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**THE SEARCH
FOR FINANCIAL SECURITY**

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FOR FINANCIAL
SECURITY

ROBERT B. WARREN



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EDITOR'S PREFACE

WITH THE passage of time, great and significant changes have occurred in the political and economic arrangements of mankind. Social relationships have become more complex. In part, because of this complexity, careful work in the social sciences has made it increasingly necessary for scholars to interest themselves in minutiae. Monographs of scholarly merit but of limited social significance have characterized the literature. In economics, especially, there appears to be need for a convenient means of synthesis.

While social relationships have become more complex, the rate at which they are changing has accelerated. The world at large appears to be in a state of rapid transition, and economic institutions are no exception to this sweeping movement. No one can hope to understand the significance of change in its entirety; but intelligent minds aspire to see large situations as a whole and in relation to each other. In the words of William Fielding Ogburn and Alexander Goldenweiser (*The Social Sciences and Their Interrelations*):

The increasing specialization in the social sciences has been accompanied by greater ignorance as well as by greater knowledge. This handicap has been especially felt because the rapidity of social change in recent years has made it difficult for branches of knowledge in the social sciences to remain within the bounds prescribed under earlier situations. Furthermore, with the rise of the modern emphasis on social research, it has been found that many problems lie in several different fields and that their solution demands methods from the various social sciences. The increasing specialization also

is part of the great accumulation process in social knowledge. This accumulation process is so great that it has become exceedingly difficult for any one individual to become well oriented in the general field of the social sciences.

The Department of Economics of Columbia University has felt that distinguished scholars would welcome an opportunity to summarize the recent work in their respective fields and to relate this work to other phases of the social sciences. Students in the universities and in the world of daily affairs can gain much from the provision of such summaries. It is with these purposes in mind that a series of lectures on the economics of public policy has been incorporated in the curriculum of the Summer Session of Columbia University.

Men and women outstanding in their respective fields were invited to present groups of concise lectures. These lectures represent the efforts of advanced scholars to summarize the recent contributions which they and others have made. These ideas are significant in the shaping of public policy. At the same time, the development of public policy is significant to the course of economic thought.

The 1940 lectures, which treat of both phases of this inter-relationship, are now published by Columbia University Press as follows:

Public Utilities and the National Power Policies, by James C.

Bonbright

The Pattern of Competition, by Walton H. Hamilton

Taxation and Fiscal Policy, by Mabel Newcomer

The Search for Financial Security, by Robert B. Warren

Labor and the State, by Leo Wolman

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Columbia University

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I

MONEY

AT CERTAIN TIMES a single word is the epitome of an epoch. A single word casts a light upon events which without it appear but as shapeless shadows; and in this light they take on form and order. This word sums up the hopes, the ideals, the aspirations of a country and of a time. Such a word becomes almost a creed in itself. In November, 1793, the French Revolution enthroned in Notre Dame the Goddess of Reason. The Goddess of Liberty stands watch over New York harbor. No one has ever erected in America a statue to the Goddess of Opportunity; but most of us have practiced her cult, and by the slogan "America spells Opportunity" recognized the blessed word that summed up the hopes, the ideals and the aspirations of a country and of a time. More recently we have added a fourth Goddess to this Pantheon—the Goddess of Security. As we look back over recent years, it is astonishing how frequently this word has actually occurred in legislation; even more frequently the idea has formed the basis of legislative and administrative enactments in which the word does not specifically occur.

The following chapters will discuss recent developments of our money and banking system and relate them to this central theme. The general subject of money and banking, the related topics of credit, capital and interest, and the institutions

through which these abstractions become part of economic life present many aspects. This study has neither time nor space to discuss all of these; and in focusing on the theme of "security" it will be necessary to omit many considerations of value and importance for the purpose of emphasizing the one selected as the dominant motif.

The method to be employed is simple—proceeding from the idea to the institution. The first chapter offers a description of the nature of our money; the second, of the institution which operates our money system; the third undertakes an analysis of the ideas of credit, capital and interest; the fourth, of certain institutions which give reality to those ideas; the fifth presents some general observations and methods by which our society has attempted by legislation and by practice to direct these abstractions and these institutions in such a way as to guard them against the hazards discovered in the past in its long search for security.

Descriptions and illustrations will be drawn from the American experience. It must not be supposed, however, that our experience has been unique nor our innovations peculiar, except in detail. To a great degree, they have been duplicated in other countries. Even a world which thinks it has gone autarchic, and which at this moment is divided by war, cannot escape from the fact that it is a world; that it is populated by beings who have common tribulations, face common risks, and who are prone to seek common remedies. Even this war itself, by its very bitterness, shows itself to be a civil war. While in this discussion we shall confine ourselves to a description of American experience, it would require but relatively simple editing to fit it to England, France, Germany, and Italy.

The United States entered the closing years of the twenties with an extremely complicated money system. As was common in contemporary financial economics, this money system was a dualism, composed of currency and bank deposits. Beside the

token coinage of silver, nickel and copper, there were no less than five different kinds of paper in general circulation. Each of these had been created under its own legislation, and its issue was subject to distinct sets of requirements. All were legal tender, but not all were "lawful money"—a curious legalistic freak peculiar to America. As far as the public was concerned, all these five kinds were interchangeable with each other, and all were exchangeable for gold coin, which existed, but was not in actual circulation. Gold coin had ceased to circulate because of its inconvenience. People whose wallets are designed to carry paper money must carry gold coins loose in their pockets, where they may be easily mistaken for small change.

While all this currency was exchangeable for gold, specific provision had been made for redeeming only two of the five kinds. The reserve of one was kept by the Treasury, the reserve of the other by the Reserve banks. That is, from the standpoint of convertibility, two kinds of our currency were technically better than the other three kinds; and the reserve, instead of being mobilized under a single responsibility was divided under two responsibilities, operating under different legislative powers. While this system was complex, it was viewed with the equanimity of habit. We were accustomed to it. Furthermore, for a long period of time our gold stock had been increasing; and indeed through the twenties the "gold problem" was believed to be the problem of too much gold. While this currency system was complex, the habits of the population, our persistent favorable balance of payments, and the increasing amplitude of our gold stock combined to give assurance that the convertibility of our currency into gold coin could be maintained under almost any imaginable circumstances.

This concept of convertibility was the very cornerstone of our monetary thinking. Both fact and legislation had provided us with monetary security, according to the criteria of the period. In monetary affairs legislation as well as formal doctrine

commonly lag behind the changes of economic society. The elaborate emphasis on, and provision for, the convertibility of currency into gold coin are in contrast with a relative lack of emphasis on, or provision for, the convertibility of the bank deposit into currency. In fact, prior to the enactment of the Federal Reserve Act in 1913, no formal legal provision had been made. In the original Federal Reserve legislation, provision was indeed made for the convertibility of bank deposits into currency; but it was then regarded more as a seasonal or local contingency than a primary monetary problem. One can explain this on the theory that the bank deposit as a common form of money, or as the largest form of money, was so recent that legislation was but partially aware of the problem of convertibility that it had created.

At all events, beside the interchangeability of five different kinds of paper money and their convertibility into gold, our system assumed the two-way interchangeability of bank deposits and currency. Ordinarily in any given bank, the interchangeability of currency and deposits is a routine matter. Day in and day out one customer deposits currency and another draws out currency. This routine of interchangeability fluctuates from season to season, from year to year, and may at any time be interrupted by non-routine demands of an adventitious or critical character.

There is a third kind of convertibility that forms an integral part of our money system; and one likely to be overlooked, because all the action, so to speak, takes place behind the scenes. This is the convertibility of a deposit in one bank into a deposit in, or currency drawn from, another bank whether in the same city or in a city miles away at the other end of the country. It is not necessary to describe the intricate mechanism that makes this possible; but the fact that it is so common, so much taken for granted, is likely to make the depositor forget that an elaborate and intricate mechanism is involved. While the

mechanism is intricate, the process of moving a deposit from one bank to another is not basically different from that of presenting a check drawn on a bank in which we have a deposit and receiving currency from the same bank. In each case, the bank on which the check is drawn is required to surrender cash—whether to the individual or to another bank.

Bank cash is a rather odd subject to describe. In the first place it is not cash, and in the second it is not in the bank. In the twenties banks kept very little currency on hand. Their so-called reserve, consisting of deposits with Federal Reserve banks or with large city correspondents, was by law required to be maintained at a certain fraction of their deposits—it must remain intact. Under routine circumstances this system worked smoothly—for cash came in as fast as it went out. But in an emergency—that is, when the public was not following its usual routine, when it wanted more currency than usual,—or when it was apprehensive not only that currency might prove a safer kind of money than a deposit, or that a deposit in a large city bank might be safer than one in a small town or country bank, other mechanisms came into play.

