. 2. It is hereby declared to be the policy of the United States that the proportion of silver to gold in the monetary stocks of the United States should be increased, with the ultimate objective of having and maintaining one fourth of the monetary value of such stocks in silver.

Sec. 3. Whenever and so long as the proportion of silver in the stocks of gold and silver of the United States is less than one-fourth of the monetary value of such stocks, the Secretary of the Treasury is authorized and directed to purchase silver, at home or abroad, for present or future delivery with any direct obligations, coin, or currency of the United States, authorized by law, or with any funds in the Treasury not otherwise appropriated, at such rates, at such times, and upon such terms and conditions as he may deem reasonable, and most advantageous to the public interest: Provided, That no purchase of silver shall be

made hereunder at a price in excess of the monetary value thereof: And provided further, That no purchases of silver situated in the continental United States on May 1, 1934, shall be made hereunder at a price in excess of 50 cents a fine ounce.[1]

It is important to note that no time limit was set for the attainment of a monetary base consisting of three fourths gold and one fourth silver; it was said merely that it would be our "ultimate objective." Against the silver which is purchased the Secretary of the Treasury is authorized and directed to issue silver certificates and to place such certificates in circulation.

The President was empowered, whenever in his judgment such action was necessary, to "require the delivery to the United States Mints of all silver by whomever owned or possessed." This provision led to the executive order of August 9, 1934, calling for all stocks of silver to be delivered to the Treasury, for which 50 cents an ounce would be paid. This proclamation has been termed the "Nationalization of Silver Plan." In the ten months ending May 31, 1935, 283,000,000 ounces of silver were purchased. The price paid was 64½ cents an ounce until April, 1935, when it suddenly rose to over 80 cents in a speculative flurry.

To determine just how much silver should be purchased in order to make up one fourth of the monetary base, it is necessary to have a ratio between the two metals. After January 31, 1934, the mint price of gold was $35 an ounce, but silver continued to be coined at its former price of $1.29 an ounce. The ratio between the two under these terms, therefore, is approximately 27–1, which means that in terms of ounces we shall ultimately have nine times as much silver as gold, if silver is to become in value one fourth of our monetary base. This holds, of course, only so long as the monetary value of gold remains at $35 an ounce, and that of silver at $1.29 an ounce. As of the end of December, 1934, the United States held approximately $8,250,000,000 in monetary gold and approximately $720,000,000 in silver. Silver, therefore, made up about 8 per cent of our total monetary stock; it will be necessary to increase this percentage to 25 in order to carry out the provisions of the Silver Purchase Act.

[1] *Federal Reserve Bulletin*, July, 1934, pp. 436–437.

Amendment to the Federal Reserve Act Providing for Direct Loans by the Federal Reserve Banks to Industry for Industrial and Other Purposes, June 19, 1934. The first section of this act states:

In exceptional circumstances, when it appears to the satisfaction of a Federal Reserve bank that an established industrial or commercial business located in its district is unable to obtain requisite financial assistance on a reasonable basis from the usual sources, the Federal Reserve bank, pursuant to authority granted by the Federal Reserve Board, may make loans to, or purchase obligations of, such business, or may make commitments with respect thereto, on a reasonable and sound basis, for the purpose of providing it with working capital, but no obligation shall be acquired or commitment made hereunder with a maturity exceeding five years.[1]

In addition the Reconstruction Finance Corporation Act was amended in the following manner:

For the purpose of maintaining and increasing the employment of labor, when credit at prevailing bank rates for the character of loans applied for is not otherwise available at banks, the Corporation is authorized and empowered to make loans to any industrial or commercial business, which shall include the fishing industry, established prior to January 1, 1934. Such loans shall in the opinion of the board of directors of the Corporation be adequately secured, may be made directly, or in cooperation with banks or other lending institutions, or by the purchase of participations, shall have maturities not to exceed five years, shall be made only when deemed to offer reasonable assurance of continued or increased employment of labor, shall be made only when, in the opinion of the board of directors of the Corporation, the borrower is solvent, shall not exceed $300,000,000 in aggregate amount at any one time outstanding, and shall be subject to such terms, conditions, and restrictions as the board of directors of the Corporation may determine. The aggregate amount of loans to any one borrower under this section shall not exceed $500,000.

The power to make loans given herein shall terminate on January 31, 1935, or on such earlier date as the President shall by proclamation fix; but no provision of law terminating any of the functions of the Corporation shall be construed to prohibit disbursement of funds on loans

[1] *Federal Reserve Bulletin*, July, 1934, p. 430.

and commitments, or agreements to make loans, made under this section prior to January 31, 1935, or such earlier date.[1]

The volume of loans made under these two provisions was very small up to December, 1934. The Federal reserve banks had approved 942 applications, totaling $47,645,000, while the Reconstruction Finance Corporation had authorized 423 direct loans to industry, aggregating $23,666,100. As a number of these loans were made under conditions which would be considered unsound for commercial-bank loans, the small volume of loans made directly to industry by these agencies would throw some light on the question of whether or not the commercial banks were providing for the "legitimate" needs of business during this period.

National Housing Act, June 27, 1934. The National Housing Act created the Federal Housing Administration. It did not create new lending agencies, but rather provided for a plan to make it safe for existing financial institutions to extend the needed credit to homeowners by partially insuring the loans made by these institutions for alterations, repairs, and improvements of real property.

The financial institutions eligible for the protection provided in the act include building and loan associations, commercial banks, savings banks, industrial loan companies, trust companies, finance companies, mortgage companies, and other financial institutions which are acceptable to the administrator of the Federal Housing Administration. A loan made by an approved institution is insured against loss up to 20 per cent of its aggregate face amount, and the administrator is authorized to incur a total liability for modernization purposes of not more than $200,000,000. This means that the loans made will total $1,000,000,000.

The only security which the Federal Housing Administration requires before it is willing to insure up to 20 per cent of a loan is the personal obligation of the borrower; no cosigners or endorsers are necessary, except husband or wife when the owner is

[1] *Federal Reserve Bulletin*, July, 1934, p. 432.

married. The signer of the note must have a regular income equal to five times the annual payment on the note. If the financial institution directly granting the loan is located in a state which prohibits the granting of unsecured loans, then the lending institution may require the legally necessary collateral.

In order to be eligible the loans may not run for more than five years. The financial institution making a loan is authorized to determine the proper period for the loan, but is advised that it should be liquidated within the life of the improvement.

The charge that may be made by a lending institution is an amount not to exceed the equivalent of a $5 discount per $100 original face amount of a one-year note payable in monthly installments. Since repayments are made on a monthly basis, the total cost to the borrower on a yearly basis may not exceed slightly less than 10 per cent. The monthly payments must be of equal amounts, and a rebate will be granted for prepayments.

The act likewise provides for a mutual mortgage-insurance fund, which started with $10,000,000 of government money, but is maintained by premiums collected from each homeowner borrower. Under certain restrictions, such as that the mortage shall be limited to not more than 80 per cent of the appraised value of the property, and that the mortgagor shall have no other unpaid obligations contracted in relation to the mortgaged property, the National Loan Association will insure the mortgage. The insurance fund is kept up by levies upon the owners of the mortgaged properties.

The Banking Act of 1935. The Banking Act of 1935 has been described as the most significant banking legislation since the passage of the Federal Reserve Act in 1913. There are those who hold that the Banking Act of 1933 was almost as important, and therefore they find it difficult to understand why a second banking act followed it so closely. Before 1913 there had been no major changes in our banking system since 1864. The Banking Act of 1933, although passed at the same time as numerous emergency legislative acts, cannot, as previously pointed out, be considered purely as an emergency measure. Considerably less time

elapsed between the time when the bill which became the Banking Act of 1935 was first made public and its final passage than was the case for the Banking Act of 1933. The public, although not totally unaware of the existence of such a bill, received its first official notice of the Banking Act of 1935 in January, 1935, and the bill was passed in August of the same year. Thus in the relatively short period of six months one of our most important banking legislative acts was initiated, debated, drastically amended, and passed.

The desirability of this act can be judged only in terms of the criteria of an effective central banking system.[1] It should be recalled that the Federal Reserve System was adopted as a substitute for the Aldrich Plan, which provided for a National Reserve Association. As has been previously pointed out (p. 525), the split in the Republican party in the election of 1912 was no doubt responsible for this country's adoption of the Federal Reserve System rather than a National Reserve Association. One of the principal differences between the National Reserve Association and the Federal Reserve System was that the control of the National Reserve Association was concentrated in the hands of one organization made up principally of the representatives of the commercial banking interests, whereas the Federal Reserve System was "regionally" organized with a certain degree of individual reserve-bank control but generally co-ordinated and supervised by a central governing board. As will be noticed from the provisions of the Banking Act of 1935, perhaps the outstanding change in the original act was to center more control in the central board and narrow the scope of the management of the individual reserve banks.

The provisions enlarging the powers of the central governing body of the Federal Reserve System were in keeping with similar changes in other fields of activity. In other words, banking was not singled out as a field which was particularly in need of more centralized authority, for there were numerous laws and adminis-

[1] Although there are numerous provisions within the act which deal with commercial banking practices alone, the major portion of the act is devoted to changes in central banking organization and control.

trative orders during the period from 1933 to 1935 which increased the government's authority in many of the fields in which it was already exercising some control or supervision. It was, therefore, not particularly startling when the new governor of the Federal Reserve Board introduced a banking act which would give the Federal Reserve Board more authority over central banking operations and policies in this country.

Late in 1934 President Roosevelt appointed Marriner S. Eccles as governor of the Federal Reserve Board. For about a year previous to his appointment as governor Mr. Eccles had been a special adviser in the Treasury Department, a fact which may be helpful in understanding some of his attitudes toward central banking control. Early in 1935 he submitted to Congress a banking bill which later became the Banking Act of 1935. As is true of almost all proposed legislation, this bill was referred to the appropriate committees of the House of Representatives and Senate. The Senate Banking and Finance Committee appointed a subcommittee under the chairmanship of Senator Carter Glass to hold hearings and make recommendations. The subcommittee recommended numerous and important changes which were later adopted by the entire committee. Senator Carter Glass is personally given most of the credit for whatever changes were made, because of the keen interest he has always taken in banking legislation and the influence he had exerted in formulating the Federal Reserve Act. It is very interesting to note the changes which were made between the time that Governor Eccles proposed the bill and its final adoption. For convenience, therefore, the discussion of the various provisions of the act will be divided into three parts: (1) the Eccles Bill — the bill submitted by Governor Eccles early in 1935; (2) the Senate committee changes — the Eccles Bill changed and amended by the Senate Banking and Finance Committee; and (3) the bill as it was finally passed — the Banking Act of 1935.

The act is divided into three parts, known as Titles I, II, and III. Title I deals exclusively with the amendments to the Federal Deposit Insurance Law which had first appeared in the Banking Act of 1933. Title II, about which more has been said and which

is regarded by some as being the most important section of the act, covers a variety of provisions increasing the powers of the Federal Reserve Board. It was this section which, as will be noted later, caused the greatest controversy during the formative stages of the act. Title III includes miscellaneous technical amendments to various existing banking laws, most of which are of minor importance and against which there has been very little criticism. The three titles will be discussed in order.

TITLE I

FEDERAL DEPOSIT INSURANCE

Eccles Bill. 1. In order to remain an insured bank under the Federal Deposit Insurance Corporation a bank had to become a member of the Federal Reserve System by July 1, 1937.

2. Deposits were insured only up to $5000. The permanent provision of the previous law (Banking Act of 1933) insured

100 per cent of the net amount not exceeding $10,000.
75 per cent of the amount by which such net amount exceeded $10,000 but did not exceed $50,000.
50 per cent of the amount by which such net amount exceeded $50,000.

3. Each insured bank was to be assessed at the rate of one twelfth of 1 per cent per annum upon its total deposits.

4. In addition to the capital of the Federal Deposit Insurance Corporation, provided at the time it was organized, the corporation might issue its own notes, debentures, or bonds.

Senate Committee Changes. Only those banks with deposits of $1,000,000 or more should be required to become members of the Federal Reserve System by July 1, 1937, in order to continue operating under the provisions of the Federal Deposit Insurance Corporation. The one twelfth of 1 per cent assessment for participation in the insurance fund was to continue until the fund reached $500,000,000, after which the assessments would cease and would not be resumed until the fund had been impaired 15 per cent.

Banking Act of 1935. 1. Assessment remains at one twelfth of 1 per cent of average deposit liabilities.

2. Insurance is limited to $5000 per account.

3. State nonmember banks having average deposits of $1,000,000 or

more are required to join the Federal Reserve System by July 1, 1942, in order to retain insurance benefits.

In the development of this section of the bill it will be noticed that only one major change was made, and that was to allow the smaller nonmember state banks to retain the protection of the Federal Deposit Insurance Corporation even though they did not join the Federal Reserve System. If we assume that a guaranty of bank deposits is desirable, it is regrettable that the banking institutions which might have received the greatest benefits from the supervision of the Federal Reserve System are allowed to remain as nonmembers. As pointed out in a previous chapter, the lack of uniformity of our banking regulations and supervision due to control by the forty-eight states and the Federal government is one of the principal defects of our system. Forcing all banks to become members of the Federal Reserve System if they were to retain the deposit-insurance benefits would have accomplished much in eliminating this weakness.

Now that a plan for the guaranty of bank deposits has become permanent, it may be appropriate to make a few general remarks about its desirability, although this section is principally devoted to outlining the actual provisions of the act and to giving some interpretations. The banks themselves have vigorously opposed deposit insurance, principally on the grounds that it tends to encourage "reckless" banking and to discourage the banker who conducts his bank in an efficient manner and by reason thereof never has occasion to call upon the guaranty fund to meet or help to meet his deposit obligations. This does not necessarily follow from deposit-insurance plans. It is true that a number of states have had disastrous results from state-wide deposit-guaranty laws and in most cases have had to abandon such schemes because of the insufficiency of the guaranty funds. But it does not seem likely that bankers will purposely use lax methods just because they know their depositors will be protected in case their laxity leads to disaster. It still remains true, however, that the losses have to be borne by those banks which remain solvent, and to this extent good banking is taxed. If bank failures are divided into two general groups, — first, those due to such special causes as bad

management, dishonesty, or incompetency, and secondly, those due to general conditions, such as precipitous price declines, and to local conditions beyond the control of the management of the bank, — then from a social point of view there may be some justification for compelling the stronger banks to come to the aid of those which fail for the second group of reasons.

If the principal objective of deposit insurance is remedial rather than preventive, then its desirability is open to question. In other words, if the Federal Deposit Insurance Corporation assumes its principal function to be merely the alleviation of stress in those communities where banks have failed rather than requiring its members to conduct their business in such a way that failure is less likely, then there seems to be little justification for the corporation except as an emergency measure. It is of the utmost importance that only those banking institutions which measure up to certain standards be allowed to share the benefits of deposit insurance. In this way it would become not necessarily an honor but at least a mark of distinction to be admitted to the benefits, and the Federal Deposit Insurance Corporation would be exerting a most wholesome influence upon banking practices in this country. There is some indication that since the plan has become permanent, the Federal Deposit Insurance Corporation has helped to put numerous banks "in order." Mergers and consolidations are likewise being furthered by the corporation. If, then, the corporation can secure a membership which includes most of the bank resources of the country, and induce its member banks to conduct their business in such a way that failures are less likely, it will have accomplished something which, so far in this country, we have not been able to obtain by other methods.

Title II

CHANGES IN ORGANIZATION AND OPERATION OF THE FEDERAL RESERVE SYSTEM

Eccles Bill. 1. The President was to designate one of the six appointive members of the Federal Reserve Board as governor. The bill further stated that the President might terminate any designation as governor,

and when this was done such a person should be deemed to have served the full term for which he was appointed. It was this control given to the President over the executive officers of the Federal Reserve Board which brought forth the strongest criticisms. Critics pointed to this provision as making possible complete political domination of the Federal Reserve System.

2. The President was to choose persons well qualified by education or experience or both as the six appointive members of the Federal Reserve Board. Not more than one appointive member should be selected from any one Federal reserve district, except that this limitation did not apply to the governor of the board. The salaries of the board members were increased from $12,000 to $15,000 a year. There was likewise a retirement-pension provision which provided for as much as $12,000 a year for those members reaching the age of seventy-five after having served at least twelve years on the board. Those serving for less than twelve years would receive a smaller amount.