Legislation provided the methods of making cash available to banks that needed it. Banks that needed cash could get it, one way or another, from banks that had cash. In the last analysis that meant that they could borrow from the Reserve banks, provided they had satisfactory collateral—legally termed eligible paper; and the Reserve banks could issue currency, under the provisions of the law, up to the equivalent value of the eligible paper offered to them.

This introduces still another question related to the problem of convertibility. We have already mentioned that in the twenties there were five kinds of paper currency in circulation, all interconvertible, although by the criteria of the time, two kinds were better than the other three. We also had two kinds of banks. While, as was said above, the problem of the con-

vertibility of the bank deposit into currency was never too clearly recognized, the fact remained that we had one kind of bank which was more prepared to convert its deposits into currency, and another kind of bank which was less prepared. In other words, in the twenties we had five kinds of paper currency of varying degrees of "goodness," if we accept the criterion of convertibility of paper into gold coin; and we had two kinds of banks, one better than the other, if we accept the criterion of convertibility of deposits into currency. There are, of course, many criteria that may be applied to banking—but here we are concerned with only one—the criterion of the convertibility of deposits into cash, which is the *monetary* criterion of the bank deposit. No one would claim that in the twenties all banks that were members of the Federal Reserve System were good, or all those that were not, were bad; but by this fundamental criterion of the integrity of a dualistic money system, the member banks were better prepared than the non-member banks. The greatest defect of our monetary system of the twenties was its inadequate provision for the problem of insuring comprehensive, nation-wide convertibility of bank deposits.

It was an unhappy thought that sugar-coated the crisis of 1933 with the euphemistic term "banking holiday." This phrase has obscured the thinking of the American public as to what happened in 1933, and partly shifted blame to the banker which properly should have been shared by the banker, the legislator, and the economist. It is easy to be wise after the event; but the record shows pretty clearly that neither the banker, nor the economist, nor the legislator had completely appraised the problem of convertibility that had been developing in the banking system during the twenties nor anticipated the implication of the phrase all so freely and uncomprehendingly used—that the bank deposit had become the major element of our money system.

Our money system broke down at its most vulnerable point—the point of convertibility. The elaborate legalistic scheme which postulated five different kinds of paper money each issued under its own compartmented legislation, all interchangeable with each other, and all exchangeable for gold coin; the elaborate legalistic scheme of maintaining three separate gold reserves, one in the Reserve banks and two in the Treasury; the elaborate legalistic scheme under which deposits in 30,000 banks were supposedly exchangeable with each other and convertible into currency; the elaborate legalistic scheme under which the Reserve banks could provide cash directly only for their members (which were fewer than one-third of the banks of the country) and only against rigid legal provisions—this entire scheme of hypothetical convertibility and interconvertibility that was the essence of our money system collapsed. The system itself was too complex; and our currency legislation had, with all its infinite attention to details, failed to appreciate the nature and magnitude of the central problem of convertibility in such a money system.

The collapse of our currency system in 1933 focused attention upon the specific economic hazards associated with the problem of convertibility. Our legislation promptly undertook to provide security against those specific hazards. This legislation did not take the form of a single, integrated currency, or monetary act; it is scattered through a number of items of legislation. But those elements which bear on the vital concept of convertibility may easily be summarized.

1. Gold coinage was suspended; and, except for token coins, our currency now consists exclusively of paper, inconvertible into gold.

2. Our paper currency was simplified. The gold certificates and the National Bank notes have been withdrawn, leaving three types in use instead of five—Federal Reserve notes, silver certificates, and the small closed issue of greenbacks. While

each of these is issued under different legislation—two kinds being issued by the Treasury and one by the Reserve banks—none possesses any quality making it more desirable than another. Their interchangeability seems absolutely assured.

3. The definition of eligible paper was extended to any sound asset of any bank whether a member of the Reserve system or not. Hence all banks have access to the Reserve banks, and are able to keep their deposits convertible into cash to the extent of their sound assets.

4. The guarantee of bank deposits removes the incentive to participate in a run on a doubtful bank, or to shift small deposits from one bank to another believed to be safer.

5. Our gold stock, while still divided into two parts—so-called monetary gold and the Stabilization Fund—is lodged entirely in the Treasury and is therefore under a single control. But in the monetary sense, it is no longer a gold “reserve” since neither the holder of currency nor the holder of a deposit has an enforceable claim upon it.

Now it will be noticed that this discussion has not employed the words “sound” or “unsound,” “good” or “bad.” We have described a money system as it was and as it is, entirely with reference to a single quality—its integrity or unity in the sense of its interconvertibility or interexchangeability. This system was a dualism in the twenties as it still is today, consisting of currency and bank deposits subject to check. It would be absurd to say that one part of this dualism is more important than the other; for although by far the greater part of our money transactions is made through the use of checks drawn on deposits, in the last analysis the utility of the deposit resides in its convertibility into the every-day medium of exchange of the bread and butter transactions of daily life.

Furthermore, each part of this dualism is complex in itself. Our currency was a complex consisting of gold coin and five

kinds of paper money for which fairly adequate provision for convertibility had been made. Our deposit money system was a complex, consisting of deposits in member and non-member banks, with varying degrees of inadequacy of legal provision for assuring the convertibility of those deposits either into currency or into bank cash.

Our present currency system still consists of three different kinds of paper money; but the fact that none of these three is convertible into gold is in itself one method of maintaining their interconvertibility with each other. Our deposit system is still a complex. However, the interconvertibility of bank deposits for other deposits or currency is assured by means of the following methods: (1) the elimination of the restrictions applying to the issue of Federal Reserve notes; (2) the elimination of restricted definitions of eligible paper; (3) the provision giving non-member as well as member banks access to the Reserve banks.

There can be no greater mistake than to limit the monetary term "convertibility" solely to the relation of currency to gold coin. That is one form of convertibility which has had wide acceptance in the past, before the deposit became a major form of money. That particular problem of convertibility played but a minor part, and in retrospect mostly a legalistic part in the collapse of our money system in 1933. The monetary collapse of 1933 did not derive primarily from difficulties of maintaining the convertibility of our paper currency into gold, but from the difficulty of maintaining the convertibility of bank deposits into currency; and, perhaps even more, the difficulty of maintaining the interconvertibility of bank deposits, that is, of effecting the transfer of a deposit from one bank to another. It is by no means just to say that our money system as legislated in the twenties was no more than a fair weather system. Its provisions certainly provided a margin of security far

beyond the requirements of average daily routine. But events showed that it did not provide the margin of security required to weather the tempest of the early thirties.

It is probably true that all great convulsions in economics result less from the failure of the superstructure of form and legislation, than from a defect of the premise. The superstructure of our money system of the twenties rested on a simple premise: it was taken for granted that if provision were made for the convertibility of the currency into gold, all forms of internal convertibility would automatically follow. This premise proved to be false. From the standpoint of monetary economics, the collapse of 1933 derived from our inability to maintain the internal integrity of our money system.

Now, retrospectively, it would be recognized that the first obligation imposed on a money system is the maintenance of its internal unity or integrity—that a dollar in New York shall be a dollar in Chicago or San Francisco; and that the definition of a dollar is itself not only a matter of law but of fact, or rather that the law must conform to the fact. The elemental fact of our monetary system was and is its dualism, creating the necessity of maintaining its continuous interconvertibility. This concept of the integrity of the money system has never been formally stated in any of our monetary legislation; but the sum of our monetary legislation since 1933 is an expression of that concept. It is not, of course, the sole conceivable expression of that concept. Perhaps other formulae could have been found; others were proposed and rejected. However the simple facts are: (1) that the essential problem of any elaborate money system is the problem of integrity and convertibility; (2) that the definition of and provision for convertibility as applied in our pre-1933 monetary legislation proved too limited; (3) and that the definition of convertibility as applied in our post-1933 legislation is not only wider, but is apparently absolutely comprehensive.

With the change in the definition of convertibility, there has also come a change in the character of money to meet the wider definition. All paper currency is an evidence of debt, a promissory note, whether it is a Federal Reserve note, a United States note, or a silver certificate. On its face it has the superscription to the effect that the issuer "promises to pay to the bearer on demand"—promises to pay something. Formerly, it was a promise to pay gold or silver; our silver certificates still promise ambiguously to pay a dollar in silver—whatever that may mean. Our Federal Reserve notes still promise to pay gold, but since the fulfillment of this promise further promises a fine or imprisonment, the promise may be regarded as not too promising. In effect our entire currency system is composed of non-interest-bearing small loans to the Government, in which the fact of convenience or utility to the lender is a compensation for the absence of interest. The five dollar silver note in your pocket is evidence of the fact that you have lent to the Treasury five dollars, which it expended in purchasing silver. The ten dollar Federal Reserve note in your pocket is evidence of the fact that you have lent ten dollars to the Federal Reserve Bank, which the Federal Reserve in turn lent to the Treasury and which the latter expended in the purchase of gold. It is true that the Federal Reserve banks are authorized to issue their promissory notes against loans to other debtors than the Treasury. But characteristically, our paper money today is a circulating, non-interest bearing, small loan made directly or indirectly to the Treasury for a specific purpose, that is, the purchase of gold or silver; however, the lender has no enforceable claim on the metal bought with the money borrowed.

While our paper currency consists of non-interest bearing public debt, it should not be imagined that it is "printing press" money—that the Treasury meets its deficit by issuing currency. It is true that it is authorized by law, under certain circumstances, to do so; but in practice, the only public expenditure

met by the issue of currency is the Treasury expenditure for gold and silver. This practice, however, is subject to a good deal of misunderstanding. It is often stated that the Treasury (or the tax payer) is put to great expense by the gold or silver buying program. This is a complete misstatement—the gold and silver cost the Treasury nothing but the cost of printing its notes. Indeed, the gold purchases cost still less, for the Treasury pays for the bulk of its gold purchases by borrowing the necessary money from the Federal Reserve Bank without interest; and the Reserve banks support the cost of printing the necessary notes.

The paper currency of the United States, therefore, consists of non-interest bearing, non-maturing public debts, incurred for the purchases of gold and silver. The fact that the silver certificates represent money loaned for the purchase of silver, and the Federal Reserve notes, money loaned for the purchase of gold, does not in any way confer greater value or desirability upon one than upon the other. The silver certificate is a direct loan to the Treasury, and the Federal Reserve note an indirect loan also to the Treasury, but this distinction confers no advantage on one not shared by the other; and not shared by the United States note—the old greenback—representing a loan originally extended almost a century ago for the prosecution of the Civil War. Nor, if the Treasury decided to utilize its authority and meet next year's deficit by the issue of United States notes, would those notes have any quality or lack of quality not shared by the rest of our currency. As far as the public is concerned, one note would be neither more nor less desirable than another. The interchangeability of our paper currency is complete. It is entirely composed of non-interest bearing, non-maturing public debts.

But as was explained earlier, our money system is a dualism of currency and deposits, and one requisite of a dualistic money system is the perfect interchangeability of the two elements—

the deposit and the currency. By way of example, the banks of New York City hold deposits of approximately \$15,000,000,000; that is, they have borrowed about \$15,000,000,000 from the public or from other banks. At any time those depositors may decide to convert their deposits into currency, or to convert a deposit in their New York bank into a deposit in a bank in Chicago or St. Louis. The banks of New York will in the course of a day's business be called upon to convert a part of those deposits into cash, possibly a very large part. Less than \$100,000,000 dollars of currency are in their vaults to meet this possible demand for cash. That is, they have only about fifty cents in currency to pay off each \$150 of legitimate demands for currency. But that is scarcely even relevant to the story. Of the money they have borrowed from the public, they have re-lent about one-third to the United States Treasury directly, or to Federal agencies over the endorsement of the Treasury; they have deposited with the Federal Reserve banks more than another third, and the Reserve banks have re-lent all of this to the United States Treasury—mostly for the purpose of financing the purchase of gold. Of the remainder, hardly more than a quarter, almost the entire amount is in the form of corporate securities or loans which can in case of need be pledged at the Reserve bank and against which currency or bank cash can be borrowed. In other words, if for any reason every depositor in every New York bank wished to exercise full convertibility over his deposit tomorrow, the New York banks could meet that test. In the case of those banks, approximately three-fourths of their deposits are represented by direct or indirect loans to the United States Treasury. And what is true of the New York banks is substantially true of American banks in general.

It is a mathematical axiom that things equal to the same thing are equal to each other. All of our currency consists of public debt; and about three-fourths of our bank deposits like-

wise represent public debt. The perfect interconvertibility of our various types of currency and of our two kinds of money has been achieved by the fact that almost our whole money system—currency and deposits—consists of non-interest bearing public debt. There is no qualitative superiority of one form of money over the other; legally and actually the two are completely interconvertible.

The primary defect of our money system prior to 1933 was that, while it recognized and provided more or less adequately for the convertibility of currency into gold coin, it made but inadequate provision for the convertibility of the bank deposit into currency, and gave the latter a degree of security not fully shared by the former. Furthermore, the fact that some banks had direct access to the Federal Reserve banks and others did not, gave automatically a greater degree of security to deposits in member banks than to deposits in non-member banks; although the existing legislation limited this degree of security. One great change in our money system since 1933 is that while it has rejected the convertibility of currency into gold coin, it has made adequate provision for the convertibility of deposit money into currency, and has made currency and deposit money equal in security.

Our money system as it existed prior to 1933 was gravely defective in one major particular. Its defectiveness was demonstrated in the years of depression. Legislative and administrative action has remedied this specific defect—namely, the economic insecurity deriving from imperfect convertibility of the two elemental parts of a dual money system. By removing this specific defect we have achieved complete security against a demonstrated insecurity latent in our pre-1933 money system. Prior to 1933 we had the monetary security that went with convertibility of currency into gold coin, and the monetary insecurity that went with imperfect convertibility of deposits into currency. Since 1933 we have lost the security that went

with the convertibility of currency into gold coin, and have gained the security that comes with the perfect interconvertibility of currency and bank deposits because both represent the same thing—non-interest bearing public debt. Prior to 1933 we had one kind of security, and found that the price of that kind of security was insecurity of a different order. Now we have another kind of security, and this obviously has a certain social and economic value. But it may be stated as axiomatic that this kind of security also has a price. Some of its costs still lie in the sphere of conjecture; others are already visible, and these will be explored in subsequent discussions.

II

THE BANKING BUSINESS

THE FIRST CHAPTER discussed the monetary aspect of banking—the bank deposit as part of the money system; recounted the difficulties experienced in the early thirties to keep our bank deposits interconvertible with currency; the failure of the attempt under existing conditions; and the subsequent legislative changes introduced to restore and maintain the integrity of a dual money system composed of both currency and deposits. This exhibits the monetary function of banking.

Commonly, we regard the issue of money as one of the functions of sovereignty. But in practice it is a function often delegated as when the Federal Government delegates the power of issuing notes to the Federal Reserve banks by specific legislation, or when by common consent, the public uses bank deposits as money, although of course a check is not legal tender or “lawful” money. It is less than a century ago that the check became a common medium of exchange in this country; and it is only during the last ten years that our legislation has taken realistic cognizance of this fact—so long has it taken legislation to catch up with changes in the money habits of the American public. It is often said that commercial banks are privately owned mints; and while this remark is usually made maliciously, it is not far from the truth if stated objectively and factually. The mint provides the public with one kind of money; commercial banks, privately owned, provide the public

with another kind of money. To a very limited degree, the post office, publicly owned, provides the public with a third kind of money, for occasionally postage stamps are used in lieu of currency, and persons without checking accounts often use postal money orders in place of checks or the mailing of actual currency. The commercial banks, like the mint, are instrumentalities of the money system, and extremely important agencies.

This money-providing function is not the sole function of banking. It is, so to speak, its public or quasi-official function. In addition, banking is a business. Like other businesses, banks render a service to the community for which they expect payment in proportion to the service rendered.

But banking is rather unlike other businesses in that for one of its principal services to the public it charges nothing. For the enormous service rendered by the banks of the United States as part of the money system, the banker neither receives a salary from the Government (like, for example, the employee of the mint) nor does he exact a charge for the service rendered, as does the post office when one buys a money order. It is true that there are some exceptions to this—as for instance the small fee charged by country banks for handling a check, or a service charge recently exacted by many banks for the privilege of drawing checks against small accounts. But on the whole one can say that bankers perform their monetary service to the community free of charge, and at no small cost to themselves. This free service is of relatively recent origin for not so long ago banks occasionally paid interest even on demand deposits—not very high interest, it is true, but still a payment. This was apparently a relic of the days when deposit banking was new, and people habitually kept their cash in a chest—another reminder of how the money habits of the public change. Just as deposit interest was influential in popularizing the use of deposit money, so service charges may discourage the popular

habit of using deposit money, and revive the more general use of currency—a development of which there is some evidence. We may sum up this phase or the relation of the banks to the money system by describing it as a public service rendered without charge to the public and at considerable cost to the banks. This is, in fact, not businesslike; and we must turn to the other side of the balance sheet for a discussion of banking as a business in itself, and of the relation of the banking business to other businesses.