3. The membership of the Open-Market Committee was changed to five: the governor of the Federal Reserve Board, who was to be the chairman of the committee, two other members of the Federal Reserve Board selected by the board, and two governors of Federal reserve banks. This committee was given complete control of open-market policies. In addition it was required to make recommendations to the Federal Reserve Board regarding the discount rates of the Federal reserve banks.

4. The position of Federal Reserve Agent for each Federal reserve bank was abolished, and the governor was made chairman of the board of directors of the Federal reserve bank. (The agent formerly was chairman.) The governor, who was to be the chief executive officer of the Federal reserve bank, would be appointed annually by the board of directors, subject to the approval of the Federal Reserve Board. He would not take office until approved by the Federal Reserve Board, and upon approval he was to become one of the Class C directors of the bank.

5. Any Federal reserve bank might discount any commercial, agricultural, or industrial paper and might make advances to any member bank on its promissory notes secured by *any sound assets* of such member bank.

6. The Federal Reserve Board might change the reserve requirements to be maintained against the deposits of member banks.

7. Real-estate loans were liberalized. Any national bank might make loans secured by first liens on improved real estate. For loans of three years' duration or less, the amount of the loan could not exceed 60 per

cent of the value of the real estate. If, however, amortization was required within a period not exceeding twenty years, the loan might be made on an amount not to exceed 75 per cent of the value of the real estate offered as security.

8. Each Federal reserve bank might issue Federal reserve notes which would be obligations of the United States secured by a first and paramount lien on all assets of the issuing bank.

9. The Federal Reserve Board at its discretion might waive in whole or in part the minimum capital requirements for Federal reserve membership for any insured state bank or trust company applying for membership before June, 1937.

Senate Committee Changes. 1. The present Federal Reserve Board was to be dissolved, and in its place was to be substituted a body known as the Board of Governors, composed of seven members appointed by the President. The Secretary of the Treasury and the Comptroller of the Currency were not eligible to membership on this board. At least two of the members had to be persons of tested banking experience, and not more than four members of the board could be affiliated with the same political party. Members of the board were to be appointed for a term of fourteen years. A board member who had served a full term would not be eligible for reappointment. A chairman and vice-chairman were to be appointed by the President to serve terms of four years. Members of the Board of Governors might be removed only for "cause."

2. The chief executive officer of each Federal reserve bank was to be the president, appointed for a term of five years by the board of directors, with the approval of the Board of Governors of the Federal Reserve System.

3. The Open-Market Committee was to consist of the seven members of the Board of Governors and five representatives of Federal reserve banks chosen annually by the twelve presidents of the Federal reserve banks. No regional reserve bank could be forced to participate in open-market operations as outlined by the Open-Market Committee.

4. The Board of Governors might not lower the present deposit-reserve requirements for member banks, but it might increase them by as much as 100 per cent.

5. The Federal reserve banks might not buy bonds direct from the Treasury.

6. Each Federal reserve bank was required to restate its rediscount rate every two weeks, regardless of whether a change was recommended. These rates must be approved by the Board of Governors.

7. Real-estate loans by members were more restricted than in the original form of the act.

Banking Act of 1935. (In this section the changes suggested by the Senate committee predominate.) 1. The Federal Reserve Board was dissolved, and in its place was substituted a body known as the Board of Governors, composed of seven members appointed by the President. The Secretary of the Treasury and the Comptroller of the Currency are not eligible to membership on the Board of Governors. No specific qualifications are prescribed for board members. The term of office is fourteen years, and no one serving a full term is eligible for reappointment. A chairman and vice-chairman are appointed by the President and serve for four-year terms. No more than one member may be from any one Federal reserve district, and the salary is $15,000 a year. Originally (1913) the Federal Reserve Act stated that at least two members should have banking experience. This was changed in 1923 so that a fair representation of financial, agricultural, and commercial interests and of geographical divisions of the country was to be used as the basis for the selection of board members. These qualifications, if they may be considered as such, are repeated in this act. There is no retirement-pension provision.

2. The chief executive officer of each Federal reserve bank is the president, who is appointed for a term of five years by each individual board of directors, with the approval of the Board of Governors of the Federal Reserve System.

3. The Open-Market Committee consists of the seven members of the Board of Governors and five representatives of the Federal reserve banks. (The reserve banks are grouped by two's and three's in the selection of their five representatives.) Individual reserve banks *must* participate in open-market operations according to the dictates of the Open-Market Committee.

4. Any Federal reserve bank may make advances to any member bank on its time or demand notes having maturities of not more than four months and secured *to the satisfaction* of such Federal reserve bank. These notes bear an interest rate of not less than one half of 1 per cent higher than the discount rate in effect at the time.

5. The Board of Governors may not lower the present reserve requirements of the member banks, but it may increase them by as much as 100 per cent.

6. The Federal reserve banks may not buy bonds directly from the Treasury. This provision does not mean that the Federal reserve banks

cannot aid the government in selling its bonds, for they may buy them indirectly through dealers. But if the purchases could be made directly from the Treasury, there would be more opportunity to use the reserve banks as "adjuncts to the Treasury." Supporters of this provision point out that in those countries where central banks have made direct purchases from the government, abusive practices and inflation have frequently resulted.

7. Each Federal reserve bank is *required* to *restate* its rediscount rate every two weeks, regardless of whether a change is recommended. The rate must have the approval of the Board of Governors.

8. National banks may make real-estate loans secured by first liens upon improved real estate in an amount not exceeding 50 per cent of the appraised value of the real estate offered as security, and no such loan shall be made for a period longer than five years. However, a loan may be made to the extent of 60 per cent of the appraised value of the real estate offered as security and for a term not longer than ten years, if 40 per cent or more of the principal of the loan is amortized within a period of not more than ten years.

It is interesting to note in a summary fashion the points at which the central board's (Board of Governors) power has been increased:

1. It now has control over the appointment of the chief executive officer (president) of each reserve bank.

2. It has a majority representation on the Open-Market Committee. (This probably does not represent a very great increase in previous powers.)

3. It may raise reserve requirements by as much as 100 per cent.

4. It has an explicit control over rediscount rates. (Previously the board's control in this regard was "implied.")

Title III

TECHNICAL AMENDMENTS TO BANKING LAWS

Eccles Bill. (Most of the provisions in this section of the act submitted in the original bill were passed with very little amendment. For that reason it does not seem worth while to outline them in this section and then repeat them as they were finally passed.)

Senate Committee Changes. The principal change made by the Senate Banking and Finance Committee was an addition. In the Banking Act of 1933 all security-underwriting privileges of member banks were prohibited, and no mention was made of this phase of commercial banking activity in the original draft of the Banking Act of 1935. The Senate committee, however, suggested that

> banks be permitted to underwrite single issues up to 20 per cent of the total issue or not more than $100,000 so long as this did not exceed 10 per cent of their unimpaired capital and surplus. A bank's aggregate underwriting could not exceed at any one time 200 per cent of its unimpaired capital and surplus, and the bank was allowed to serve customers, other underwriters, or correspondent banks.

It has been suggested that the security-underwriting provision was inserted in order that the Senate Banking and Finance Committee might yield on this point rather than on others which it considered more important. Senator Glass felt very strongly about the changes which his committee had made in Title II of the act and probably would have been unwilling to yield to any considerable extent on them. As it turned out, this is exactly what happened — the underwriting amendment suggested by the banking committee was deleted, and, as we have seen, very few changes were made in Title II.

As to the desirability of a limited underwriting privilege for member banks, such as the one suggested by the Senate committee, it may be said that when such privileges are correctly used it is difficult to see why banks should be deprived of this type of business. In some respects they are better suited to do an underwriting business than investment banks. During the speculative boom of the 1920's this privilege was so flagrantly abused by so many of the banks that the Banking Act of 1933 entirely prohibited security-underwriting by member banks. Congressmen, no doubt, still had in mind these practices when they eliminated even a limited underwriting privilege in the final draft of the Banking Act of 1935.

Banking Act of 1935. The following provisions are in no way inclusive, but are probably the more important ones:

1. After July 1, 1937, shareholders in national banks will not be liable for more than their original investment. The Banking Act of 1933 stated

that all new shares of national-bank stock would not carry double liability. This provision applies to shares in existence before June, 1933.

2. No officer, director, or employee of any corporation or unincorporated association, no partner or employee of any partnership, and no individual primarily engaged in the issue, flotation, underwriting, public sale, or distribution at wholesale or retail, or through syndicate participation, of stocks, bonds, or similar securities shall serve at the same time as an officer, director, or employee of any member bank, except in special cases in which the Board of Governors may allow such service by general regulations when, in the judgment of the Board of Governors, it would not unduly influence the investment policies of such member bank or the advice it gives its customers regarding investments.

3. National and state member banks are permitted to buy and sell stock solely upon the order and for the account of customers.

4. No national bank shall be authorized to commence business until it shall have a paid-in surplus equal to 20 per cent of its capital, except that the Comptroller of the Currency may waive this requirement for a state bank converting into a national bank.

5. A cumulative voting privilege is provided for the stockholders of national banks. By this is meant that each shareholder shall have the right to vote the number of shares owned by him for as many persons as there are directors to be elected, or to accumulate such shares and give one candidate as many votes as the number of directors multiplied by the number of his shares shall equal, or to distribute them on the same principle among as many candidates as he shall think fit. This provision is intended to give minority-stockholding interests a better chance to secure representation upon the board of directors.

6. No member bank shall pay any interest on a deposit account which is payable on demand, and the Board of Governors of the Federal Reserve System shall from time to time limit by regulation the rate of interest which may be paid by member banks on time and savings deposits.

7. Member banks are prohibited from granting loans or from extending credit in any manner to any of their own executive officers. There is a $2500 exemption to this rule if the loan is approved by the majority of the entire board of directors.

8. Member banks may deduct from the amount of their gross demand deposits the amounts of balances due from other banks (except Federal reserve banks and foreign banks), including cash items with Federal reserve banks and other banks in the process of collection, checks on other banks in the same place, and exchanges for clearinghouses. The effect of this

amendment is to place in a more favorable position the banks having large deposits with other banks but holding on deposit only a relatively small amount of the funds of other banks. These are the so-called "country banks" which carry large deposits in their city correspondents but have few if any deposits of other banks.

9. No director, officer, or employee of any member bank of the Federal Reserve System shall be at the same time a private banker or a director, officer, or employee of any other bank, banking association, savings bank (other than a mutual savings bank), or trust company, except in limited classes of cases in which the Board of Governors may allow such service by general regulations when in the judgment of the board such classes of institutions are not in substantial competition.

Monetary and Banking Legislation between 1914 and 1929. At the beginning of this chapter it was said that "recent legislation" was to be understood as meaning, in general, only that passed since the beginning of the world-wide depression in 1929. It seems desirable, however, for the sake of completeness, to summarize at this point the principal provisions of two other acts which carry our discussion as far back as the establishment of the Federal Reserve System in 1914. It is not accurate to say that the Pittman Act of 1918 and the McFadden-Pepper Act of 1927 were the only monetary and banking acts of this period, but they were the outstanding ones. Between 1914 and 1929 there were a number of amendments to the Federal Reserve Act, and most of these are discussed in the chapters on the Federal Reserve System. In addition there were the Agricultural Credit Acts of 1916 and 1923, which are discussed in the chapter on noncommercial banking (Chap. XXVIII). Both the Pittman Act and the McFadden-Pepper Act have been referred to in previous chapters, but their salient features will be summarized here.

Pittman Act, April 23, 1918. The Pittman Act of April 23, 1918, authorized the Secretary of the Treasury to melt and sell as bullion, at not less than a dollar an ounce, a maximum of 350,000,000 silver dollars. The silver dollars which we possessed were mostly being used as the backing for silver certificates. In order that the total circulating media would not be affected, the act provided for the issuance of Federal reserve bank notes to

take the place of the silver certificates which were being retired. These Federal reserve bank notes were to be issued by the Federal reserve banks, and were to be backed by Pittman certificates, which were 2 per cent Treasury notes.

The Pittman Act was passed primarily to accommodate the British government, since silver was needed in India. We ultimately sold, under the provisions of this act, approximately 200,000,000 fine ounces of silver at $1.015 an ounce. Two hundred and fifty-nine million silver dollars were melted, and approximately $330,000,000 of certificates were withdrawn from circulation. Some $235,000,000 of Federal reserve bank notes were issued.

If the act had stopped at this point, the United States would have been able to get rid of a needless element in our currency. The act further provided, however, that every silver dollar which was melted should be replaced later. The purchase price was to be $1 an ounce, and purchases were to be made only from American mines. Between 1921 and 1923 the Treasury replaced all the silver which we had sold. During the time the government was purchasing silver, the world price averaged about 70 cents.

McFadden-Pepper Act, February 25, 1927. Prior to the passage of the McFadden-Pepper Act there was no provision in the national banking law for the establishment of branches by national banks. This act very definitely established the powers possessed by the national banks in this regard. There were other provisions of the McFadden-Pepper Act which are no doubt as important as the branch-banking provision, or even more so, but it was the branch-banking problem which prompted the act. The provisions may be summarized as follows:

1. National banks were allowed to establish branches in those states which allowed their own banks the branch privilege. Branches, however, were forbidden in cities other than those where head offices were located; and it was further provided that the number of branches was to be controlled by the size of the city, thus:

In cities of less than 25,000 . . .	No branches
In cities up to 50,000	1 branch
In cities up to 100,000	2 branches
In cities of more than 100,000 . .	Comptroller of the Currency's discretion

All branches which were in existence before the passage of the act were approved.

No bank could establish a branch if its capital stock amounted to less than $100,000. If the state has more than 1,000,000 inhabitants or a city with a population of 100,000, then the national bank must have capital stock of at least $500,000 in order to operate branches.

2. Before 1913 national banks could not make loans on real estate, and the Federal Reserve Act authorized loans of this nature to only a very limited extent. The McFadden-Pepper Act liberalized the previous provision dealing with real-estate loans by national banks, so that loans may be made under the following conditions:

a. The property must be otherwise unencumbered, which means that the lien must be a first mortgage.

b. The property must be improved. In the case of urban property a structure must stand on the property, and in the case of farming land the property must be in condition for farming. This provision, of course, eliminates construction loans.

c. The property must be situated either within a hundred miles of the bank or within the Federal reserve district.

d. The loan cannot exceed 50 per cent of the actual value of the property.

e. Maximum maturity is fixed at five years, but the loan may be renewed for a similar period.

f. No bank may grant real-estate loans to an extent greater than 25 per cent of its unimpaired capital and surplus or one half of its savings deposits.

3. The Federal reserve banks were chartered in 1913 for twenty years, and prior to 1922 each national bank had to renew its charter every twenty years. In 1922 a law was passed which gave national banks ninety-nine-year charters. The McFadden-Pepper Act made the charters of national banks and Federal reserve banks indeterminate, or continuous, subject only to forfeiture for violation of the law or to termination by Congress.

Nonlegislative Monetary and Banking Developments. As important in many respects as the monetary and banking legislation enacted during the past few years are a number of developments in the general field of money and banking which preceded some of the legislative acts, and other developments which were entirely independent of any of the recent laws. The international

character of the depression causes one to look beyond the confines of the United States in order to secure an explanation of happenings which later took place in this country. The starting point is arbitrary, but there are some who feel that if grave financial disturbances had not taken place in Europe during the summer of 1931, that year might have marked the low point of the depression in the United States. Our discussion of non-legislative and banking developments will begin therefore with these happenings.

Failure of the Credit-Anstalt, May, 1931. In May, 1931, the Credit-Anstalt, one of the larger private banks of Austria, unable to meet its obligations, sought and obtained aid from the Austrian government and from the Austrian National Bank. This action, however, by informing the public of its condition, started a run on the bank, and in order to meet withdrawals it was forced to rediscount bills with the National Bank, whose financial condition was likewise impaired. The situation was made more critical by the fact that the Austrian banks at that time owed $115,000,000 to foreign creditors; in addition the Austrians themselves began to transfer funds to foreign banks which they believed to be more secure. Complete depletion of the reserves of the National Bank was avoided by loans from the Bank of England and the Bank of International Settlements, and by legislation controlling the purchase and sale of foreign exchange. All the banks of Austria were placed under a similar strain. In *Stillhaltung* ("standstill") agreements foreign creditors of the Credit-Anstalt and other Austrian banks acceded to a two-year moratorium of their obligations, and so complete collapse was averted.

Spread of the Crisis to Germany in the Summer of 1931. This situation soon spread to Germany. Because of the advance of the Hitler party in the elections, foreign creditors were aroused. Runs began on banks both by internal depositors, and by external creditors who held short-term credits which had to be met in gold or foreign exchange. It was soon discovered that foreigners held more short-term credits in Germany than could possibly be paid in gold. On July 13, 1931, the Darmstädter

und National Bank suddenly closed, and shortly thereafter a general bank holiday was declared. The government and the Reichsbank adopted measures providing for the reopening of the banks. These measures were principally an extension of credits in domestic bills, a special provision of agricultural credits, and the beginning of an Acceptance and Guaranty Bank, backed by the Reichsbank, to uphold the weaker credit institutions. To meet the excessive outflow of gold the Reichsbank in July borrowed $100,000,000 from the Bank of England, the Bank of France, the Federal Reserve Bank of New York, and the Bank of International Settlements. It also drew $50,000,000 from an American contingent credit. These aids, however, did not keep the cash reserve above the 40 per cent minimum, nor did they keep exchange from rising above par. In order to escape a devaluation of the mark in terms of foreign currency, the government in July, 1931, centralized all exchange transactions, foreign currencies, and claims to the Reichsbank. This action, accompanied by "standstill" (*Stillhaltung*) agreements, kept the mark at its approximate gold value and avoided inflation.

Abandonment of the Gold Standard by England, September 20, 1931. From Germany the scene shifted to England, where, in June, 1931, large gold withdrawals were made by foreign countries. This action threatened the gold reserves of the Bank of England, which appealed to the Bank of France and the Federal Reserve Bank of New York for aid. It received from them a joint credit of about $250,000,000. As soon as it was publicly known that the gold reserve of the Bank of England was in jeopardy, internal drains and a flight of capital from England to other countries necessitated a further credit of $400,000,000. Gold continued to be exported in such quantities that on September 20, 1931, England announced its suspension of the gold standard. Subsequently the foreign-exchange value of the pound fell below par, and as a result those foreign banks which held credits in London lost heavily. This was especially true of the Bank of France, whose embarrassment was tempered by government aid.

Various other countries, including Norway and Sweden, also abandoned the gold standard in 1931.

Gold Outflow and the Wave of Bank Failures in the United States, Fall of 1931. On June 20, 1931, President Hoover declared a moratorium on international debts and reparations in an attempt to ease the financial strain throughout the world, but more particularly the strain on Germany. This action merely added to the unfavorable occurrences of the first half of the year. Prices in the United States, and especially security and agricultural prices, again began to drop precipitously. Banks began to fail in large numbers; in October alone 522 banks were forced to close their doors. The total bank suspensions for the year were 2294, or approximately 10 per cent of all banks which were in existence at the beginning of 1931. A rapid rise in the official figures of money in circulation showed that, as a result of general distrust, currency hoarding was spreading. At this time foreign countries were holding a large volume of short-term credits in New York City. The alarm over the situation spread to them, and they began to withdraw these credits. As a result, in a six-week period, including most of October and the first part of November, we exported approximately $725,000,000 in gold, but our imports during the same period amounted to about $300,000,000, so that our net loss was only some $400,000,000. The importance of this exported amount may be shown by recalling that this was more gold than any other country in the world had at that time except France. Approximately three fifths of this amount was shipped to France, and most of the remainder to Belgium, Switzerland, and Holland.

Second Gold Run, May, 1932. Beginning in May, 1932, a second run was made on this country's gold supply. Again in approximately a six-week period this country lost over $400,000,000 of gold, but soon afterward regained most of this amount, our imports being $275,000,000 between June and September, 1932. During the remainder of 1932 a business revival occurred, and the fall in commodity prices was temporarily checked. The beginning of the next year, however, brought a fresh outbreak of bank failures and the complete demoralization of our banking system.

The Bank Holiday, March, 1933. One event which seems to have aggravated the situation was the decision on the part of

Congress to make public the loans which the Reconstruction Finance Corporation had made to banks. As soon as depositors found out that their banks were borrowing from the Reconstruction Finance Corporation, runs again increased. President Hoover had failed to be re-elected, and the "lame duck" Congress was in session. Knowing that his term of office would soon be over, but realizing that action was needed, President Hoover summoned President-elect Roosevelt to the White House for a conference, but Mr. Roosevelt apparently did not wish to introduce his proposed remedies until he had been sworn in.

The banks were closing with such rapidity that the governors of various states began to declare bank holidays. The first of these was in Nevada on October 31, 1932, when the lieutenant governor declared a twelve-day bank holiday because of the difficulties of twelve of the state's twenty-five banks; other states in the West and the Middle West soon followed. A statewide holiday was declared in Iowa on January 20, 1933, and next came the one-day holiday on February 3 in Louisiana. These bank holidays brought more fear to the public, and deposits were withdrawn in greater volume. With the declaration of Michigan's holiday on February 14, 1933, a general bank holiday became inevitable, in the best interest of depositors of the banks in other states and especially of the banks in adjoining states. On February 25 Maryland declared a bank holiday, and when President Roosevelt came into office on March 4, 1933, the majority of the banks of the United States were closed.

On March 6, 1933, President Roosevelt, on the basis of a wartime measure of October, 1917, which gave the President wide control over banks and currency and which had never been repealed, declared a general bank holiday in the United States. This action not only gave the new administration a breathing spell in which to plan for the future, but stopped the depletion of our gold stock through enormous foreign exports and the drain of gold into circulation as it was withdrawn and hoarded. Our gold supply had declined 18 per cent between February 1 and March 4. On March 9 the President issued an order continuing the holiday, but on the next day, March 10, he issued another

decree which permitted those banks which were sound to reopen. Member banks had to apply to the Secretary of the Treasury for a license, and state nonmember banks to the proper state authority. Banks began to open, so that by the end of March about two thirds of all our banks were open on an unlimited basis. By this time the currency panic was over and hoarding began to subside, until, by April 5, over $1,225,000,000 had been returned to the reserve banks. The total reserves of the reserve banks rose from $2,800,000,000 on March 4 to $3,490,000,000 on April 5.

Abandonment of the Gold Standard in the United States, April 20, 1933. Several steps were taken before the "official" abandonment of the gold standard in April, thus:

March 10, 1933. The President forbade the export of gold except under license from the Treasury. Gold "earmarked" for foreign owners continued to be exported, however.

April 5, 1933. A detailed antihoarding order was issued by the President, requiring all gold (except that owned by foreign central banks and industrial stocks) to be surrendered by May 1, 1933.

April 20, 1933. Final prohibition of the free movement of gold; this date is thus usually referred to as the "official" date when the country left the gold standard.

World Economic Conference, June, 1933. The World Economic Conference convened on June 12, 1933, and a tariff truce for the period of the conference was soon adopted. It was felt that a currency truce would likewise be desirable. At the time France was the principal gold-standard country, and it was necessary to fix the ratios at which the dollar and the pound should be stabilized in reference to the franc, if fluctuating exchange rates were to be prevented. This would require the closest co-operation of the central banks of the countries involved. The United States entered the conference in a co-operative frame of mind, apparently having approved the principles of monetary stabilization. Mr. James P. Warburg was the President's chief unofficial representative at the conference, and he had received full instructions before sailing. The conference developed to the point where it was rumored that stabilization had been effected.

The direct result of this in the United States was that our security markets were depressed, which would seem to indicate that stabilization was not looked upon with favor by certain groups within the United States. Soon thereafter President Roosevelt withdrew Mr. Warburg from the conference and sent Professor Moley, who had been given very different instructions, to take his place.[1]

The new attitude of the administration on currency stabilization was clearly set forth by President Roosevelt in the following statement of July 3, which rejected a number of very mild proposals (suggested at the conference) dealing with the ultimate return to the gold standard by each signatory country:

> The world will not long be lulled by the specious fallacy of achieving a temporary and probably an artificial stability in foreign exchange on the part of a few large countries only.
>
> The sound internal economic system of a nation is a greater factor in its well-being than the price of its currency in changing terms of the currencies of other nations.
>
> It is for this reason that reduced costs of government, adequate government income, and ability to service its government debts are so all important to ultimate stability. So, too, old fetishes of so-called international bankers are being replaced by efforts to plan national currencies with the objective of giving to those currencies a continuing purchasing power which does not greatly vary in terms of the commodities and need of modern civilization. Let me be frank in saying that the United States seeks the kind of dollar which a generation hence will have the same purchasing and debt-paying power as the dollar value we hope to attain in the near future. That objective means more to the good of other nations than a fixed ratio for a month or two in terms of the pound or franc.

After this blunt refusal of co-operation on the part of the United States, the conference soon adjourned, although some attempts were made to reach agreements in other directions.

The Gold-Purchase Plan, October, 1933. On the recommenda-

[1] Mr. Warburg describes this incident in detail in his recent book *The Money Muddle* (Alfred A. Knopf). Another excellent description of the World Economic Conference is given in Pasvolsky's *Current Monetary Issues*. Mr. Pasvolsky was in London during the conference in an unofficial capacity.

tion of Professor Warren, who advocated increasing the price of gold in order to raise the price level, the President put into operation on October 25 a gold-purchase plan. When the United States left the gold standard, the price of gold was $20.67 per ounce. The first official price was set at $31.36 per ounce, and this figure was gradually increased until it reached $34.45 on January 16, 1934, where it remained until the presidential proclamation following the passage of the Gold Reserve Act. The significance of this program is discussed on pages 107–109 and 140–142.

Nationalization of Silver, August, 1934. On August 9, 1934, the President, under authority given him in the Silver Purchase Act of June, ordered that all silver stocks in this country be delivered to the Treasury. The government would pay the holders of such stocks 50 cents an ounce. It was announced that this was the first step in carrying out the provision of the Silver Purchase Act, which called for the purchase of silver until it equaled one quarter of our total monetary base. Newly mined silver, however, continued to be purchased at 64½ cents an ounce.

Retirement of Federal Reserve Bank Notes, March, 1935. At the time of the bank holiday, March, 1933, Congress provided for the issuance of $2,000,000,000 of Federal reserve bank notes.[1] Only some $225,000,000 of these notes were ever issued. This was a natural result, for as soon as the public was given some indication as to the solvency of the banks which were allowed to reopen, it not only discontinued cash withdrawals, but returned approximately $2,000,000,000 of cash to the banks during the months of March, April, and May, 1933. After the summer of 1933 these Federal reserve bank notes were slowly reduced in volume until by March, 1935, only about $85,000,000 were still in circulation.

Retirement of National-Bank Notes, Spring and Summer, 1935. On March 10, 1935, the following announcement was issued by the Treasury Department:

> Secretary of the Treasury Morgenthau announced today (March 9) that the 2% consols of 1930 would be called by the Treasury on March 11

[1] There had been two previous issues of these notes. See pages 545–546.

for redemption on July 1, 1935, and the 2% Panama Canal loan bonds of 1916–36 and 1918–38 for redemption on August 1, 1935. About $600,000,000 of the consols and about $75,000,000 of the Panama Canal bonds are now outstanding. These bonds bear the circulation privilege.

At the time of this announcement there were over $800,000,000 of national-bank notes in circulation. Approximately $675,000,000 of these were backed by the Panama Canal loan bonds and the consols referred to in the above announcement. The remaining national-bank notes in circulation (about $150,000,000) were backed by government bonds given the circulation privilege under the Glass-Borah rider to the Home Loan Bank Act of July, 1932.[1]

On March 2, 1935, the Comptroller of the Currency, J. F. T. O'Connor, made the following announcement:

In accordance with the opinion of the Attorney-General, dated August 12, 1932, and the Act of Congress of July 22, 1932 [the Federal Home Loan Bank Act], the circulation privilege on United States bonds conferred by the Act of July 22, 1932 would expire with respect to such bonds on July 22, 1935; that National banks will, therefore, be required either to withdraw these bonds, placing with the Treasurer of the United States lawful money in lieu thereof, or place in substitution therefor with the Treasurer of the United States bonds bearing the circulation privilege, namely, 2% consols of 1930 or 2% Panamas of 1916–1936 and 1918–1938.

These two announcements provided for the retirement of all national-bank notes.

The Treasury Department stated that it would retire the $675,000,000 of bonds by using the remainder of the "gold profit" resulting from devaluation. It explained this action as follows:

At the time the gold content of the dollar was reduced, a gold increment of $2,812,000,000 was realized. Of this amount, $2,000,000,000 was placed in the Stabilization Fund. Congress has appropriated $139,000,000 for loans to industry through the Federal Reserve banks, some $13,500,000 of which has been used for that purpose. Congress has appropriated an indefinite sum to meet losses in melting gold coins

[1] Previously discussed in this chapter, p. 707.

estimated at $8,000,000, and has authorized an appropriation of over $23,000,000 for the Philippine currency fund. This leaves free gold of $642,000,000, which will now be used as a basis for debt retirement.

The only way by which the government can spend its gold is by issuing nonnegotiable gold certificates in large denominations to the Federal reserve banks. The Federal reserve banks pay the government by crediting its account, and the Treasury Department is then free to draw upon this balance for whatever purposes it desires.

With the elimination of the gold certificate in 1933 and the national-bank note and the Federal reserve bank note in 1935, the currency system of this country is very much simplified. Only Federal reserve notes, United States notes (greenbacks), and silver certificates remain as important parts of our paper currency. A few Treasury notes of 1890, some Federal reserve bank notes, and some gold certificates are still officially reported as in circulation.

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CHAPTER XXXI

FOREIGN BANKING SYSTEMS

The British Banking System

In order to obtain money to carry on a war in which the fate of the dynasty and of the Protestant religion was supposed to be involved, Parliament in 1694 passed an act creating a corporation for ten years, to be called the Governor and Company of the Bank of England. On condition that the said corporation should lend to the government at once the sum of £1,200,000 the government was to pay 8 per cent interest, plus £4000 per year for expenses — a rate much less than the Treasury had been accustomed to pay. The bank was empowered by its charter to deal in bills of exchange, to buy or sell coin and bullion, to lend money on the security of goods, wares, and merchandise, and to sell such goods if the loan was not repaid. It was not permitted to incur debt exceeding £1,200,000 or to deal in goods, wares, or merchandise except as above stated.

Successful Beginning. The subscription to the capital was completed within ten days after the books were opened, and with the money thus obtained the war was brought to a successful termination. The scheme was well conceived, for it established a credit by means of which the wealth of the community could be mobilized for the use of the army. The bank advanced its capital to the government, but recovered it presently by issuing an equal amount of its own notes, which the public accepted at par because they had confidence in the bank. The notes of the bank were to pass by endorsement, were payable at such times as the bank might determine, and were not legal tender. An amendment to the charter passed in 1697, providing for an increase of the capital stock by £1,001,171, authorized the issue of notes to the same amount, payable to bearer on demand, and

required that they should have a mark to distinguish them from the earlier issue. The first notes issued were post notes drawing interest. The next batch (those of 1697) were demand notes drawing no interest. The people accepted them at par, and the bank again lent an equivalent amount of specie to the trèasury.

Monopoly of Note Issues. In 1709 Parliament granted a quasi monopoly to the bank by a provision that no other corporation and no private partnership composed of more than six persons should exercise the right of issuing circulating notes "in that part of Great Britain called England." This was reenacted in 1742, with the added provision that the said Governor and Company of the Bank of England were thereby "declared to be and remain a corporation with the privilege of *exclusive banking as before recited.*" The terms used show that in common acceptation the word "banking" was inseparable from the issue of circulating notes; and, in fact, for more than a hundred years everybody understood that this was a prohibition against deposit banking, as well as against note issues, by stock companies.