The first concern of any business is to stay in business. That is, it must meet its obligations, it must pay its operating costs, it must accumulate reserves to pay for its routine mistakes, and theoretically, it must show some profit to those whose capital created the business. And all businesses must “keep up with the times” or go out of business. But banking differs from other business in one vital particular. It operates mostly with other people’s money; its own capital is not much more than a shoe-string margin. The problem of security against hazard—the problem of staying in business—is more acute in the banking business than in any other.

The business of a bank is to re-lend the money which its depositors lend to it. This is a very simple statement of a process which has changed its character rather frequently during the history of banking. In our own lifetime, we have seen three complete changes in the banking business. It would be difficult to find any single type of enterprise which has undergone more radical changes in its major business activity in so short a time.

At the present time banking statistics are decidedly good. They are, indeed, almost the best statistical data we possess. Unfortunately, their usefulness decreases with time for the following reason. The banking business is extremely complex and subject to continuous change; while bank reports, like other statistical data, are slow to change, and reporting forms, by their very nature, cannot be altered until after the need of change

has become convincingly evident. Sometimes the data can be reconstructed retrospectively for a time. But generally speaking, all statistical banking series are discontinuous, and never permit a complete review. We know that changes have taken place in banking practice, but we do not know as much about their evolution as we wish we did. The sum of these changes constitutes a trend, and the subsequent discussion will undertake to describe them retrospectively as constituting a pattern.

Standard works on banking published a generation ago stressed the fact that the banking business consisted of making loans to customers. These loans were made for a short specified period of time, commonly three months; some were repayable on demand. Banking theorists often defined lending practice in terms of the deposit—inasmuch as bank deposits were repayable on demand or short notice, bank assets should also consist of loans repayable on demand or short notice. This explanation was more schematic than representative. The merit of the short-term loan was not its analogy to the deposit, but because it was originally made only for a period of maximum economic visibility, at the end of which it was subject to repayment or reconsideration. Generally speaking these transaction loans were of two kinds: loans against the transaction itself, for example, the planting of a crop to be sold at the harvest—the so-called self-liquidating loan; or loans on which title to some negotiable value reinforced the transaction later proved unsuccessful—the so-called collateral loan. This security, a generation ago, was commonly real property.

While the term most commonly applied to this kind of business is “commercial banking,” the term “transactional banking” conveys a clearer idea. The loan was extended to a local customer against a specific transaction which usually was discussed by banker and borrower; and it was to the outcome of this transaction that the banker looked for the repayment of the loan. This is still the common form of banking in rural areas;

and while the banker may seek additional protection in the form of the borrower's general character or in specific collateral, the expectancy is that the transaction itself will repay the loan. These are the self-liquidating loans mentioned above. The disadvantage of this kind of banking, from the standpoint of the bank is that it is local, and consequently subject to local vicissitudes. Most neighborhoods are subject to local cycles not always related to general economic conditions, and the transactional banker has a great many eggs in the local basket. The banker's judgment may protect him against unfortunate individual loans; but in case the locality has a bad year, a large proportion of the loans may become unsound, and local collateral (like land), will hardly be better than the transaction it supplements. No matter what the character of the borrower, if his cattle die of disease or his crops wither from the drought, there is nothing a banker can do but wait. In such circumstances, the self-liquidating loan simply cannot be paid; or if paid, may ruin the customer. Intermediate or routine liquidity was provided by call loans on the New York stock market, and by investments in marketable securities. This kind of banking derived its security from the acumen of the individual banker. He sank or swam as best he could. This was the general system for which the Federal Reserve System was created in 1914; and (in passing) I think it is agreed that the original Federal Reserve Act was the most thoroughly studied, carefully deliberated, and painstakingly drafted item of legislation ever enacted by the United States Congress.

The consolidated statement of all member banks as of December 31, 1914,¹ is a statistical picture of this kind of banking. On that date the 8,000 member banks of the Federal Reserve System reported about \$6,500,000,000 of deposits (exclusive of interbank deposits) and the same amount of loans. Their capital and surplus was \$1,700,000,000 and their invest-

¹ Federal Reserve Board, *Annual Report*, 1923, p. 190.

ments a little over \$2,000,000,000; of these investments much less than half were United States securities, principally held to secure national bank notes. In other words, of total earning assets of \$8,500,000,000, about 75 percent consisted of loans; these loans were roughly equal to their deposits; and their investments were substantially equal to their capital funds. At that time one could accurately say that banking business consisted of lending to local customers the funds left with the banks by their local depositors.

When the Federal Reserve Act was passed, no one could have foreseen the War or the three great consequences that would come out of it to affect the banking business. These three results were (1) that the price level more than doubled, (2) that bank loans more than tripled, and (3) that the public debt rose from \$1,000,000,000 to \$25,000,000,000—all by 1920.

The statement at the end of 1920²—six years later—shows that about 9,600 member banks had about \$20,000,000,000 of deposits (excluding interbank deposits) and about the same amount of loans. Accordingly, loans and deposits had both trebled, but they had about the same relation to each other as at the end of 1914. The investments of these banks had likewise trebled from \$2,000,000,000 to \$6,000,000,000, while their capital had not even doubled, rising only from \$2,000,000,000 to \$3,000,000,000. About 80 percent of the banking business consisted of the making of loans. Only a minor part of these loans was against market securities—for the so-called Reporting Member banks, only one-third of the loans³ were against such collateral; the proportion in small city and rural banks would have been even lower.

By 1920, however, the factors of supply and demand had reversed. The war demand was gone, and supply formerly paralyzed by or devoted to war was increased. The price structure collapsed, and with it the whole pyramided fabric of trans-

² *Ibid.*, p. 191.

³ *Ibid.*, 1927, p. 112.

actions and transactional loans. A type of banking adapted to a stable or slowly moving price structure had proved too elastic for a steeply rising price level, and too rigid for one that fell abruptly. The transaction loan which had been the ideal of orthodox banking under a relatively steady price system had proved inflationary on a rising price level and deflationary on a falling one.

By 1921 our whole banking system was badly shaken; but it was saved by a paradox. It was saved by the fact that during the post-war years it had, by luck or foresight, apostatized from the orthodox, deserted its ideal. It had to a degree abandoned the tradition of transactional or "self-liquidating" loans. It was saved by its adaptability to changed economic environment. Although the above figures show that four-fifths of the banking business consisted of loans to business customers, and superficially suggest no major change, the fact is that a great change had probably been in progress. By the end of 1920,⁴ out of total earning assets of \$25,000,000,000 in all member banks, nearly half consisted of investments in marketable securities or of loans against more or less marketable security collateral. The proportion ran higher in city banks and lower in country banks, which accounts for the relative severity of banking troubles in rural areas. In 1914, the proportion had not been much above one-quarter. This change was considered of so little significance at the time that it is impossible to get precise data on it. But the implications were to be important. In 1914 three-fourths of the business of a bank consisted of lending money to customers; in 1920, this was still four-fifths of the business; but, while in 1914 the loans had mostly been against transactions, by 1920 the expansion of the collateral loan and of the bank investment had turned the dependence of the banking system, particularly in city banks, definitely from the business transaction to the security market. The evidence

⁴ *Ibid.*, p. 112.

shows that in pursuing this course the banks were increasing their own security. During those parlous war times, a loan secured by Liberty Bonds seemed safer than one not margined by marketable collateral. In their investments, the member banks had bought one Government bond for every corporate bond purchased between 1914 and 1920. And, looking at the record, it seems that the merit of this policy was demonstrated. If one goes by the record of the Reporting Member banks in the post-war deflation, it will be noted there was comparatively little decline in secured loans after the middle of 1920, while the liquidation of unsecured loans dragged on to the middle of 1922⁵—two years of anxiety for both borrower and lender.

The significant banking development of the war period was the increased reliance of banks upon values established in an organized security market, as contrasted with their former dependence on the transaction for which the customer borrowed. It was to the market that they had turned for both liquidity and solvency, and the record of 1921 suggests that those banks that placed their dependence on the market fared better than those that had depended on the local, self-liquidating transaction.