The Restriction. The charter was renewed from time to time, on varying conditions, usually on the condition of fresh loans to the government or a reduction of the rate of interest on former ones. It passed through many vicissitudes, the most important of which was the suspension of specie payments for a period of twenty-four years, from 1797 to 1821. This suspension of cash payments is commonly called the "Bank of England Restriction," because the bank was restricted, first by the Privy Council, and afterward by Parliament, from paying specie for its obligations. The suspension was not due to commercial causes but to the large subsidies advanced by the bank, and paid by the government to Continental powers, for carrying on the war against revolutionary France.

Until 1829 bank notes of the denomination of £1 were in common use in all parts of the United Kingdom. In consequence of the panic of 1825, which was attributed to excessive issues of bank notes, an act was passed prohibiting the issue of notes in England smaller than £5. It did not apply to Scotland or Ireland. The intention and effect of this act were to saturate the

currency with a larger infusion of gold. This gave greater stability to commerce but also entailed loss resulting from the abrasion of coin, which was a source of anxiety to English statesmen and financiers.

In 1833 Parliament passed an act making the notes of the Bank of England, so long as they were redeemed in gold on demand, legal tender at all places in England and Wales except at the bank itself.

Sir Robert Peel and the Act of 1844. Not until the year 1844 was any novelty introduced into the bank's methods of business. At that time the opinion prevailed generally that commercial crises were caused by excessive issues of bank notes. The exclusive right of issue granted to the bank in 1709 and 1742 had been so far relaxed in 1826 that joint-stock banks were allowed to issue notes at a distance of sixty-five miles from London; and seventy-two such banks had been established. England had been afflicted with commercial crises in 1825, 1836, and 1839. These were ascribed to overissues of bank paper. Sir Robert Peel, the prime minister, was of the opinion that bank notes ought to be kept under rigid limitations, although book credits in the form of deposits might be safely left to the discretion of the banker. At his instance the charter of the bank (which was about to expire) was amended in the following manner: The issue department was to be wholly separate from the banking department. The sum of £14,000,000 of securities, including the government's debt to the bank, was to be transferred to the issue department, which should thereupon turn over to the banking department £14,000,000 of notes. This was the average amount of the bank's notes then outstanding. Any person should be entitled to receive notes from the issue department additional to the aforesaid sum, in exchange for gold coin or for standard gold bullion at the rate of £3 17s. 9d. per ounce. Banks and banking firms having the right to issue notes at that time might continue to issue the same average amount; but if any should cease to do so, the Bank of England might be authorized by the Privy Council to issue two thirds of the amount so withdrawn, by adding an equivalent sum to the government securities in the

issue department. Under the operation of this clause the circulation of the bank against securities was raised to £18,450,450.

The effect of the act of 1844 was to make the issue of notes automatic. Nobody had any discretion as to the amount of notes which should be in existence at any time. Setting aside the fixed sum issued against securities, the remainder of the circulation was just what it would be if it were composed of gold exclusively. The additional notes represented merely the superior convenience of paper over coin in the way of manipulation and carriage. The bank itself could not get notes on terms different from those open to the public. To get fresh supplies it must take gold out of the banking department and transfer it to the issue department, and to recover the gold it had to reverse the process.

Suspension of the Bank Act. The restriction put upon the credit circulation in England in 1844 was coincident with a great increase of deposit banking, and it produced no immediate pinch. As population and trade enlarged, more media of exchange were needed. These came partly in the form of gold and of notes issued for gold, but chiefly in the form of bank checks. As the latter were the creation of trade, they were always commensurate with the wants of trade among urban populations and in places where banking facilities existed. It was an advantage also that they were available in sums smaller than £5. So Peel's Act gave general satisfaction. Yet it has been the object of attack by some of the foremost English economists and writers on banking.[1] No other economic question, not even that of free trade, was so hotly and persistently debated. The opponents of the act contended that it prevented the bank from using its credit in the only mode available for quelling panics, that is, by the free issue of a currency that everybody would accept. They pointed to numerous crises prior to 1844 where the bank

[1] For an argument of great force against Peel's Act, see that of H. D. Macleod in the *History of Banking in All Nations*, Vol. II, pp. 173–183.

John Stuart Mill, when called as a witness before the House of Commons Committee in the crisis of 1857, said that he was against any restrictions by law of the issue of notes, except that of convertibility. He was in favor of removing the restrictions from the Bank of England and from all other banks. — Levi, *History of British Commerce*, p. 399.

averted disaster by the policy of expanding its note issues. They pointed to three crises since 1844, — those of 1847, 1857, and 1866, — in each of which the government suspended the restrictive clause of the act and authorized the bank to issue notes at its own discretion.[1] In all these instances the panic subsided as soon as it was known that notes could be had at a reasonable price. Suspension of the Bank Act, however, did not mean suspension of specie payments, but merely that the bank might issue notes at its own risk without a corresponding deposit of gold. Whatever notes the bank put out at any time it had to redeem in gold on demand.

The Arguments Pro and Con. Thus the opponents of the act contended that it worked well only in fair weather, but that in times of stress and danger it prevented the use of an adequate existing remedy, namely, the credit of the Bank of England. In such cases, they said, safety can be found only by annulling the act. The defenders of the act were compelled to admit this; but they maintained that the restriction on note issues tended to check, although it did not altogether prevent, the speculations which lead to panics and crises. They thought erroneously that notes are different from other forms of bank credit in their effect upon the prices of commodities and upon the foreign exchanges, and should therefore be restrained by law, even though they are immediately redeemable in gold. This was the main contention of Sir Robert Peel when he brought in his bill. It was repeated by Professor Jevons in 1875.[2] Mr. H. D. Macleod overthrew the argument of the former, in so far as it rested upon cited instances of experience.[3] The argument of the latter is inconclusive, to say the least. Yet, whatever the statesman of the present day might wisely and safely do if he had a *tabula rasa* on which to

[1] In 1857 the extra notes, if issued, were to be lent at not less than 8 per cent interest; in 1866 at not less than 10 per cent; and the interest was to inure to the benefit of the government, not of the bank, so that the public should not seek and the bank should not issue more notes than were actually necessary. In 1847 and in 1866 the bank did not make use of its permission to issue extra notes, but the panic ceased.

[2] *Money and the Mechanism of Exchange* (American edition), p. 314.

[3] *Theory and Practice of Banking*, Vol. II, p. 150.

write the bank's charter, he must have regard, first of all, to the fact that British commerce and British modes of thought have fashioned themselves upon the present system. It must be said also that with the passage of the act all anxiety respecting the goodness of the circulation disappeared.

The Bank Keeps the Gold Reserve of the Nation. Another peculiarity of the Bank of England is that it holds the reserves of the other London banks and practically those of the whole United Kingdom. All British banks, including those of Scotland and Ireland, keep a portion of their reserves in London. All the joint-stock and private banks of London deposit in the Bank of England all their money except the small amount needed for paying over the counter. It is more convenient for them to keep it in the vaults of the bank than in their own. Their reserves range from 10 to 15 per cent of their liabilities. The bank, in order to make a profit for its own shareholders, lends to borrowers about 60 per cent of its deposits. If a country bank keeps one half of its reserve in a London joint-stock bank and the latter lends 85 per cent of this to its customers, while the Bank of England lends 60 per cent of the remaining 15 per cent to its customers, it follows that only 6 per cent of the country bank's deposit in the city bank is available anywhere in the form of cash.

Probably the ultimate reserve of the British banks reckoned in this way is less than 6 per cent of their demand liabilities. The remaining 94 per cent is credit. It is possible to transact the business of the United Kingdom on this small percentage of cash because the credit of the Bank of England is so good. Neither the great bank nor the lesser ones are required by law to keep any fixed percentage of reserve, but keep such proportion as experience shows to be needful. The Bank of England found that its line of safety ranged between 33 and 47 per cent. The other London banks found their needs to be much less.[1] The

[1] Mr. Goschen, when holding the office of chancellor of the exchequer, made a public speech at Leeds, arguing that the London joint-stock banks ought to have much larger reserves than they habitually keep, and intimating that if they did not voluntarily adopt that policy he should bring before Parliament a measure to compel them to do so. Not one of them ever adopted this advice, nor did Mr. Goschen ever bring in any measure to compel obedience to it.

system under which this bank among many has become the keeper of the ultimate reserve of all, and under which the amount has so dwindled, is the growth of centuries. It was never invented by anybody, and if it did not now exist would be pronounced impossible. When the bank finds its metallic reserve running low, it raises the rate of discount in order to attract gold from abroad or to retain it at home. It sometimes happens that the London joint-stock banks continue lending at the lower rate after the great bank has raised its rate. In such cases the bank sends its agent into the street and borrows all the floating money that can be found, giving consols as security therefor. In common parlance "the bank borrows from the market," and thus creates a vacuum which can be filled only by money from foreign countries.

The use of the bank rate to control the gold reserve has been one of the chief functions of the Bank of England in the past. Some critics claim that it has too largely dominated banking policy, since variations in the bank rate should be based on other factors as well.

The Bank of England has branches, eleven in number, in the principal commercial cities of England. It pays to the government a fixed sum for the privilege of note issue, and it manages the public debt for an agreed compensation. It receives all the collections of revenue of the imperial government in England, pays the interest on the government's obligations, and, in general, performs the duties which in this country are carried out by the Federal Reserve System. Although it performs these functions, it is a private corporation managed by twenty-four directors chosen by the shareholders. These directors choose the governor and deputy governor. Formerly the governor held office only two years, but Mr. Montagu Norman has been repeatedly re-elected during recent years. The bank's public duties are regulated by contract. Aside from these duties the government has no more control over it than over any other London bank. The bank pays no interest on deposits, and the joint-stock banks are not required to keep any specific reserve with it or in their own vaults. The bank, then, acts as banker to the country

as a whole, and also as a clearinghouse, and it stands at the center of the British discount market.

It is important to note that none of the directors of the Bank of England may be connected with the commercial banks, which are called joint-stock banks. They may, however, come from investment banks, private banks, and other financial institutions. The reason for this practice is that since the Bank of England is a central bank, whose operations must not be conducted purely for profit, it is unwise to permit commercial bankers to dictate what it should do. Frequently it must take steps which run contrary to the immediate profit-making activities of the joint-stock banks. Comparison could well be made at this point with the organization and policies of the Federal Reserve System in this respect. It raises this highly important question: Who should have final control over the policies of a central banking system — the government, the commercial banks, or an impartial board divorced from politics? Another important question arises: Should a central bank follow the practice of the Bank of England, which also does a commercial-banking business, thereby competing to some extent with the joint-stock banks, or should it be primarily a bankers' bank, having contact with the public only through its open-market operations? These are problems with which the American people are faced at this time.

Other Banking Institutions. British commercial-banking activities, aside from those carried on by the Bank of England, are in the hands of a small number of large joint-stock banks with approximately ten thousand branches. Five of these, known as "the Big Five," practically dominate commercial banking in England. In order of size they rank as follows: Midland, Lloyd's, Barclay's, Westminster, and National Provincial. These and the National City Bank, the Guaranty Trust Company, and the Chase National Bank, all three of New York City, are the eight largest banks in the world today. In spite of its prestige and power, the Bank of England ranks considerably lower in size than even the smallest of "the Big Five" British joint-stock banks.

In addition to the joint-stock banks there are a number of other types of banking institutions in England. These are known

as discount houses, bill-brokers, merchant bankers, acceptance houses, colonial banks operating largely in British colonies, head offices of British foreign banks which operate chiefly in foreign countries, branches of foreign banks, trustee savings banks, and the postal savings banks. The Bank of England has dealings primarily with the discount houses and bill-brokers rather than with the joint-stock banks directly.

Effects of the World War. The World War brought little in the way of a drastic change in the British banking system. The provisions of the Bank Act of 1844 regarding notes were suspended again in 1914, and the "Bradburys" (currency notes) were issued through the Bank of England. When England adopted a gold-bullion standard in 1928, the Bank of England notes became redeemable only in gold bars instead of in coin. All gold is now concentrated in the Bank of England. In 1928 the "Bradburys" were amalgamated with the Bank of England notes, as has been previously described, so that today the fiduciary (bond-secured) issue is much larger than before the war, amounting to £260,000,000. Legislation clarifying the methods by which the Bank Act may be suspended has also been enacted, giving the British cabinet large powers in this respect. The tendency toward banking concentration, evident in most countries in the postwar period, was pronounced in England. One important change in the policy of the Bank of England should be mentioned. Before the war the public knew next to nothing about the policies and activities of "the Old Lady of Threadneedle Street." Only a short financial statement was published, with no explanation. In 1928, however, the type of statement was changed, especially with regard to the note-issue section, so as to afford more information. Other statements regarding the bank's activities are also issued now occasionally. The veil of secrecy has not yet, however, been completely lifted, so that the American public still knows far more about the functioning of the Federal Reserve System than the British public does about the Bank of England.

The Bank Act was again suspended in 1931, when England departed from the gold standard. The history and causes of this

spectacular incident have been related elsewhere in this volume.[1] To what extent the bank, with its large stabilization, or equalization, fund, has been deliberately controlling the pound's foreign-exchange value is a disputed point.

In recent years the Labor party in England has been advocating drastic reforms in the banking system. It desires a larger measure of government control, and some of its members demand that all banks should be nationalized. To what extent this demand will be successful it is yet too early to tell.

The Scottish Banking System

The monopoly of banking which existed in England from 1709 to 1826 did not prevail in Scotland. In the latter country there was room for a development unrestrained by legal enactment, and this freedom led to interesting results. The Bank of Scotland was chartered in 1695, with unlimited powers of note issue and with monopoly privileges for twenty-one years. When the monopoly expired in 1727, it was not renewed, but the bank continued to exist. In that year the Royal Bank was chartered. This institution, finding a scarcity of commercial paper in the market, devised a new method of using its unemployed capital, known as the system of cash credits, which forms a peculiar feature of Scottish banking.

Cash Credits. A cash credit is a permission extended by the bank to a borrower to draw money as it is wanted, not exceeding a certain sum, the borrower paying interest for the time and amount actually used. The principal difference between a cash credit and an ordinary discount is that the former is "accommodation paper," that is, not based upon any completed commercial transaction. For this reason personal security, in addition to that of the borrower, is required. The endorsers, or "cautioners," as they are termed in Scottish law, are never less than two in number and frequently three or more. The cautioner has the right to inspect the account of the borrower at any time, and to stop the credit at any point, if he wishes to terminate his liability

[1] See Chapters V and VI.

there. Cash credits are based upon knowledge of the character of the borrower and of the responsibility of the cautioners. By means of cash credits young men of enterprise and integrity are enabled to make a start in the world without waiting to accumulate capital from their own earnings. Sometimes, too, a business opportunity presents itself which a man would not undertake unless he could be sure of finding a certain amount of money before its completion. He may need it or he may not. A cash credit enables him to go forward with confidence. If he needs the money or some part of it, he pays interest for what he uses. Otherwise he pays nothing. Cash credits have played a large part in the development of agriculture in Scotland. The money advanced to farmers is not, however, lent on mortgage, but on personal security, and the accounts are not allowed to stagnate. As a corollary to the system of cash credits, the Scottish banks pay interest on the time deposits of their customers and thus stimulate among the people the habit of saving.

The Branch System. Another peculiarity of Scottish banking is its remarkable development of the branch system by which deposits are secured from every nook and corner of the country and by which capital is transferred easily and quickly to the places where the demand for it is greatest. There are eight banks in Scotland, and they have over a thousand branches. The system has been so developed and extended that banking facilities reach every town and hamlet in the land. Whatever assistance banks can give to industry is available to the poor and to the rich on equal terms. In no other country has the principle of equality in bank favors been carried farther. In no other have greater pains been taken to bring banking facilities to the poor man's door.

Note Issues. Until 1845 there was no legal limitation upon the note issues of Scottish banks. When Peel's Act was passed in England, as described above, the principles embodied in it were applied to Scotland in a modified form. It was enacted that each bank might have an issue of notes equal to the amount of notes and coin then issued and held by it. For any additional notes it was to hold an equal additional amount of coin, but it

was not required that this coin should be held specially for the redemption of the notes; nor was there any provision for ascertaining whether the law was complied with in this particular. Since 1845 no new bank has been established in Scotland. The Bank of England's monopoly of note issue does not extend to Scotland, all eight banks issuing notes. Four of the Scottish banks are owned or controlled by British joint-stock banks.

Notes are issued in denominations of one pound and upward. They are exchanged daily at the Edinburgh clearinghouse, and settlements are made between banks by drafts on London. The notes remain in circulation on the average eighteen days after each issue, the whole circulation being redeemed twenty times each year. No deposited security for bank notes has ever been required in Scotland, but noteholders have a prior lien on the assets. Moreover, the liability of shareholders for note issues is unlimited. For these reasons the note issues of insolvent banks in Scotland are always accepted at par by the other banks and are never depreciated. There have been only three bank failures of any importance in Scotland: those of the Ayr Bank in 1772, the Western Bank in 1857, and the City of Glasgow Bank in 1878. These might perhaps have been prevented by proper public examinations.

Although deposits are received and loans are made at each branch, the branches pay out only the notes of the parent bank, which are redeemable at the head office. So it is necessary to have real money only in one place, instead of in perhaps one hundred different places. Thus the maximum of business is done with the minimum of gold, which is the *raison d'être* of banking. Credit has been systematized in Scotland to the last degree, and has been found to answer all purposes.

The Scottish banking system is closely affiliated with the London money market, since all the large Scottish banks have offices in London. The Scottish system must now be regarded as a part of the British system as a whole. Willis and Beckhart, in their noteworthy volume *Foreign Banking Systems*, have summarized their views on the Scottish system as follows[1]:

[1] *Foreign Banking Systems*, p. 1178. Henry Holt and Company.

The Scottish banks, besides realizing the advantages of note issue, have developed the check system on the same lines as have been followed in England. They have thus availed themselves very fully of the possibilities of banking as an aid to industry and commerce, and it is because of this completeness of their system that it has been called the classic banking system of the world. Judged by the success with which it has mobilized and used all the available capital for the furtherance of economic development, and by the comparative freedom from financial crises which Scotland has enjoyed, there would appear to be good grounds for this description, and certainly the Scottish system is the one which has been most widely copied in other countries. This, however, does not necessarily mean that the Scottish system should have been followed in England, or that the English system has not proved well adapted to the country's particular creeds and circumstances.

The Bank of France

The Bank of France was founded, with a capital of 30,000,000 francs, in the year 1800, at the instance of Napoleon Bonaparte, then first consul. It was an ordinary bank of discount, deposit, and note issue, like the first and the second Bank of the United States, which character it still retains; but the government has never been a shareholder in it. It was placed under the management of fifteen regents and three inspectors, called "censors," chosen by the shareholders. In 1803 the exclusive right of note issue in the city of Paris was conferred upon it. In 1806 a law was passed providing that the chief of the state should appoint from among the shareholders a governor and two deputy governors of the bank. Under the present law the governor must be the owner of one hundred shares of 1000 francs each, and each deputy governor must hold fifty shares. The governor has general direction of the affairs of the bank, presides at all meetings of the regents, and may veto any of their acts. No paper can be discounted that he disapproves of. He also appoints all the employees. This feature of the bank's organization has been retained under all changes of the government of France. The bank performs the same duties in the management of the public debt that the Bank of England performs in England.

The governor and two deputy governors are now appointed by the President upon the recommendation of the Finance Minister. The general assembly, which elects the regents (directors), is composed of the two hundred largest stockholders, each of whom has only one vote. Three of the regents must be chosen from officials of the Treasury, five from manufacturers or merchants who are stockholders, and one from agriculturists.

Note Issues. In 1848 the exclusive right of note issue in the whole of France was conferred upon the bank, but it was required to buy the other note-issuing banks, which it did by increasing its own capital stock to 91,250,000 francs. The monopoly of note issue was bestowed upon the bank in order to give greater stability to the paper currency, and it had that effect. The goodness of the notes of the Bank of France is never questioned, and its monopoly is not complained of. In consideration of the bank's services to the State, the government exacts no special compensation for the right of note issue, but requires it to pay the same taxes as other banks are liable to and also exacts a small stamp duty on its notes. The amount of notes issuable is fixed by law from time to time. The legislative body usually anticipates the demands of commerce by extending the limit before the maximum is reached. The restriction upon its issues is, therefore, more apparent than real. Before the World War the Bank of France was perhaps the most notable example and illustration of the "banking principle" of note issues that the world had ever seen.

Charging a Premium on Gold. The amount of the bank's uncovered notes is relatively small. Before the World War about one fourth of the specie consisted of silver five-franc pieces, which were available for the internal traffic of the country but not for foreign trade, since their metallic was much less than their nominal value. As they were legal tender, the bank had to receive them as the equivalent of gold, but it might also pay them out at par for all claims against itself. Accordingly, when depositors wanted gold for exportation, the bank was enabled to charge a premium for it, the alternative being payment in silver. This premium was a source of profit to the bank, but it had the

effect of raising the gold-export point in the foreign-exchange market and keeping gold at home. Some authorities have criticized this policy vigorously, claiming that it was equivalent to a temporary departure from the gold standard, since one of the tests of such departure has usually been a premium on gold. The limit to the possible premium was the cost of collecting gold coins, of which there was always a large amount in circulation, and which brokers were ready to supply if they were paid for their trouble. Usually the bank charged no premium, but at times it charged a fraction less than the cost of obtaining gold from brokers. If it charged more, the public would sell its gold to brokers and deposit only silver at the bank.

Sometimes it was said that the Bank of France or the Imperial Bank of Germany was buying gold with its notes and allowing the importer of the metal interest during the time of transit from the United States. This could be done without loss whenever there was a fresh demand for its notes, provided the demand kept the notes in circulation during the time the gold was in transit. Of the probable duration and extent of this demand the bank was well able to judge through the knowledge, which it derives from its branches, of the internal trade of the country.

Suspension of Specie Payments. In the revolution of 1848 the bank suspended specie payments, and its notes were made legal tender, but it was prepared to resume at the end of three months. The government, however, prevented it from doing so until August, 1850, at which time resumption took place and the legal-tender act was repealed. The bank suspended again in 1870, at the beginning of the Franco-Prussian War, and its notes were again made legal tender. The bank at that time held specie nearly equal in amount to its outstanding notes, and equal to about 75 per cent of all its demand liabilities; and its officers were prepared to meet a run, besides making the usual advances to the mercantile community and the unusual ones which, it was foreseen, would be required by the government. Rumors had, however, gained credence that specie was flowing out of the country in large amounts to Prussia, and so public opinion demanded that the bank should stop payments and that its

notes should be made legal tender. On August 12, 1870, a law was passed to that effect. The same act limited the note issues to 1,800,000,000 francs. Two days later the limit was raised to 2,400,000,000 francs, and by subsequent steps to 3,200,000,000 francs in July, 1872. The bank advanced to the government during the war with Germany and the later conflict with the commune 761,000,000 francs, and continued to make advances while the new republic was establishing itself, until they reached the maximum sum of 1,530,000,000 francs. About one half of the sum thus advanced was specie. The premium on specie at any time was, however, slight. Once it was as high as 4 per cent, but only for a short time. After the suppression of the commune it fell to 1 per cent.

While Paris was besieged, the parent bank could do nothing to assist the government, but the branches were able to do so. The Morgan loan of October, 1870, of 250,000,000 francs was guaranteed by the Bank of France. Specie payments were resumed on January 1, 1878, but the legal-tender quality of the notes of the bank was not repealed. It was retained at the instance of the business community outside of Paris, as a matter of convenience in the handling and transfer of money.

Branches and Discounts. The Bank of France is required by law to have at least one branch in each department of France. It has also a large number of subsidiary offices in places too small to support a branch with the usual complement of officers and employees. The total of such branches and offices is now over six hundred. The rate of discount is uniform at the parent bank and at all branches and offices. During recent years it has been usually 2½ to 4 per cent, and is less fluctuating than in any other country. No paper is rejected on account of its smallness, but this paper must not run for more than ninety days and must be three-name paper. Two-name paper is acceptable only if backed by collateral. The Bank of France, like the Bank of England, is, therefore, not only a central but a commercial bank as well, engaging in competition with other banks.

Commercial-Banking Activities. Although the Bank of France has a monopoly of note issue, it has numerous competitors in

the field of commercial banking, the largest being the Crédit Lyonnais. Three other large commercial banks with many branches are the Société Générale, the Comptoir d'Escompte, and the Crédit Industriel et Commercial. The Bank of France, although a bankers' bank as well, engages more widely in general commercial banking than does the Bank of England. As has been seen, it is more subject to political control; in fact, the bank has been sometimes accused of giving way to political considerations. Another difference is that the Bank of France has customarily kept a much larger specie reserve and changes its rediscount rate much less frequently than does the Bank of England. Like the Bank of England it pays no interest on deposits.

The period of postwar inflation in France and the part played by the bank in this episode have been discussed elsewhere.[1] When France adopted the gold-bullion standard in 1928, similar to that selected by England in 1925, she devalued the franc by nearly four fifths. Contrary to the practice of most central banks, the Bank of France cannot engage in open-market operations. The Bank of France note no longer can be used as an example of a pure-asset currency. Since 1928 the bank has been required to hold a gold reserve of 35 per cent behind the notes. During the war and the years following, the maximum limit on note issues was gradually raised. Today it stands at approximately 60,000,000,000 francs, a tremendous increase over prewar days.

The German Banking System

The Reichsbank, or Imperial Bank of Germany, was grafted upon the stem of the Bank of Prussia in the year 1875. Before that event there had been five different monetary systems in the Germanic confederation, with a heterogeneous coinage, a variety of legal-tender notes issued by the several governments, and numerous banks whose circulating notes were generally at a discount except at their place of issue. The establishment of a central bank was one of the measures adopted to bring order out of this financial chaos, and it was successful even beyond

[1] See Chapter VIII; also Chapters V and VI.

the expectations of its promoters. The Bank of Prussia was originally owned by the government, which had contributed its capital of 2,000,000 talers, but it had grown to 20,000,000 talers by the admission of private stockholders. The government, however, continued to control it. The German Empire bought the Prussian government's interest, raised the capital to 120,000,000 marks, and disposed of the whole by private subscription — retaining, however, absolute control over it by means of an imperial board of directors, subject to the chancellor of the empire. By the Bank Act of 1875 the president and the members of the board of directors were appointed by the Kaiser for life, on the recommendation of the federal council. The officers of the bank, although paid by it, were considered government officials, and they were not allowed to hold shares in the bank. The shareholders chose from their own number a central committee, who acted in an advisory and supervisory capacity, but received no salary. The central committee elected three members from its own number to sit with the imperial board of directors in an advisory capacity, and they were authorized and required to inspect the books and accounts of the bank "in the presence of a bank director" and to make reports thereupon to the central committee.

Note Issues. At the time when the Bank Act of 1875 was passed there were thirty-two independent banks in the empire which had the right of note issue. The general provisions of the act applied to them as well as to the Reichsbank. They were allowed to issue in the aggregate 135,000,000 marks and the Reichsbank 250,000,000 marks of uncovered notes. It was provided also that, if any of the independent banks should for any reason cease to issue notes, their rights of issue should pass to the Reichsbank. All but seven of them either abjured the right of issue or lost it by expiration of their charters on or before January 1, 1894. The uncovered issues of the Reichsbank were later raised to 550,000,000 marks, which was called the "contingent circulation."

Some provisions of this prewar German system were of great importance, and should be compared with the English system,

as established by the Bank Act of 1844. The German law, like the English, required that, for all note issues above the foregoing limits, the banks must have an equal amount of cash in their reserves, but it did not require them to hold this cash as a special redemption fund for the notes. Nor was the regulation an inflexible one, like that of the English act. Any bank might exceed the limitation of the cash reserve by paying to the imperial treasury a tax of 5 per cent on the surplus issue, provided that the Reichsbank maintained at all times a reserve equal to one third of its notes in circulation — the other two thirds to be covered by bills or checks running not more than three months and having at least two endorsements of undoubted responsibility. The tax was originally imposed for the purpose of restricting the note issues, but experience led to the abandonment of that motive, as was shown by the fact that frequently the rate of interest charged to the borrowers was less than the tax. Each note-issuing bank was required to publish, four times each month, a report of its assets and liabilities, showing particularly the state of its note circulation and of its reserve fund. If the note issues were in excess of the limitations above described, the tax was imposed immediately, and was repeated each week as long as the excess continued. Evidently this system of note issue was modeled upon the English one, but modified by English experience in the crises of 1847, 1857, and 1866, when it was found necessary to "suspend the Bank Act." To avoid the necessity of breaking the law on such occasions, the German act was made flexible, and was found to avert trouble in times of severe stringency. It must, therefore, be considered preferable to the English act.

Imperial Bank notes were legal tender. At first circulating notes could not be issued smaller than 100 marks ($23.80), but notes of 50 and 20 marks were later authorized. The Reichsbank was obliged to give its notes in exchange for gold bullion, and to redeem them in gold coin. Banks might count the notes of other specie-paying banks in Germany and notes of the Imperial Treasury as a part of their cash reserve. The Reichsbank had hundreds of branches, divided into classes according to the importance

of the places where they were situated and the kind of business transacted by them. The rate of interest was uniform at the head office and all branches. The Reichsbank usually redeemed its notes at its branches, as well as at its head office in Berlin. The independent banks were required to redeem their notes at an agency either in Berlin or in Frankfurt, as well as at their own counters. All note-issuing banks were required to receive, in payments to themselves, the notes of other banks, and had at once to present them (except those of the Reichsbank) for redemption, or use them in payments to the issuing bank, or in other payments in the town where it was situated.

Dividends. The annual profits of the Reichsbank were apportioned in the following manner: (1) 3½ per cent on the capital stock went to the shareholders; (2) 10 per cent of the excess went to the surplus fund; (3) the remaining surplus was divided between the shareholders and the Imperial Treasury in the ratio of one fourth to the former and three fourths to the latter. If the net profits fell short of 3½ per cent on the capital stock, the residue was to be taken from the surplus fund. Dividends not called for within four years after maturity were to be canceled in favor of the bank.

The Imperial Bank was required to take charge of the business of the Imperial Treasury without compensation.

German Banking since 1914. Shortly after the beginning of the World War, Germany suspended the gold standard and appealed to all Germans to turn in their gold to the Reichsbank. The discount of treasury bills (government obligations) for the government was an important contribution of the Reichsbank toward the financing of the war. At the end of the war the Reichsbank note issue had increased to 19,000,000,000 marks, backed largely by treasury bills. It was the continuance of this practice which was largely responsible for the bad inflation of 1923.

In 1919 the newly established German Republic took over the control of the Reichsbank without changing its organization. Three years later control was transferred from the chancellor to the directors, thereby removing, temporarily, governmental dominance over its management. The monetary and financial vicissi-

tudes of Germany during the inflation of 1922 and 1923 have been described in Chapter VIII. Had the Reichsbank not adopted a passive attitude during those years, it is possible that the inflation would have been much less disastrous. The officers of the bank seemed to have little understanding of the causes of the inflation.

The notes of the Reichsbank became almost worthless and disappeared from circulation in November, 1923. Their place was taken temporarily by the notes of an emergency institution, the Rentenbank, which were backed largely by real-estate security. The Dawes Plan for reparation payments went into effect late in 1924, and the life of the present Reichsbank (which replaced the Rentenbank) dates from August 30 of that year. Germany returned to a form of the gold standard in 1924.

The New Reichsbank. One striking feature of the organization of the new Reichsbank was that until recently the government exercised less control than in prewar days. Under the act of 1924, while the government had to confirm the appointment of the president selected by the directors, it lost this power of confirmation if it rejected three successive presidential nominees. The general assembly of the shareholders selected a central committee of twenty-one members of different professions to exercise general supervision over the bank. Actual management was centered in a general council of fourteen. Under the Dawes Plan, because of the close relationship between the Reichsbank and the payment of reparations, the original members of the council were named by the Dawes Commission. Seven of them were required to be foreigners representing the Allied governments. The Young Plan of 1929 provided for the withdrawal of foreign supervision over the Reichsbank.

The head office of the Reichsbank is in Berlin. There are nearly a score of main offices in the leading German cities, with over four hundred branches in all portions of the country. The main business of the bank consists of the following activities:

1. Buying and selling gold and silver bullion.

2. Discounting bills of not more than three months' maturity, provided they are endorsed by *three* responsible persons. The third endorsement may be dispensed with if adequate collateral is furnished. The

two-name paper must not exceed one third of the total amount of discounted bills held by the bank.