The post-war depression in the United States, while severe, was very brief. The election of 1920 was won with the slogan of "back to normalcy" but it never applied to the banking business. Transaction banking, which had been considered traditional and sound, never returned to its pre-war status in the banking field. Reliance on the transaction had proved insecure in the post-war crisis; reliance on the organized security market had proved more secure. This experience determined the shape of the banking business in its next phase.

While the term "transaction banking" is fairly descriptive of the banking business in this country prior to the World War, it is clear that by the end of the post-war depression, the term is

⁵ *Ibid.*, p. 112.

no longer applicable. But it is not easy to find a single word descriptive of the new form. The term "security banking" is fairly well suited in the sense that loans were largely made against stock market collateral, and that investments in marketable securities were relatively increased; but it is dangerous because of the duplex meaning of the word "security" as an abstract noun and as a concrete noun. The simple fact is that the vocabulary of banking has not kept up with the changes in banking practice.

In the memorable call report ⁶ of October, 1929, total earning assets of all member banks had risen to \$36,000,000,000—\$10,000,000,000 above the highest figure of 1920. But of these assets, \$26,000,000,000 were loans and \$10,000,000,000 investments, that is, only 70 percent of the banking business now consisted of loans. The investments, which in 1914 had only equaled the capital funds, had exceeded them by 50 percent in 1920, and remained in that ratio. Turning to the Reporting Member banks,⁷ loans were 30 percent higher than they had been in 1920, and the entire increase had come in the collateral loan—the loan secured by marketable stocks and bonds. The loans so secured, which in 1920 had been only half as great as the loans not so secured, were now nearly equal to them. The stake of the banks in the market which in 1914 had been about one-fourth of their earning assets, had risen to one-half in 1920, and in 1929 was in the vicinity of 60 percent. That is, the worth of almost two-thirds of their earning assets now depended not upon the self-liquidating transaction, but upon a market value.

The liquidity of the banking system at that moment seemed beyond the shadow of a question. With \$10,000,000,000 of investments marketable at a moment's notice and almost half the loans secured by collateral that could be sold at a moment's

⁶ *Ibid.*, 1929, p. 107.

⁷ *Ibid.*, p. 110.

notice, every individual bank in the United States was in an impregnable position. The development of the collateral loan had made the assurance of loan payment doubly safe; ⁸ the widened activity of the security markets gave banks the utmost in liquidity. Never up to that time in all American history had American banks been as prosperous, as solvent, or as liquid as they were on the call date of October 4, 1929. The hazard confronted in 1920 had been solved by the development of the secured loan; and the unsecured loans, only half of the total, were given liquidity by the holdings of an almost equal amount of negotiable securities saleable at a moment's notice. The banks were no longer dependent upon the risks of parochial conditions, local crops, or the business acumen of individual customers. From the perils and difficulties of 1920, they had discovered and achieved security. Twenty-six days later, every bank in the United States was to a greater or less degree, a problem bank. They had sought security in the market; in-

⁸ The phrase "doubly safe" is only partially true. The item "Loans on securities" included two categories, both called collateral loans. Strictly, a collateral loan is a transaction loan, rated as self-liquidating in itself, reinforced by the deposit of supplementary or collateral security. Such a loan is doubly secured. But in the twenties, in an uncertain proportion of so-called collateral loans, the "transaction" was the speculative purchase of the security deposited. Such loans are now separately itemized in the Reporting Member Bank statements as "loans for purchasing or carrying securities." When this distinction was made, certain transactional loans secured by collateral were transferred to the items "commercial, industrial, and agricultural loans." The item "loans on securities" as it appeared in the twenties cannot be broken into its components of speculative loans and true "collateral" loans. It is easy to understand the transition by which the acceptance of stock-market securities as "collateral" for transactional loans shifted into loans on the security itself, regardless of purpose. In the closing days of the New Era, the Federal Reserve Board discouraged the latter type of loan as a speculative (that is, illicit) use of bank credit; but with indifferent success. Retrospectively it appears that the action of the board (although as events showed, unsuccessful) was rather better than its reasoning. The use of bank credit for speculation is not prima facie either dangerous or illegal. This use of credit, however, proved disastrous, less because it was speculative than because it was concentrated and enormous. But it is only fair to recall that the greatest magnitudes were in "loans for the account of others," that is, made by banks as agents

dividually they would have found security in that market; but that market had collapsed.

In 1920 the banking business had concentrated its resources in assets whose validity depended upon a level of the commodity markets that had itself been created by a concentration of credit. In 1929 banking business had concentrated its resources in assets whose value depended upon a level of security markets that had itself been created by a concentration of credit. The danger of one had been demonstrated in the depression of 1921. The search for security from the hazards discovered in 1920 ended in a period of insecurity that culminated in the banking holiday of 1933. The identity of the danger had been hidden by the change in its form.

Between 1920 and 1929, the form and shape of banking changed more than its direction. In this period business itself was undergoing a great change in form as well as magnitude. The old forms—the proprietorship, the partnership, the “family enterprises”—were giving place to the corporation, with its securities listed in the market in the form of stocks and bonds. Furthermore, all the world was borrowing in our markets. The period from 1920 to 1929 was a period of immense demand for capital; and the national savings were not equal to the demand. To supply this difference between the national savings and the demand for capital, we borrowed from the banks; that is, these banks bought securities; but above all, individuals borrowed from banks in order to make larger investments than their savings would permit.

It is an easy slur to say that prior to 1920, the business of banking was the financing of business, and that from 1920 to 1929—the New Era—the business of banking was to finance

rather than as principals. Legally these loans were beyond the jurisdiction of the Federal Reserve Board or other bank supervisory agencies. Economic sequences pay scant respect to legal boundaries.

stock market speculation. Like most slurs, this would be a sort of half-truth. Actually, banking was financing American business, in a manner, which on the face and on the record, seemed to offer greater security, and was, or seemed to be, adapted to the requirements of American economy.

The needs of American economy had been changing. The standard of living in the United States has always postulated a multiplication of the individual's productive capacity, through the use of tools and mechanical power—consequently a heavy capital investment. It is perfect symbolism that has made the hammer and the sickle—the two minimum tools of manual labor—the emblem of the philosophy that opposes capitalism. But the hammer and the sickle were not emblems of the American economy in the New Era.

Also in that period, two new forms of power were just coming into use—electric power and the internal combustion engine. These were altering the character and location of industry and population more rapidly than the introduction of steam a century earlier. The funds that American economy needed (or thought it needed—but at any rate wanted, and used) were not transaction loans, but money it could put into plants and equipment. However, the funds thus wanted were beyond the savings (that is, the margin between the income and the standard of consumption) of the American people.

The perfect answer, or what passed as such, was the collateral loan. Through the collateral loan, the banking system furnished plant-and-equipment capital to American industry, but in the form of a demand loan against securities which could be liquidated at a moment's notice. Never was a banking system seemingly more liquid or more secure than our banking system in the early autumn of 1929. Each of these collateral loans was individually conservative, liquid, and secure, just as each of the transactional loans of 1920 had been liquid, conservative,

and secure. It was their mass and their concentration that made them collectively unliquid and insecure.

We come now to the bank call of December 30, 1939.⁹ Once again we have difficulty with terminology. By the end of 1939, the emphasis in American banking had shifted definitely from lending to investing. This preponderance would justify the descriptive term "investment banking"; but the term "investment banking" has been preëmpted by a special set of institutions whose function is the underwriting and marketing of securities—in short, whose function is neither investment nor banking. However, in the years between 1929 and 1939, banking business in the United States underwent another great change, and its function has definitely shifted from banking to investing. Member Bank Deposits (that is, time deposits plus demand deposits adjusted excluding interbank deposits) were about \$37,000,000,000—approximately 20 percent higher than in 1929; but total loans and investments of \$34,000,000,000 were a little lower than the \$36,000,000,000 of 1929. But—and here is the great change—loans of all kinds amounted to only \$14,000,000, about half of the \$26,000,000,000 of 1929; and investments at \$20,000,000,000 were three times as great. The making of loans which was 75 or 80 percent of the country's banking business in 1914 and 1920, and about 70 percent in 1929, was only 40 percent in 1939; in New York and Chicago it was no more than 30 percent. While investments have increased since 1929, holdings of corporate securities have declined by \$1,500,000,000; investments in Government (and guaranteed) securities, including those of local units have risen \$11,000,000,000.