3. Buying and selling government obligations of not more than three months' maturity. One person in addition to the government must be liable for these obligations. The maximum amount which may be held at any one time is limited to 400,000,000 marks.

4. Granting loans of not more than three months' maturity on the security of shares of German railways, mortgage bonds of German agricultural and land-credit institutions (up to three fourths of their market value), obligations of the government or a German state and obligations whose interest payments are guaranteed by the government or a German state (up to three fourths of their market value), obligations of non-German states, obligations of state-guaranteed foreign railways (up to 50 per cent of their market value), and the pledge of warehoused commodities.

5. Buying and selling certain foreign securities.

6. Buying and selling various types of securities for private persons.

7. Collecting and transferring funds.

8. Receiving deposits and issuing its own notes.

The Reichsbank was granted the right of note issue for fifty years. It does not, however, have a monopoly of note issue, since four other note-issuing banks remain, one each in Baden, Bavaria, Saxony, and Württemberg. The Reichsbank notes must be covered by a reserve of 40 per cent in gold or foreign exchange. Three fourths of this amount was required to be held in gold. The bank was required to redeem its notes on demand either in German gold coins, gold bars, or in foreign bills of exchange. The reserve and redemption requirements are now (1935) in abeyance, since there is practically no gold left in the vaults of the Reichsbank. The mark is held at its foreign-exchange gold parity only through drastic governmental control over the buying and selling of bills of exchange. As a result of an effort to induce tourist and other expenditures by foreigners in Germany it has been possible during the last three years to purchase marks in other countries at less than the figure quoted in the exchange markets. Because of this situation Germany is probably really off the gold standard.

The Reichsbank is an example of a central bank which, unlike

the Federal reserve banks, does an extensive business with private business enterprises. Unlike some other European central banks it does not control an important interest in a number of large industrial enterprises. It is also an example of a central bank whose profits above a certain amount go largely to the government. The shareholders are entitled to a yearly dividend of 8 per cent. After this is paid, the government receives one half of the first 50,000,000-mark surplus, three fourths of the next 50,000,000-mark surplus, and nine tenths of the remainder.

Other German Banking Institutions. The German Gold Discount Bank was established in March, 1924, to serve as a central bank for foreign transactions when the activities of the Rentenbank were confined largely to domestic transactions. Since 1925 the Gold Discount Bank has been a part of the Reichsbank. The present Rentenbank-Kredit-Anstalt is a partial successor to the Rentenbank, formed for the purpose of liquidating the credits given to agriculture by the Rentenbank. It also grants new credits to agriculture, under government supervision. Its board of directors consists of the representatives of important agricultural organizations and co-operatives. It may be regarded as a central bank for agriculture.

There are also state banks which operate under the supervision of the various German states and act as fiscal agents for them. All their profits go to the state treasuries. They have only limited dealings in personal credit; they do, however, extend credits on land mortgages and to certain corporations and co-operatives. Their activities are confined within the boundaries of the state in which they are located. The Prussian State Bank and the Prussian Central Co-operative Bank are examples of this type of institution.

The Landschaften have a long history. They are credit unions which have been organized by landowners for the purpose of securing long-time loans secured by land mortgages. They may secure funds for lending by issuing bonds upon the security of the mortgages taken in as security for loans. This is the same method as that used by the Federal Land Banks in the United States.

There are also various types of city-mortgage and private-

mortgage credit institutions, as well as savings banks. It is not necessary to go into detail concerning them.

Willis and Beckhart state in their monumental work, *Foreign Banking Systems*,[1] that "Germany to a much greater extent than England, for example, dispenses with banks and relies upon the typical German coöperative organizations, savings institutions, etc. Without doubt the German Grossbanken, in respect to the variety of their activities and the rapidity of their development since the middle of the preceding century, are among the most astonishing phenomena of German economic life." These banks are called joint-stock banks to distinguish them from the Reichsbank and other institutions. Their rise has taken place with the industrialization of Germany. The most important of them were until recently the Deutsche Bank, the Dresdner Bank, the Disconto-Gesellschaft, and the Darmstaedter und National Bank. They receive deposits and engage primarily in commercial-banking activities but in addition take an active part in the reorganization of and promotion of industrial enterprises. Commissions secured from dealings in securities constitute an important portion of their annual income. They make practically no loans on urban or agricultural real estate. The Darmstaedter und National Bank was amalgamated with the Dresdner Bank in 1931. The Deutsche Bank and the Disconto-Gesellschaft have also been merged.

The *Giro* system, a most efficient system for the transfer of funds, must be mentioned. While the use of the bank check is comparatively unknown in most of Germany, it is possible to make a payment anywhere in Germany by requesting a bank to move funds from the account of one person to the account of another. Payment may also be made to a bank or its branch in cash with instructions to pay the amount to another person elsewhere.

The concentration-and-combination movement in banking which proceeded rapidly in many countries following the war was also evident in Germany. By 1928 that country had made an amazing economic recovery from the ravages of the infla-

[1] Pages 696–697. Published by Henry Holt and Company.

tionary period, much of this progress being due to foreign loans; but as the depression which began in 1929 deepened, the government gradually began to extend its already broad control over German economic life. The grave international banking and financial crisis of 1931 resulted, as in the United States, in a bank holiday and forced the government to come to the aid of the banks. One of the largest, the Darmstaedter und National Bank, failed in that panic but was subsequently reopened.

The German government was forced to buy stock in a number of the banks in order to prevent their failure, so that by early 1934 it held 70 per cent of the capital of the large banks. Adolf Hitler became chancellor in January, 1933, and the Reichsbank since that time has been subject to drastic governmental control. Hjalmar Schacht, the president of the Reichsbank, is also Minister of Economics, and under this dual control the Reichsbank has become an important instrument in the carrying out of governmental policy. The last four years have witnessed a rapid development in the socialization of banking in Germany.

A new act covering the German banks went into effect on January 1, 1935. It is called the Reich Credit Act and applies to all German banks except the Reichsbank and certain small institutions. A Reich commissioner of credit was established by the act, with power to license banks and subject them to rigorous control.

The Canadian Banking System

Canada has long been regarded as a country with an excellent banking system, a country with but few bank failures. Since 1914 there has been but one failure, that of the Home Bank in 1923. There are only ten banks in Canada, all chartered by the national government, but they have approximately thirty-six hundred branches, stretching from the Atlantic to the Pacific, carrying banking service to remote towns and villages. At one time there were forty banks; twenty years ago there were still nearly thirty. The concentration movement, similar to that which has occurred in many other countries, has proceeded so rapidly since 1900 that only ten remain.

The note issue of the Canadian banks was believed by those who framed the American Federal Reserve Act to be a splendid example of an elastic currency of a pure-asset type. American respect for the Canadian system increased greatly after 1929 because, while American banks were failing by the thousands, not one Canadian bank suspended. The depression did reveal, however, that Canada as well as the United States was somewhat overbanked. As a result the Canadian banks closed about three hundred branches, mostly in the western provinces. Though there was no central bank in Canada, this was not generally regarded as a serious defect. It was with surprise, therefore, that American observers learned that Canada was planning to create a central bank. It was well known that the number of central banks throughout the world had increased following the war. England, France, Finland, Holland, Norway, Austria, Denmark, Portugal, Spain, Belgium, Greece, and Italy were countries with long experience in central banking. Germany, Rumania, Japan, Serbia, Bulgaria, Uruguay, Egypt, Switzerland, and Australia joined the list after 1870. Since 1919 central banks have been established in Czechoslovakia, South Africa, Latvia, Peru, Danzig, Poland, Hungary, Ecuador, Chile, New Zealand, Estonia, and India, among others. Approximately forty countries now have central banks in operation.

¶ In 1933 a royal commission composed of Lord Macmillan (chairman of the committee which drafted the famous British Macmillan Report), Sir Charles Addis, and several Canadians recommended that Canada establish a central bank. Much of the support for a Canadian central bank came from the agricultural West, which believed it had not been given adequate credit facilities by the chartered banks. There may have been a basis for this complaint, but it was not, primarily, the fault of the chartered banks, since they were forbidden by law to make loans on real-estate security. Probably the strong inflationary sentiment in portions of western Canada was also responsible. There was, too, a widespread feeling that, since most other countries now had central banks, Canada must follow the example to be in style. It was believed, furthermore, that the bank could

control the foreign-exchange value of the currency, assist in steadying the money market, and assist in preventing bad business fluctuations. These were some of the things that Americans were told over twenty years ago the Federal Reserve System would accomplish.

Canada has now joined the list of countries with central banks in operation. The act establishing the new Bank of Canada, the name by which the central bank is known, became law on July 3, 1934. Let us turn for a moment to an outline of the Canadian commercial-banking system.

Canadian Commercial Banking. All banks in Canada must be chartered by the Parliament at Ottawa. The minimum capital required is $500,000, one half of which must be paid in before opening. The leading Canadian banks now in existence are the Royal Bank of Canada, the Bank of Montreal, the Canadian Bank of Commerce, the Bank of Nova Scotia, the Imperial Bank of Canada, and the Dominion Bank. The first four do approximately 70 per cent of the banking business in Canada. The majority of the head offices are located in Montreal or Toronto. Branches are subject to strict supervision by their head offices, but the head offices themselves do not do a banking business.

The banks do a general deposit and commercial banking business similar to that carried on in the United States. The use of the bank check is general throughout Canada. On the whole, however, Canadian banks have held borrowers to more strict requirements than have many American banks. Canadian banks cannot make loans on real-estate security. Had American banks been held to a similar limitation during the past twenty years, bank failures in the United States would probably have been much fewer in number.

Each Canadian bank was, until 1935, permitted to issue notes up to the amount of its paid-in capital. No reserve was required against these notes except a 5 per cent redemption fund deposited with the Minister of Finance at Ottawa. They were, however, backed by the general assets of the bank and were a famous example of pure-asset currency. An emergency note issue of an additional 15 per cent of a bank's capital and surplus was per-

mitted, being subject, however, to a tax. Notes of a failed bank bore 5 per cent interest until they were redeemed.

On the whole, Canadian banks have been much less subject to government control than have American banks. There was, until 1935, no requirement of reserves against deposits. It was not until 1924 that provision was made for adequate government inspection.

Canada has had few bank failures, but one reason for this has been that other banks have usually taken over a bank which was on the point of closing. Therefore there have been a number of mergers in the past, with little or no loss to depositors.

The Canadian Bankers' Association is a semiofficial regulatory body, quite different from its American counterpart. If a bank is found to be insolvent, the association may place a "curator" in charge of its affairs to restore it to solvency or to liquidate it. The association also has control over clearinghouses and the printing and distribution of bank notes.

One criticism that has frequently been made of the Canadian system is that it is too impersonal, lacking greatly the human touch. It is argued that too little freedom has been given local branch managers, who must constantly refer all applications for loans above a small amount to the head office. This tends, so it is claimed, to render the system "cold-blooded," with little interest in local industries, making it unsympathetic with the needs of the various areas in which the branches are located.

In spite of this criticism, the system has been excellently managed and has carried banking facilities into remote sections of the Dominion. Frequently a small branch office is placed in a town which would otherwise have no banking services open to it. *And there have been practically no bank failures during the past thirty years.* To an American this is a fact of utmost importance.

It has frequently been said that since the Finance Act of 1914 Canada has had in operation a mechanism which has performed certain central-banking functions. The Minister of Finance rediscounted commercial paper for and made advances to the chartered banks, making payment to them in Dominion notes. This act was made permanent in 1923, but is now superseded by the act of 1934.

Every ten years it has been the practice to amend the Canadian banking law to take care of necessary changes. This was to have taken place in 1933, but action was delayed until 1934 in order to provide for the creation of a central bank.

The Bank of Canada. The new central bank of Canada began operations in March, 1935. The purposes for which it was established may be found in the preamble to the act establishing it, as follows:

> Whereas it is desirable to establish a central bank in Canada to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible within the scope of monetary action, and generally to promote the economic and financial welfare of the Dominion, . . .

This preamble should be read carefully several times in order to gain an adequate comprehension of the heavy responsibilities entrusted to those who are to manage the Bank of Canada. The bank is specifically given the task of attempting "*to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible within the scope of monetary action.*" This is as important a task as has ever been given to a central bank in recent times. How successful the bank will be in this respect only the future can reveal.

The capital of the Bank of Canada is $5,000,000. In contrast with the American Federal reserve banks, which are owned by the member banks, the Canadian bank is privately owned. Its shares have a par value of $50, pay a 4½ per cent cumulative annual dividend, and have been already purchased by over 12,000 persons. No bank may own any shares. They may be held only by British subjects residing in Canada, and no one person may own more than fifty shares. No director, officer, or employee of a chartered bank may become a shareholder in the Bank of Canada. Had an insufficient number of shares been sold to the public to raise the necessary capital, the Minister of Finance would have been required to subscribe for them with

public funds. The government, therefore, would have been a partial owner until the shares so acquired could be distributed to the public. Branches may be established as the need arises.

The first governor, deputy governor, and assistant deputy governor were appointed by the governor general in council. Subsequent appointments are to be made by the directors (seven in number, chosen by the stockholders), with the approval of the governor general in council. No director, officer, or employee of a chartered bank may be a director.

One of the most important changes in the Canadian banking system which will result from the establishment of the Bank of Canada is that of the gradual retirement of the majority of the notes issued by the chartered banks. These banks will retain the right to issue notes up to 25 per cent of their capital. The central bank will, therefore, not have a monopoly of note issue. Its notes will replace the issues of the chartered banks to the proportion just mentioned, will be full legal tender, and a first charge upon the assets of the bank. Its notes will also replace the Dominion notes, which in the past were issued to the chartered banks by the Minister of Finance at Ottawa upon the security of gold, silver, various bonds, and commercial paper. Dominion notes formerly constituted the paper money of small denominations in Canada, the banks paying them out after receiving them from the government.

The chartered banks must now maintain a reserve of 5 per cent against all deposits within Canada. This reserve consists of a deposit in the Bank of Canada and of the notes of that bank held by the chartered bank. The central bank pays no interest on such deposits. Unlike the reserve requirements of the Federal Reserve System no distinction is made between time and demand deposits; moreover, Federal reserve notes may not be counted as legal reserve by the member banks.

All gold held by the chartered banks and the government must be turned over to the central bank. The act provides for the ultimate return of Canada to the gold-bullion standard, permitting the sale of gold bars containing approximately four hundred ounces of fine gold in exchange for Bank of Canada notes.

The central bank must maintain a reserve of gold coin and bullion to the amount of 25 per cent against both its outstanding notes and its deposit liabilities. An additional reserve may be made up of silver bullion and of foreign exchange — *balances* with the Bank of England, the Bank for International Settlements, the Federal Reserve Bank of New York, or any central bank in a country whose currency is redeemable in exportable gold; treasury bills or other obligations of the United Kingdom or the United States, with a maturity of not over three months; bills of exchange having a maturity of not over ninety days.

The Bank of Canada rediscounts commercial paper for the chartered banks, and also serves as the fiscal agent for the Dominion and provincial governments, making loans and advances to them. It may also engage in open-market operations, buying and selling cable transfers, bills of exchange bankers' acceptances, and certain types of securities.