In 1914 no more than 10 percent of the business of banking consisted of investments in Federal Government securities, and almost 90 percent of the banking business consisted of providing money for business enterprise; in 1939 half of the busi-

⁹ *Federal Reserve Bulletin*, Feb., 1940, pp. 132-33.

ness of the Member banks consisted of loans to the Government or investment in Government issues.¹⁰

Glancing again at the statement following the bank holiday, the figures show that while total loans and investments of all Member banks were about \$9,000,000,000 greater than in June, 1933,¹¹ loans to, and investments in business were no greater at the end of 1939 than at the nadir of the depression. The entire increase had come from purchases of public debt.

But this is not the whole story. In addition to their loans and investments, the banks had on deposit over \$11,000,000,000 with the Reserve banks. Of this amount, about half was their required "reserve"; the other half was merely a non-interest bearing loan to the Reserve banks, which in turn have lent it without interest to the Federal Treasury.

It is a saying that armies are always perfectly trained and equipped to fight a past war. The same thing may be said of banking. If we had had in 1907 the banking system of 1920, the panic of 1907 would have been but a minor ripple. If we had had in 1920 the banking system of 1929, the banking depression of 1920-21 would have been far less severe. If we had had in 1929 the banking system of today, that particular debacle would never have occurred. In its endless search for security, banking practice and banking legislation is always learning from its bitter experiences in the past, and setting up protections against a repetition of those particular experiences. The experience of 1929 drove home one great lesson—the

¹⁰ As follows:

Federal obligation	\$14,300,000,000
Guaranteed obligation	3,100,000,000
Political subdivisions	2,700,000,000
	<hr/>
	\$20,100,000,000

Loans amounted to \$14,000,000,000 and "other investments," \$3,000,000,000: total \$17,000,000,000. For New York City, the proportion of Government paper to other assets is even higher. *Federal Reserve Bulletin*, Sept., 1940, pp. 966 *et seq.*

¹¹ *Ibid.*, p. 966.

hazards of the security market. Specific legislation was provided against this. The Federal Reserve Board was given specific authority over collateral loans, even if made by institutions (banks and brokers) not otherwise under the jurisdiction of the Federal Reserve System. Against the hazards of the bond market, the banks undertook partly their own protection—they resolved to buy nothing but Government bonds. There was no legislation compelling them to take this course—it was dictated by prudence and experience. They not only have not added to their holdings of corporate bonds since 1929, they have reduced those holdings by one-third.

From the hazards disclosed by the experiences of 1907, our banking system sought security in the creation of the Federal Reserve System. Out of the experience of 1920, the banking system sought security in the market through the collateral loan, and through the purchase of marketable investments. Out of the experience of 1929, it has sought security in a concentration of investment in Government securities.

From this discussion it appears that there are two great problems in the banking business. One is its own security as a business, the other is the problem of adjusting itself to its economic environment. The banking business is an ancillary business—it is the servant, not the master of political economy. Between 1914 and 1920, its function was to finance production and trade during a great war. Between 1920 and 1929, its function was to finance production and trade during a great adjustment of plants, equipment, and population to electric power and the internal combustion engine. Recently its contribution to American economy has been the financing of a large part of the Federal deficit. In each period, it endeavored to perform this function with safety, taking such precautions as the experience of the past indicated as being necessary to provide this security.

Ideally, of course, the banking business would hit upon a perfect answer to its double problem. It would find a way to adapt itself perfectly to its functional position in the economy; and at the same time its method of functional adaptation would provide a maximum of security to its depositors, its customers, its shareholders, and the community generally.

In this discussion, we have shown that the banking system of 1939 has protected itself against every danger disclosed in the past. With half its assets in Government bonds, and with an absolutely free cash reserve of over \$5,000,000,000, it is actually in a position to pay off its depositors at a moment's notice. In fact, not even in the autumn of 1929 was our system so completely liquid, for a complete and adequate remedy has been provided against every contingency developed in the 1929-1933 experience.

But, as stated above, the banking business has two problems. One is security; the other is its adaptation to the needs of the economy and the time. We have said that our present system provides the utmost in security. We can say that it is adapted to the needs of our economy and our time, if we suppose that only the Government has had any need of banking service since 1933—for since then the sole active function of the banking business has been the financing of the Government.

But it must not be supposed for a moment that the erstwhile banking function has disappeared from our economy. It is present in a different shape or form. We have said that bank loans and corporate investments of \$14,000,000,000 were scarcely larger than in 1933; and by \$12,000,000,000 smaller than in 1929. But the consolidated statement of the "Governmental Corporations and Credit agencies" for the end of 1939 shows loans and investments of \$9,000,000,000. Nearly all of this has been added since 1933. In other words, the business of banking is the financing of the United States Treasury; this

in turn finances these governmental corporations and credit agencies which now conduct a large part of the banking business of the United States.

It is now quite clear that American banking is far advanced in a phase that cannot be very clearly outlined. It is not exactly true to say that banking has been nationalized. One could almost say that the commercial banks are one type of several "instrumentalities of the United States Government" now performing the banking function in our economy. Nothing illustrates this more completely than the spontaneous assumption that the Government would undertake the financing of the actual industrial operations incidental to the National Defense Program. The fact that the banks made haste to remind the Government and the public that they were still in business—and that they had to remind the public that they were still in business—shows the anomalous position into which they had fallen. The concentration of bank assets in Government securities satisfies certain criteria of banking. It provides a great measure of safety, and it is a method of insuring the convertibility of the bank deposits into currency. But in this process, the ancient banking business of lending to business enterprise has largely vanished. In part it has been taken over by the Government; in part, it just seems to have disappeared. The banks have achieved for themselves and for their depositors a maximum of security; but in this process they have largely gone out of the banking business.

III

CREDIT, CAPITAL, AND INTEREST

EARLIER chapters have considered money in the abstract sense of a medium of exchange, and banking as a business. In this chapter, we purpose to revert again to the abstract theme of money, and to consider it not as a medium of exchange but in its character as a medium of investment. In considering this use of money, this chapter will examine only a limited section of the field—the field of investment represented by debt. Indeed, the word “debt” might have been used as the title of this chapter with credit, capital, and interest taken as sub-heads representing three of the several aspects of debt.

Debt comprises two elements—the element of a promise, and the element of time. It is obvious that a great many financial transactions do not readily permit the debt pattern. The time element may be uncertain on either side; or the nature of the undertaking may be such that the participant furnishing the money may prefer a share in the venture to a specific promise. We are not concerned with such transactions, for by their character they are beyond the consideration of the banking business, and would therefore be irrelevant in this study.

On the other hand, certain financial transactions do permit the pattern of a loan, that is, of a specific promise to be performed within a specific time—a pattern that exactly suits the mutual desires of both the borrower who is planning the un-

dertaking and needs money to carry it through, and the individual or institution who has some money and no idea for its use.

But between these two extremes—the transactions that clearly do not permit a promise to be executed within a specified time and those that probably do—there is a great twilight zone, in which the would-be borrower is perfectly willing to make the promise and the would-be lender is more or less sceptical of its fulfillment. The question presently appears as to what proportion of all the financial transactions under consideration permit the form of debt. No quality so distinguishes the human race from the rest of the animal kingdom as optimism; and probably no quality has been so conducive to its progress. The human being who believes he has a good idea is always ready to back that idea with money—even with other people's money. To obtain this money, he is quite honestly prepared to make promises; and apparently persons with money at their command are inclined to accept such promises. Hence, the antiquity of debt.

At different times all sorts of different protective devices have been thrown up around the institution of debt. Everyone is familiar with the provisions for the periodical extinction of debt imposed by the Mosaic code and very likely borrowed from Egyptian legislation; everyone knows the generic prohibitions against debt in canon law; in modern times such arbitrary limitations as those imposed by statute on the public debt of the United States; functional limitations on the magnitudes of municipal debt; limitations on the debt that can be placed against real property in the form of mortgages, and many others. Debt is as old as organized society—as an institution it is far older than money. The oldest clay tablets excavated in the Euphrates Valley mention debt and indicate that even in those pre-monetary days—hundreds of years before the invention of money—legislation concerned itself with the

ancient problem of protecting mankind from its optimism, while at the same time endeavoring to secure for society the tangible benefits of that optimism. Throughout most of recorded history, society has been disposed to recognize the economic utility of debt, but it has also had a certain fear of debt as an economic institution, and has expressed that fear by legislation and convention. But it must also never be entirely forgotten that over considerable periods and over wide areas, society has had such a fear of debt that both the lending and borrowing of money has been regarded not as an economic utility, but as so undesirable socially as to be positively sinful. The society of medieval Europe held such a view; and the canon law of Islam took the same position.