The general powers of the Bank of Canada are stated by sections 21, 22, and 23 of the act of July 3, 1934, to be as follows:

BUSINESS AND POWERS OF THE BANK

21. (1) The Bank may

(*a*) buy and sell gold, silver, nickel and bronze coin and gold and silver bullion;

(*b*) effect transfers of funds by telegram, letter or other method of communication, and buy and sell transfers effected by such means, trade acceptances, bankers' acceptances, bankers' drafts, and bills of exchange drawn in or on places outside of Canada and having a maturity not exceeding ninety days excluding days of grace, or not exceeding ninety days after sight excluding days of grace, from the date of acquisition by the Bank;

(*c*) buy and sell or rediscount short-term securities issued or guaranteed by the Dominion of Canada or any province, having a maturity not exceeding two years from the date of acquisition by the Bank;

(*d*) buy and sell securities issued or guaranteed by the Dominion of Canada or any province, having a maturity exceeding two years from the date of acquisition by the Bank but the Bank shall at no time hold such securities (exclusive of securities transferred to the Bank under paragraph (*c*) of subsection three of section twenty-five) of a par value in excess of three times the amount of the paid-up capital of the Bank;

(*e*) buy and sell short-term securities issued by the United Kingdom, any British Dominion, the United States of America, or France, having a maturity not exceeding six months from the date of acquisition by the Bank;

(*f*) buy and sell securities issued by the United Kingdom or the United States of America, having a maturity exceeding six months from the date of acquisition by the Bank, but the Bank shall at no time hold such securities in excess of one-half of the amount of the paid-up capital of the Bank;

(*g*) buy and sell or rediscount bills of exchange and promissory notes endorsed by a chartered bank drawn or issued in connection with the production or marketing of goods, wares and merchandise as defined in *The Bank Act*, excepting those mentioned in paragraph (*h*) of this subsection, and having a maturity not exceeding ninety days excluding days of grace, or not exceeding ninety days after sight excluding days of grace from the date of acquisition by the Bank;

(*h*) buy and sell or rediscount bills of exchange and promissory notes endorsed by a chartered bank, drawn or issued in connection with the production or marketing of products of agriculture, the forest, the quarry and mine, or the sea, lakes and rivers, as defined in *The Bank Act*, and having a maturity not exceeding one hundred and eighty days excluding days of grace from the date of acquisition by the Bank: Provided that the Bank may by regulation limit to a percentage of its total assets the amount of such paper having a maturity in excess of ninety days excluding days of grace but not exceeding one hundred and eighty days excluding days of grace, from the date of acquisition by the Bank;

(*i*) make loans or advances for periods not exceeding six months to chartered banks or to banks incorporated under the *Quebec Savings Banks Act* on the pledge or hypothecation of the foregoing classes of securities, bills of exchange or promissory notes, or of Canadian municipal securities, or of securities issued by a school corporation or parish trustees, or of securities issued pursuant to the statutes of a province making provision for the payment thereof and the interest thereon by the province, or of gold or silver coin or bullion, or documents of title relating thereto;

(*j*) make loans or advances for periods not exceeding six months to the Dominion Government or the government of any province on the pledge or hypothecation of readily marketable securities issued or guaranteed by the Dominion of Canada or any province;

(*k*) make loans to the Dominion Government or the government of any province, but such loans outstanding at any one time shall not, in the case of the Dominion Government, exceed one-third of the estimated revenue of such government for its fiscal year, and shall not in the case of any provincial government exceed one-fourth of such government's estimated revenue for its fiscal year; and such loans shall be repaid before the end of the first quarter after the end of the fiscal year of such government;

(*l*) for the purpose of its open market operations, buy and sell in the open market from or to any person, either in or outside of Canada, securities, cable transfers, bankers' acceptances, and bills of exchange of the kinds and maturities defined in, and subject to the limitations, if any, contained in, paragraphs (*b*), (*c*), (*d*), (*e*), (*g*), and (*h*) of this subsection with or without the endorsement of a chartered bank;

(*m*) accept from the Dominion Government or the government of any province or from any chartered bank or from any bank incorporated under the *Quebec Savings Banks Act* deposits which shall not bear interest;

(*n*) open accounts in a central bank in any other country or in the Bank for International Settlements and act as agent, depository or correspondent of such other central banks or the Bank for International Settlements;

(*o*) acquire by purchase or lease and hold real or immovable property for the actual use and occupation of the Bank in connection with its business and sell and dispose of the same;

(*p*) do anything ancillary to all or any of the above purposes.

(2) The Bank may acquire from any chartered bank and hold any warehouse receipt, bill of lading and other security, held by such chartered bank pursuant to the provisions of *The Bank Act*, as collateral security for the repayment of any bill of exchange or promissory note acquired by the Bank under the provisions of the next preceding subsection; and the Bank may exercise every right and remedy in respect of such collateral security as could have been exercised by the chartered bank aforesaid.

22. The Bank shall not, except as authorized by this Act,

(*a*) engage or have a direct interest in any trade or business whatsoever;

(*b*) purchase its own stock or the shares of any other bank except the Bank for International Settlements or make loans upon the security thereof;

(*c*) lend or make advances upon the security of any real or immovable property; provided that in the event of any claims of the Bank being in the opinion of the Board endangered, the Bank may secure itself on any real property of the debtor or any other person liable and may acquire such property, which shall, however, be resold as soon as practicable thereafter;

(*d*) make loans or advances without security;

(*e*) accept deposits for a fixed term or pay interest on any moneys deposited with the Bank;

(*f*) allow the renewal of maturing bills of exchange, promissory notes or other similar documents purchased or discounted by or pledged to the Bank, provided that the Board may make regulations authorizing in special circumstances not more than one renewal of any such bill of exchange, promissory note or other document.

23. (1) The Bank shall act as fiscal agent of the Government of Canada without charge and, subject to the provisions of this Act, by agreement, may also act as banker or fiscal agent of the government of any province.

(2) The Bank, if and when required by the Minister so to do, shall act as agent for the Government of Canada in the payment of interest and principal and generally in respect of the management of the public debt of Canada.

(3) The Bank shall not make any charge for cashing any cheque drawn on the Receiver General or on his account or for cashing any other instrument issued as authority for the payment of money out of the Consolidated Revenue Fund or upon any cheque drawn in favour of the Government of Canada or any department thereof and tendered for deposit in the Consolidated Revenue Fund.

Like the Federal reserve banks, the Bank of Canada is primarily a banker's bank. Only in its open-market operations may it have dealings with individuals.

Those who sponsored the new central bank made much of the argument that it would place Canada on the same plane as other countries, giving it autonomous control over its own currency and bank credit. The private chartered banks would, it was claimed, lose their dominant power and Wall Street would no longer fix the rate of Canadian exchange. Canada would cease to be a financial vassal of New York.

The chartered banks fought some of the provisions of the Bank of Canada Act vigorously and protested against being compelled to turn in their gold at $20.67 an ounce. They claimed they should have $35 an ounce, as Canada proposed to revalue its gold supply at that price. (In June, 1935, Canada did so revalue its gold.)

Some critics of the new central bank claim that it will become merely an adjunct of the Bank of England. Others claim a great mistake was made in not providing for government ownership of the bank.

The statement of July 3, 1935, showed that the Bank of Canada had just made its first advance to a chartered bank, $1,000,000. It had previously lent $4,000,000 to the Dominion Government.

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CHAPTER XXXII

SOME CONCLUSIONS

The reader of the preceding pages must now be convinced that, with the exception of short periods of relative calm, the important nations of the world have experienced during the past one hundred and fifty years a continual succession of baffling monetary and banking problems. If we were certain that we had learned from this experience what should be done and what should not be done, we could feel that it was well worth the cost. How fervently we wish that this were true!

As we enter the summer of 1935, monetary and banking chaos is the rule rather than the exception in many lands. Controversy knows no geographical or political boundaries, and what the immediate future will hold is most uncertain.

Exactly what caused the great depression beginning in 1929 is not much more clear than it was five years ago. Whether natural or economic forces alone would have brought us all back to prosperity may possibly never be known, for few nations have permitted the depression to run its course. Dictators have seized power in country after country, and democratic peoples have demanded that their governments should force recovery through various kinds of legislation. It was politically impossible to continue a policy of *laissez faire*.

In their efforts to appease their suffering citizens some governments have fought the depression by means of monetary weapons. Others have chosen different means. Whether or not the world is moving permanently toward a more thoroughly socialized economic system is a matter of universal debate.

We are told by some authorities that our salvation lies in a more intelligent control of our monetary and banking systems. If we refuse to adopt this policy, they assert, modern nations will

go either Fascist or Communist. Other authorities deny these statements with vehemence, and the public remains in a state of bewilderment, with a growing distrust of most so-called experts.

The silver policy of the United States remains in a state of confusion. Is its ultimate goal the restoration of bimetallism? No one knows. During the latter part of April, 1935, silver markets behaved in a spectacular manner. The government had, through its silver-purchase policy, forced the price of silver to 81 cents an ounce by April 26; or possibly this was due to the work of speculators. Then came a decline, but when the price will ultimately reach its goal, $1.29 an ounce, no one can foretell. The chief result of this unfortunate policy has been to launch China into a serious depression, to close many Chinese banks, and to bring serious trouble and a bank holiday to Mexico, forcing that country to recoin its money.

It will be remembered that silver was to be bought until the price reached $1.29 an ounce or until silver constituted one fourth of our total metallic reserves. But gold has been coming to the United States so rapidly that a much larger amount of silver must now be bought than was originally planned. The only beneficiaries so far of this policy are the silver-miners and the speculators. Did we learn nothing from our silver-purchase acts of 1878 and 1890?

Will the world move again to gold? If so, when? The number of nations comprising the gold bloc becomes steadily smaller. The spring of 1935 saw the development of another flight of gold from Belgium, Holland, and France. Belgium devalued her currency overnight on March 30 by 28 per cent. The obligation of the National Bank of Belgium to redeem its notes in gold or gold exchange has been suspended indefinitely. Gold then flowed back to Belgium, and temporarily her difficulties decreased. Devaluation has been almost the rule rather than the exception since the war, and the list of nations which have decided to reduce the gold content of their monetary units steadily lengthens.

With France, Holland, and Switzerland as the only countries in the world now on the gold standard in the originally accepted

sense of the word, it may be of interest at this time to recall the list of suspensions by nations which have not since returned to gold. The list should be prefaced by Brazil, Costa Rica, Honduras, Iran, Spain, Turkey, and Uruguay, which went off gold prior to 1929 and remained off. With this in mind, the chronology follows: December 16, 1929, Argentina and Paraguay; December 17, Australia; July 25, 1931, Mexico; September 21, Great Britain, Colombia, Egypt, India, British Malaya, Palestine; September 25, Bolivia; September 26, Irish Free State; September 27, Norway, Sweden; September 28, Denmark; October 8, El Salvador; October 12, Finland; October 19, Canada; December 13, Japan; December 31, Portugal; February 9, 1932, Ecuador; April 20, Chile; April 26, Greece; May 11, Siam; May 18, Peru; October 17, Yugoslavia; December 28, Union of South Africa; April 19, 1933, United States of America (returned January 31, 1934); June 28, Estonia; March 30, 1935, Belgium. Germany, Italy, and Poland claim to be still on gold, but this is doubtful.

How long can France withstand the spiral of deflation now ceaselessly operating in that country? Clinging valiantly to the gold standard, late in May and early in June, 1935, she is again undergoing a severe political crisis. Those who argue that a country should always hold to the gold standard rigorously and that eventually all will be well should study the experience of France. The present plight of that country gives support to the conclusion of Douglas Copland, the well-known Australian economist, that "in a crisis when values are collapsing rigid adherence to a gold standard is the most restrictive of all forms of regulation."[1]

The Australian experience is illuminating. One of the first to encounter the depression, Australia abandoned the gold standard suddenly on December 17, 1929, so that her currency depreciated in the foreign-exchange markets, which resulted in an increase in exports and a decline in imports. Then the government forced through a quick deflation by reducing wages, rents,

[1] Douglas Copland, *Australia in the World Crisis, 1929–1933*, p. 177. The Macmillan Company.

and interest rates. The Australian policy was to reduce costs quickly and restore equilibrium, almost the exact reverse of the policy pursued by the United States during the past two years. Australia now seems to be well on the road to a moderate prosperity. However, even if the United States had wished to follow this example, it did not possess the political means to do so.

If France abandons the gold standard and devalues, will the other nations engage in a great international monetary struggle with her? Will some of them again devalue? What will England do? Statesmen of England, France, and the United States have repeatedly said in recent months that international currency stabilization is necessary, but no one seems to be willing to take the lead. The United States stabilized the dollar early in 1934 by returning to a fixed price for gold. Other nations wonder whether this is to be permanent. Ultimately stabilization of the leading international currencies will be essential.

Meanwhile the United States is again debating proposed changes in the Federal Reserve Act. Governor Marriner S. Eccles of the Federal Reserve Board is ardently advocating the concentration of greater authority in the hands of that body. Opponents of the amendments argue that the result would be a socialization of the American banking system. What the American people must decide is whether or not they wish to attempt to prevent future depressions by more stringent monetary and banking control. The time to prevent a depression is in the period of prosperity, before boom conditions have developed which will make a depression inevitable. If we desire to attempt this, control must be centralized somewhere, and the logical place is in the Federal Reserve Board. But we are told that this will inject politics into the Federal Reserve System, with fatal results. This may be true, but we shall never learn whether depressions can be prevented by such a method unless we are willing to experiment. Experimentation is dangerous, but in what other manner can the country learn whether such control is feasible?

Some critics of the Federal Reserve Board maintain, however, that it has administered the Federal Reserve System with so

little intelligence that it should not be given additional powers. Professor H. Parker Willis of Columbia, who assisted in the drafting of the Federal Reserve Act, has become a bitter critic of the way in which the Federal Reserve System has been managed. Its rediscount policy, he says, has been characterized by vacillation. He further accuses it of having been weak and unsuccessful, of having denied or minimized dangerous tendencies in the decade following the World War. He claims that its major occupation came to be the financing of speculation and that today the system "stands as a menace rather than as an assistance to the banks of the country"; that it has completely disregarded the principle of liquidity. The present banking situation, with the commercial banks and the Federal reserve banks holding approximately 50 per cent of the debt of the national government, is, in his opinion, an extremely dangerous one. The "frozen" state of bank assets is growing. Consequently, "there is need for complete rectification and reconstruction, even of the very foundation upon which the present-day banking system of the United States rests."[1] Such statements as these have added to the state of confusion existing in the minds of the American people.

Plans for reforming our monetary and banking system have appeared in great numbers during the last four years. Stamped scrip, originally proposed by Silvio Gesell, has many ardent supporters, as does the social credit system of Major Douglas. But Major Douglas has never satisfactorily explained just how his National Dividend Account is to be originally created. Because, according to Major Douglas, depressions are caused by a chronic shortage of purchasing power, he would have the government draw checks upon the National Dividend Account to be disbursed to individuals for various purposes. The amount of the National Dividend Account would equal, roughly, the value of all the wealth in the country. Hence, he argues, there could be no inflation!

Professor Irving Fisher, also an ardent stamped-scrip advocate, now proposes that the principle of partial reserves should be abolished and that we should require a 100 per cent reserve

[1] Willis and Chapman, *The Banking Situation*, pp. 4, 116–117. Columbia University Press.

behind bank notes and deposits. This, he believes, will give greater safety and prevent undesirable variations in the amount of bank credit outstanding.[1]

Most of the problems which now torment us would be solved temporarily by the return of world prosperity. In the United States there seems to be a race between business recovery and some kind of inflation. The American people must set their faces sternly against proposals for currency inflation. If there ever was a time during this depression to suggest such a step, that time is past. The lessons from our monetary history prove this point.

With over $9,000,000,000 in gold in the United States, with excess reserves approaching $2,500,000,000 held by the member banks in the reserve banks, with member banks holding large amounts of government bonds upon which they can borrow, the stage is set for a great bank-credit inflation, but let us hope that control of a drastic sort will be exercised by the Federal Reserve Board before bank credit expands to anything like the amount permissible. The fact that large potential inflationary power is present does not mean that it will always be used.[2]

The huge new public-works program, proposing an expenditure of nearly $5,000,000,000, will be worth the cost if it succeeds in restoring prosperity. It may lead to bank-credit inflation, but that can be controlled if the Federal Reserve Board has the courage to do so and the American people support the board. If prosperity does return, income taxes must be maintained at high levels in order to retire our national debt as rapidly as possible.

Only one thing appears to be certain: as yet we know very little about the economic forces which dominate our lives and so frequently bring disaster. Shall these forces control us or shall we control them? Is an attempt to control them through monetary and banking policy worth while? If not, what is the alternative? What will be the future of democracy if we fail to try?

[1] Irving Fisher, *100% Money*. Adelphi Co.

[2] The difficulties which will be experienced by any program for credit control have been ably described by A. C. Pigou, *Industrial Fluctuations* (The Macmillan Company); C. O. Hardy, *Credit Policies of the Federal Reserve System* (The Brookings Institution); and W. E. Dunkman, *Qualitative Credit Control* (Columbia University Press).

APPENDIX

Important paragraphs from the decision of the Supreme Court of the United States (February 18, 1935) on the abrogation by Congress (June 5, 1933) of the gold clause in government bonds and private bonds and contracts.

I. UNITED STATES GOVERNMENT BONDS

The question is necessarily presented whether the joint resolution of June 5, 1933 (48 Stat. 113), is a valid enactment so far as it applies to the obligations of the United States. The resolution declared that provisions requiring "payment in gold or a particular kind of coin or currency" were "against public policy," and provided that "every obligation, heretofore or hereafter incurred, whether or not any such provision is contained therein," shall be discharged, "upon payment, dollar for dollar, in any coin or currency which at the time of payment is legal tender for public and private debts."

This enactment was expressly extended to obligations of the United States; and provisions for payment in gold, "contained in any law authorizing obligations to be issued by or under authority of the United States," were repealed.

There is no question as to the power of the Congress to regulate the value of money, that is, to establish a monetary system and thus to determine the currency of the country.

The question is whether the Congress can use that power so as to invalidate the terms of the obligations which the government has theretofore issued in the exercise of the power to borrow money on the credit of the United States.

In attempted justification of the joint resolution in relation to the outstanding bonds of the United States, the government argues that "earlier Congresses could not validly restrict the 73rd Congress from exercising its Constitutional powers to regulate the value of money, borrow money, or regulate foreign and interstate commerce"; and from this premise, the government seems to deduce the proposition that when, with adequate authority, the government borrows money and pledges

the credit of the United States, it is free to ignore that pledge and alter the terms of its obligations in case a later Congress finds their fulfillment inconvenient.

The government's contention thus raises a question of far greater importance than the particular claim of the plaintiff. On that reasoning, if the terms of the government's bond as the standard of payment can be repudiated, it inevitably follows that the obligation as to the amount to be paid may also be repudiated.

The contention necessarily imports that the Congress can disregard the obligations of the government at its discretion and that, when the government borrows money, the credit of the United States is an illusory pledge.

We do not so read the Constitution. There is a clear distinction between the power of the Congress to control or interdict the contracts of private parties when they interfere with the exercise of its Constitutional authority, and the power of the Congress to alter or repudiate the substance of its own engagements when it has borrowed money under the authority which the Constitution confers.

In authorizing the Congress to borrow money, the Constitution empowers the Congress to fix the amount to be borrowed and the terms of payment. By virtue of the power to borrow money "on the credit of the United States," the Congress is authorized to pledge that credit as an assurance of payment as stipulated — as the highest assurance the government can give, its plighted faith.

To say that the Congress may withdraw or ignore that pledge is to assume that the Constitution contemplates a vain promise, a pledge having no other sanction than the pleasure and convenience of the pledgor. This Court has given no sanction to such a conception of the obligations of our government . . .

We conclude that the joint resolution of June 5, 1933, in so far as it attempted to override the obligation created by the bond in suit, went beyond the Congressional power.

The Question of Damages. In this view of the binding quality of the government's obligations, we come to the question as to the plaintiff's right to recover damages. That is a distinct question; because the government is not at liberty to alter or repudiate its obligations, it does not follow that the claim advanced by the plaintiff should be sustained.

The action is for breach of contract. As a remedy for breach, plaintiff can recover no more than the loss he has suffered and on which he may rightfully complain. He is not entitled to be enriched.

Plaintiff seeks judgment for $16,931.25, in present legal tender currency, on his bond for $10,000. The question is whether he has shown damage to that extent, or any actual damage, as the Court of Claims has no authority to entertain an action for normal damages . . .

Plaintiff demands the "equivalent" in currency of the gold coin promised. But "equivalent" cannot mean more than the amount of money which the promised gold coin would be worth to the bondholder for the purposes for which it would legally be used. That equivalent or worth could not properly be ascertained save in the light of the domestic and restricted market which the Congress had lawfully established.

In the domestic transactions to which the plaintiff was limited, in the absence of special license, determination of the value of the gold coin would necessarily have regard to its use as legal tender and as a medium of exchange under a single monetary system with an established parity of all currency and coins. And in view of the control of export and foreign exchange, and the restricted domestic use, the question of value, in relation to transactions legally available to the plaintiff, would require a consideration of the purchasing power of the dollars which the plaintiff has received. Plaintiff has not shown, or attempted to show, that in relation to buying power he has sustained any loss whatever.

On the contrary, in view of the adjustment of the internal economy to the single measure of value as established by the legislation of the Congress, and the universal availability and use throughout the country of the legal tender currency in meeting all engagements, the payment to the plaintiff of the amount which he demands would appear to constitute not a recoupment of loss in any proper sense but an unjustified enrichment. . . .

In the view that the facts alleged by the petition fail to show a cause of action for actual damages, the first question submitted by the Court of Claims is answered in the negative. It is not necessary to answer the second question.

II. STATE AND LOCAL GOVERNMENT BONDS AND PRIVATE BONDS AND CONTRACTS

The question before the Court is one of power, not of policy. And that question touches the validity of these measures at but a single point, that is, in relation to the joint resolution denying effect to "gold clauses" in existing contracts . . .

When these contracts were made they were not repugnant to any action of the Congress. In order to determine whether effect may now be given to the intention of the parties in the face of the action taken by the Congress, or whether the contracts may be satisfied by the payment dollar for dollar, in legal tender, as the Congress has now prescribed, it is necessary to consider:

1. The power of the Congress to establish a monetary system and the necessary implications of that power.
2. The power of the Congress to invalidate the provisions of existing contracts which interfere with the exercise of its Constitutional authority.
3. Whether the clauses in question do constitute such an interference as to bring them within the range of that power . . .

The instant cases involve contracts between private parties, but the question necessarily relates as well to the contracts or obligations of states and municipalities, or of their political subdivisions, that is, to such engagements as are within the reach of the applicable national power.

The government's own contracts — the obligations of the United States — are in a distinct category and demand separate consideration.

Here, the Congress has enacted an express interdiction. The argument against it does not rest upon the mere fact that the legislation may cause hardship or loss. Creditors who have not stipulated for gold payments may suffer equal hardship or loss with creditors who have so stipulated. The former admittedly have no Constitutional grievance. And, while the latter may not suffer more, the point is pressed that their express stipulations for gold payments constitute property, and that creditors who have not such stipulations are without that property right . . .

The principle is not limited to the incidental effect of the exercise by the Congress of its Constitutional authority. There is no Constitutional ground for denying to the Congress the power expressly to prohibit and invalidate contracts although previously made, and valid when made, when they interfere with the carrying out of the policy it is free to adopt.

If the gold clauses now before us interfere with the policy of the Congress in the exercise of that authority, they cannot stand . . .

Despite the wide range of the discussion at the bar and the earnestness with which the arguments against the validity of the joint resolution have been pressed, these contentions necessarily are brought, under the dominant principles to which we have referred, to a single and narrow point.

That point is whether the gold clauses do constitute an actual interference with the monetary policy of the Congress in the list of its broad power to determine that policy . . .

The Congress is entitled to its own judgment. We may inquire whether its action is arbitrary or capricious, that is, whether it has reasonable relation to a legitimate end. If it is an appropriate means to such an end, the decisions of the Congress as to the degree of the necessity for the adoption of that means is final . . .

The Congress in the exercise of its discretion was entitled to consider the volume of obligations with gold clauses, as that fact, as the report of the House committee observed, obviously had a bearing upon the question whether their existence constituted a substantial obstruction to the Congressional policy.

The estimates submitted at the bar indicate that when the joint resolution was adopted there were outstanding seventy-five billion dollars or more of such obligations, the annual interest charges on which probably amounted to between three and four billion dollars.

It is apparent that if these promises were to be taken literally, as calling for actual payment in gold coin, they would be directly opposed to the policy of Congress, as they would be calculated to increase the demand for gold, to encourage hoarding and to stimulate attempts at exportation of gold coin . . .

The devaluation of the dollar placed the domestic economy upon a new basis. In the currency as thus provided, states and municipalities must receive their taxes; railroads, their rates and fares; public utilities, their charges for services. The income out of which they must meet their obligations is determined by the new standard. Yet, according to the contentions before us, while that income is thus controlled by law, their indebtedness on their "gold bonds" must be met by an amount of currency determined by the former gold standard.

Their receipts, in this view, would be fixed on one basis; their interest charges and the principal of their obligations, on another.

It is common knowledge that the bonds issued by these obligors have generally contained gold clauses, and presumably they account for a large part of the outstanding obligations of that sort. It is also common knowledge that a similar situation exists with respect to numerous industrial corporations that have issued their "gold bonds" and must now receive payments for their products in the existing currency.

It requires no acute analysis or profound economic inquiry to disclose the dislocation of the domestic economy which would be caused by such a

disparity of conditions in which, it is insisted, those debtors under gold clauses should be required to pay one dollar and sixty-nine cents in currency while respectively receiving their taxes, rates, charges and prices on the basis of one dollar of that currency . . .

The judgment and decree, severally under review, are affirmed.

III. DISSENTING OPINION

Justice McReynolds, dissenting in all cases, said:

Mr. Justice Van Devanter, Mr. Justice Sutherland, Mr. Justice Butler and I conclude that, if given effect, the enactments here challenged will bring about confiscation of property rights and repudiation of national obligations.

Aquiescence in the decisions just announced is impossible; the circumstances demand statement of our views. . . .

Just men regard repudiation and spoliation of citizens by their sovereign with abhorrence; but we are asked to affirm that the Constitution has granted power to accomplish both. No definite delegation of such power exists; and we cannot believe the farseeing framers, who labored with hope of establishing justice and securing the blessings of liberty, intended that the expected government should have authority to annihilate its own obligations and destroy the very rights which they were endeavoring to protect. . . .

The Federal government is one of delegated and limited powers which derive from the Constitution. "It can exercise only the powers granted to it." Powers claimed must be denied unless granted; and, as with other writings, the whole of the Constitution is for consideration when one seeks to ascertain the meaning of any part. . . .

Four cases are here for decision.

Two of them arise out of corporate obligations containing gold clauses — railroad bonds.

One is based on a United States Fourth Liberty Bond of 1918, called for payment April 15, 1934, containing a promise to pay "in United States gold coin of the present standard of value" with interest in like gold coin.

Another involves gold certificates, series 1928, amounting to $106,300.

As to the corporate bonds the defense is that the gold clause was destroyed by the resolution of June 5, 1933, and this view is sustained by the majority of the Court.

It is insisted that the agreement, in the Liberty Bond, to pay in gold also was destroyed by the act of June 5, 1933. This view is rejected by the majority; but they seem to conclude that because of the action of Congress in declaring the holding of gold unlawful, no appreciable damage resulted when payment therein or the equivalent was denied.

Concerning the gold certificates it is ruled that if upon presentation for redemption gold coin had been paid to the holder, as promised, he would have been required to return this to the Treasury. He could not have exported it or dealt with it. Consequently he sustained no actual damage . . .

The authority exercised by the President and the Treasury in demanding all gold coin, bullion and certificates is not now challenged; neither is the right of the former to prescribe weight for the standard dollar. These things we have not considered. Plainly, however, to coin money and regulate the value thereof calls for legislative action. . . .

This Court has not heretofore ruled that Congress may require the holder of an obligation to accept payment in subsequently devalued coins, or promises by government to pay in such coins. The legislation before us attempts this very thing. If this is permissible, then a gold dollar containing one grain of gold may become the standard, all contract rights fall, and huge profits appear on the Treasury books. Instead of $2,800,000,000 as recently reported, perhaps $20,000,000,000, maybe enough to cancel the public debt, maybe more!

The power to issue bills and "regulate values" of coin cannot be so enlarged as to authorize arbitrary action, whose immediate purpose and necessary effect is destruction of individual rights. As this Court has said, a "power to regulate is not a power to destroy" (154 U. S. 362, 398).

But we must not forget that if this power exists, Congress may readily destroy other obligations which present obstruction to the desired effect of further depletion. The destruction of all obligations by reducing the standard gold dollar to one grain of gold, or brass or nickel or copper or lead will become an easy possibility.

Thus we reach the fundamental question which must control the result of the controversy in respect of corporate bonds. Apparently in the opinion of the majority the gold clause in the Liberty Bond withstood the June 5th resolution notwithstanding the definite purpose to destroy it.

We think that in the circumstances, Congress had no power to destroy

the obligations of the gold clauses in private obligations. The attempt to do this was plain usurpation, arbitrary and oppressive . . .

Congress may coin money; also it may borrow money. Neither power may be exercised so as to destroy the other; the two clauses must be so construed as to give effect to each. Valid contracts to repay money borrowed cannot be destroyed by exercising power under the coinage provision. The majority seem to hold that the resolution of June 5th did not affect the gold clauses in bonds of the United States.

Nevertheless we are told that no damage resulted to the holder now before us through the refusal to pay one of them in gold coin of the kind designated or its equivalent.

This amounts to a declaration that the government may give with one hand and take away with the other. Default is thus made both easy and safe!

Congress brought about the conditions in respect of gold which existed when the obligation matured. Having made payment in this metal impossible the government cannot defend by saying that if the obligation had been met the creditor could not have retained the gold; consequently he suffered no damage because of the non-delivery. Obligations cannot be legally avoided by prohibiting the creditor from receiving the thing promised.

Counsel for the government and railway companies asserted with emphasis that incalculable financial disaster would follow refusal to uphold, as authorized by the Constitution, impairment and repudiation of private obligations and public debts.

Their forecast is discredited by manifest exaggeration.

But, whatever may be the situation now confronting us, it is the outcome of attempts to destroy lawful undertakings by legislative action; and this we think the Court should disapprove in no uncertain terms.

Under the challenged statutes it is said the United States have realized profits amounting to $2,800,000,000.

But this assumes that gain may be generated by legislative fiat. To such counterfeit profits there would be no limit; with each new debasement of the dollar they would expand. Two billions might be ballooned indefinitely — to 20, 30, or what you will.

Loss of reputation for honorable dealing will bring us unending humiliation; the impending legal and moral chaos is appalling.

IV. PRESIDENT'S MESSAGE OF JUNE 27, 1935

Because of the fact that a number of suits were soon brought against the United States by holders of government bonds who believed that they could prove damage, President Roosevelt, on June 27, 1935, sent a message to Congress asking that body to withdraw the consent of the government to be sued upon its currency or securities. Several paragraphs from the message follow:

Before the termination of this session of the Congress, I believe that it is important that definite action be taken to eliminate any uncertainty with respect to the right of holders of gold clause bonds of the government to sue for payment either in gold or else in legal tender with an additional sum of 69 cents on every dollar.

To this end, I urge the withdrawal by the United States of its consent to be sued upon its currency or securities.

The question of the effect of the so-called gold clause, in the light of the monetary legislation of the 73rd Congress, came before the Supreme Court at the term just closed.

A suit for additional payment under existing circumstances, the court said, would "constitute not a recoupment of loss in any proper sense but an unjustified enrichment."

[Bonds of the United States containing gold clauses — all of them issued, sold and payable wholly within the United States — have been continuously quoted on the exchanges at no higher prices than bonds not containing such clauses. But the continuing possibility of actions by litigious persons leaves open the continuing possibility of speculation.]

There is no public interest, under these conditions, in permitting a handful of private litigants to exploit the general public in the hope of a wholly speculative private profit.

This conclusion will hold so long as the Congress adheres to its declared policy, now more than a third of a century old, to maintain the equal value of every dollar in the market.

I recommend, therefore, the enactment of legislation which will make clear that it is our fixed policy to continue to treat the bondholders of all our securities equally and uniformly, to afford any holder of any gold clause security, who thinks he could by any possibility sustain any loss in the future, an opportunity to put himself immediately in a position to avoid such future loss, and to remove all possibility of any suits designed

to hamper the government in administering the public debt and in financing its ordinary and emergency expenditures.

There is no Constitutional or inherent right to sue the government. On the contrary, the immunity of the sovereign from suit is a principle of universal acceptance, and permission to bring such suits is an act of grace, which, with us, may be granted or withheld by the Congress.

The courts, it is hardly necessary for me to add, will always be open to those who seek justice, but they were not established for use by a few to enrich themselves at the expense of the many, nor to enable a few to harass and embarrass sovereign action by the government when taken for the benefit of all.

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