In other words, society through the ages has either regarded debt as a positive evil or as a dubious good—socially tolerated within prescribed limits. It remained for the nineteenth and particularly the twentieth century to arrive at the conclusion that debt was economically and socially a positive good, to be encouraged by the exhortation of statesmen and stimulated by public advertisements. Debt—the very word once reeked of fire and brimstone—has now achieved an odor of sanctity; and is the very cornerstone of our society.

While one element of debt is the promise to repay, the other element is the time over which the debt is to run. A certain type of transaction may be initiated, matured, and completed within a brief period. For example, a farmer plants, cultivates, harvests, and sells his crop in a season. The merchant buys his seasonal stock, and sells it; the manufacturer buys his raw material, fabricates it, and sells the finished product. All these are transactions taking a calculable time—commonly three months. Countless experiences over a long period of time have shown that such transactions can be financed by loans, that is, by promises to repay at a specified nearby time.

But a far larger proportion of undertakings require a much

longer time. The business life of a complex financial economy cannot exist exclusively on the basis of short-term loans. The sums expended in building a house, a factory, or a railroad cannot be repaid in three months. These represent a transaction which can "pay out" only over a long period of time; that is, the very nature of the investment presupposes a time element measured in years, not in months. But the mere time interval carries certain implications—that it will consist of good years as well as bad ones, that the project itself, which seemed hopeful at the beginning will have its ups and downs, and perhaps finally terminate in loss. Its sponsors, who may be persons of general solvency today, may within five or ten years come to financial straits. Time itself has introduced an element of the incalculable into the transaction; and the funds so invested must accept not only the time element, but the element of incalculability that is implicit in time.

In a sense, time is the enemy of promise, and the effort to reconcile the two has profoundly affected the form of debt. It has created what is a kind of anomaly—the long-term promise, or bond. It has been more or less clearly recognized that while the validity of a promise diminishes in proportion to the time between promise and prospective fulfillment, in certain cases a modest promise may hold good over an extended period of time. While, as was said above, a transaction loan made for a three-month period is almost sure to be valid, a promise to repay three years from date is more dubious, and a promise to repay thirty years from date introduces elements of the improbable. Not only is the economic status of the borrower certain to change for better or worse over such a period, but the original physical assets pledged or mortgaged as security for the promise will have practically disappeared. This may seem like a strong statement, but it may be illustrated. On any railroad or in any factory, comparatively little of the actual physical plant is thirty years old. A process of continuous

replacement is always going on. If the process of replacement is not continuous, the property wears out or loses its value through obsolescence almost as completely as if it had vanished from physical view. The question of the physical maintenance of value over a three-month period arises only in the form of destruction, as the phrase goes, "by an act of God or the King's enemies." Over a three-year period the question becomes inherent, but not critical; over a thirty-year period, a dozen factors unforeseen at the moment the promise was made have become operative. An unexpected series of "bad years," unexpected technical changes, the death of gifted executives, may impair the validity of the promise. Nevertheless, if the promise was itself modest, it may still be fulfilled.

Two generalizations follow from this description: (1) that although many transactions justify borrowing against a promise to repay in three months, few can give convincing assurances to repay in three years, and very few indeed are able to present a future so unclouded that they can persuade anyone to lend them money for thirty years; (2) the relation of the loan to the value pledged diminishes with the time element of the promise.

While short-term and long-term debt are both older than money and banking, banking grew up around the idea of short-term debt. The bulk of the funds of which a bank disposes are borrowed from depositors upon the promise to return on demand or at comparatively short notice a sum equal to the amount deposited. Bookkeeping requirements, in turn, urge the bank to make the same conditions for its borrowers. This fact of bookkeeping then provides one definition of bank credit—that it take the form of a promise, which for a time will be approximately that of the liability set against it. As a theory this has the plausibility of analogy to recommend it. A considerable number of business transactions can be undertaken, completed, and liquidated within a calculable time on bor-

rowed money; but no business transaction can be undertaken on the basis of a loan seriously considered as repayable on demand. The only type of transaction that is suited to this requirement is the stock market call loan; and even this was possible only because of the mechanism, not of repayment, but for shifting this loan from one lender to another. This mechanism was so perfect that for many years the banking system of the United States maintained its liquidity (that is, its capacity to meet the demands of its depositors) principally with the aid of the New York call market. Over a long period of time banks accepted deposits payable on demand or short notice, and made business loans repayable on a specific nearby date and stock market loans repayable on demand. With occasional minor hitches and major panics, this system worked, like most systems, after a fashion. Bank credit came to be identified with short-term loans to business and call loans to Wall Street.

But quite apart from the insistence on the correspondence of the time element, there was a stronger reason for associating the idea of bank credit with time. As was said in an earlier discussion, business loans were commonly made against a specific transaction. In this circumstance time is a vital element. The transaction was undertaken and completed, with a profit or loss; but if with a loss, the loss in a short time was not likely to run to staggering proportions. The worst that could happen was that the deal financed by the credit had not turned out as well as had been hoped. Furthermore, a generally solvent borrower does not suddenly become insolvent in normal times. Within a period a business borrower may continue to do well, or his business may decline; but he will not become bankrupt. There were, therefore, solid reasons for insisting that bank loans should be short-term; just as there were and are solid reasons for insisting that loans for the more jumpy business of carrying securities on margin should be payable on demand. For these reasons the definition of bank credit as taking invariably

the form of a promise to repay the exact sum borrowed, and the insistence upon the short-time element is easily understood.

While in a modest way long-term debt—for instance in the form of the five-year or seven-year mortgage—has been known from the beginning of time, in its present form it has only a brief history. Indeed, except in the form of public debt (and the public debt system is scarcely over 250 years old) it is mostly a phenomenon of the past fifty or seventy-five years. The reasons are obvious. The long-term loan presumes a borrower with a life expectancy at least equal to the maturity of the loan, and this type of borrower (other than the State) did not exist prior to the creation and dissemination of the corporate form of enterprise. Having no soul to be damned, the corporation is endowed with earthly immortality and therefore capable of making longer promises than the individual entrepreneur. The corporate form of enterprise created the potential long-term borrower.

But the lender must also be considered. Not many lenders are either able or willing to lend money against a promise of repayment in thirty years, or even three years. A bank obviously cannot seriously entertain such a categorical proposition, no matter how persuasive the promise, or how liberal the margin. Few individuals are so sure either of their judgment or of their own future to be able to consider it.

The answer to this dilemma is, of course, the market. By the mechanism of the market, the lender can terminate his relation with the borrower at will. As far as he is concerned, the thirty-year bond is, in fact, a call loan. The lender may be motivated by any one of many reasons to terminate his relation—he may have lost faith in the promise, or he may merely have changed his attitude toward time, and want his money back now rather than at the end of thirty years. The important point is that the idea of long-term debt also presupposes a market. Given the existence of a market, the long-term bond assumes a form

which brings it within the scope of banking; but at the same time, it introduces a factor of new complications. As we said above, a bank having pledged itself to repay stated sums to its depositors, can invest these deposits only on promises of repayment. And because the bank has promised to repay on demand or at short notice, the promises in which it invests must likewise be capable of realization on demand or short notice. The long-term bond is a promise in a form which suits the books of the bank, and the market brings in the time element not of repayment, but of realization that suits the books of the bank. The complication arises from the fluctuations in the market appraisal of the promise. In the Great Depression this became a very serious fact.

The advantage of a market is that it is always available to lenders or would-be lenders. Accordingly, if a bank or individual has money and wishes to lend it, he can always find a borrower in the market. Conversely, if a bank or an individual wishes to stop being a lender, he can always find in the market someone to take the loan off his hands and pay cash for it. It becomes difficult, however, when a great many people want to do the same thing at the same time. If a great many banks and individuals have money and wish to lend it in the market, the market rises; but if very many lenders suddenly wish to withdraw their money from the market, it falls. According to statistics, however, during most of the period from 1900 to 1930—that is, within the memory of a generation—fluctuations in very high grade, long-time promises were comparatively small.

The utility of such an investment to a bank is obvious. Most banks are local institutions, situated in comparatively small communities. Such communities, if agricultural, are usually heavily dependent on a predominant crop; if industrial, upon a predominant industry, perhaps a single concern. A bank, particularly a 1914 or 1920 type of bank, whose business

principally consisted of loans, made those loans locally. As long as local conditions were good, those loans were safe; but if local conditions were bad, the most prudent and well-advised loans became difficult. Often these local conditions were quite independent of national conditions. It was, therefore, of the highest importance that a bank which had, let us say, 80 percent of its funds in local loans, should have the other 20 percent in some form that was not subject to local conditions. It could, for example, keep some cash—but banks like other forms of business, must consider earnings. It could put money in the New York call market; but the call rate was always irregular, and usually low. The bond market provided the answer. In form, the investment in bonds was the setting of a promise against a promise; the bond could be sold at need; and the record showed that while it could not invariably be sold for what it cost, it could be sold for a sum not far away. Above all, it was not subject to the vicissitudes of the locality. It was this feature that caused banks to regard their bond holdings as a reserve—and even to call them by that name—a protection against the purely local hazards that might beset their local loans.

As we have seen in the previous discussion, prior to 1914 the banks did not hold large investment portfolios. Apart from the holding of Government securities, which under the National Bank System occupied a peculiar position, bank investments were only about 15 percent of total loans and investments—the sum approximating their time deposits and actually less than their own capital funds. Their ratios rose materially during the war period, largely as a consequence of war financing. In the subsequent deflation, the large portfolio of Government securities served the function for which it was more or less designed. Banks needing cash could discount their Government securities or sell them in the market, and to that extent not only maintained their liquidity, but relieved pres-

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sure on their customers. Nevertheless, it is important to note that it was the war financing of 1917-20 that first brought the banks actively into the long-term loan market.

From this analysis the conclusion may be drawn that the short-term loan is quite different in character from the long-term loan; and the whole idea of the long-term loan (except to Government) is a concept which depended on the development of the corporate form of enterprise and of markets—both of very recent appearance in economic history; and that the reasons confining the banks to the short-term market were logical in theory and persuasive in practice. Hence, we arrive at the conventional definition of credit as a short-term loan extended by a bank to industry; and of capital as a long-term loan to industry or an investment in it, usually by an entity other than a bank. In other words, credit is associated primarily with banks, and capital with markets in which banks were formerly only one participant among many, and not a very large or important participant at that.

But there is a qualitative consideration to be taken into account. The money lent by banks is another kind of money from that lent by individuals, individually or collectively. If we call bank-money credit, and individual money, capital, we clarify the fact that credit and capital are two different kinds of money.

An individual must save before he can invest, that is, he can only save the difference between his income and his cost of living. To save a penny, he must go without the candy the penny would buy; to save \$50, he must go without another suit of clothes; to save \$1,000 he must reduce his potential personal or family consumption by \$1,000. This process of saving reduces the demand for consumer goods by the amount saved. But when the abstemious individual accumulates \$1,000, by doing without candy and more resplendent garments, and invests it in a bond, he has made that amount available to a borrower who intends to erect a new factory possibly for the

manufacture of candy or clothing. By this process he has reduced the immediate demand for consumer goods, and increased the demand for capital goods, namely, the bricks, cement, and machinery needed for the construction of the factory. He has neither reduced nor increased the total demand for goods; he has not reduced or increased the national money income. But he has done something more than that; he has increased the capacity of the country to produce more and better candy at a cheaper price. For the period of his saving he made himself, as an individual, poorer than he might have been in order that the country might be richer. For this contribution he receives a piece of paper promising to return his \$1,000, let us say, after thirty years, and interest of \$30, \$40, or \$50 for the period of his waiting. The interest rate on capital is its cost of production, that is, the amount that must be paid as an incentive, or as a compensation for sacrifice.

The production of bank credit is entirely different. It is essentially a mechanical process. It is not necessary for the bank to abstain from consumer goods, in order to provide funds for capital goods. It either has unused funds, or it has not. If it has unused funds, those funds did not derive from its own action or even its own volition; it was endowed with them, either by fortuitous gold imports or as a consequence of action by the Federal Reserve Board or the Treasury. If it has them, it can use them. The funds so provided and so used are not the result of saving, of going without something; they are a pure creation of the monetary machine. Formerly the supply of bank credit was rigidly limited. Now it is limited or unlimited as the consequence of management.

Bank credit, too, has a cost of production; but this cost is very different from that of inducing the individual to save capital. The production cost of credit is the cost of operating the bank as a business concern, including allowance for losses and interest paid to depositors. Nothing more clearly illus-

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trates the qualitative difference between credit and savings than a clear definition of what in both cases was called the interest rate. The interest rate, as that word is applied to savings, is the rate of return required to induce the individual to sacrifice his immediate desires as a consumer in order to become an investor. The interest rate as applied to bank credit is the cost of running the bank. The two concepts are utterly unlike, although called by an identical name.

When banks paid interest on deposits, the basic interest rate—the production cost of credit—seems to have been much higher than the incentive rate for savings. In fact, the interest rate on first class capital issues was considerably lower than the rate available on loans, and not higher than the prevailing rate on first class commercial paper—the best type of transaction banking. Under such circumstances banks had no reason to enter the capital market at all, except that of increasing their security by obtaining a marketable asset not likely to be affected by the vicissitudes of the locality.

But in recent years all this has changed. Interest on demand deposits was abolished by law, and reduced on time deposits almost to the vanishing point. Under these circumstances, the bank interest rate dropped sharply. With almost no deposit charges, the bank rate of interest became no more than the service charge of operating the banking machine. Inasmuch as few other desirable securities were available, and its former best customer, the stock speculator, having been eliminated, the bank consequently could and did invest more and more heavily in the capital market, principally in public debt. But, as in the case of other machine products, the larger the investment in Government securities, the lower became the unit cost. While the old banking business of lending money to customers required a fairly large, shrewd, and experienced personnel, the present banking business of buying United States Government securities requires but a small clerical staff, which needs neither

shrewdness nor experience. While in the old banking business, one bad loan made by a guileless or inexperienced loan officer could wipe out a year's profit, in the modern banking business, no such calamity can occur. One Government bond is neither better nor worse than another Government bond; and all are convertible into currency on demand at 100 cents on the dollar; or more accurately 1,000 dollar bills on the 1,000 dollar bond. The result is that the cost of bank operation has fallen, and the larger the bank holdings of Government securities, the lower the unit cost of keeping the portfolio in order. There is, of course, the hazard of fluctuation, and this is equated by the market on a scale which runs from zero interest on the shortest maturities up to about $2\frac{1}{2}$ percent on the longest maturities. It would be interesting to know the average net rate of interest on all Government securities now held by the banks. It would probably be about 1 percent, which, at least for the larger institutions, is by no means an unprofitable rate of bank interest. It is sufficient to cover costs of operation and pay a modest return to the shareholders.

Let me illustrate the difference between the bank rate of interest and the individual incentive rate of interest. In the first quarter of 1935, it had become clear that while banks were buyers of Government bonds, and wealthy individuals in the upper tax brackets were buyers of the fully tax-exempt Treasury notes, the average man was not a purchaser. The longer notes were selling to yield about $1\frac{1}{2}$ percent, which was attractive to a bank or to a very rich man by reason of the tax exemption, but too low to attract anybody else. The medium-term Government bonds were selling to yield about $2\frac{1}{2}$ percent, which was reasonably attractive to a bank, but found few buyers among the public. At the same time it was believed that the public had a certain volume of savings which (a) sought security, (b) sought ready availability, and (c) sought an attractive rate of return, which we shall call "x"—the empiric-

cal incentive rate. It was guessed that these savings could be uncovered if the proper incentives were provided and that these incentives must be better than the terms the banks were willing to accept. The answer was the United States Savings Bond, with a sliding scale of return up to nearly 3 percent if held to maturity, and not available for purchase by banks. The response to this offer was immediate and large. The rate was not high, but combined with the terms, it was high enough to provide the incentive which has consistently attracted a continuous flow of savings. The rate of these bonds, while varying to maturity, has consistently been higher than on the comparable negotiable issues. Indeed, during most of the time they have been available, the yield on negotiable issues of ten-year maturity has been 2 percent or lower. Accordingly in this particular instance, the bank rate of interest was about 2 percent and the individual incentive rate nearly 3 percent. Or to put it in other terms, banks were able and willing to produce ten-year credit-capital for a return of 2 percent; while investors were willing to go to the effort of saving capital for a return of 3 percent. This spread of about 1 percent measures the differential. Had the Treasury offered these identical savings bonds on a 2 percent basis, they would have attracted less saved capital; had it offered them on a 4 percent basis, they would have attracted more.

Of course, the question immediately arises, if the Treasury can borrow for 2 percent from the banks, why does it borrow at 3 percent from the savings of individuals? The answer lies in the broader area of social and economic desirability, which is beyond the scope of this particular study. The point is that the Treasury recognized the fact of a differential between the bank rate of interest and the individual incentive rate.

The significance of the competitive employment of bank credit as a substitute for savings has been recognized, but it has not been appreciated. It has always been conventional to

employ a certain amount of bank credit as a substitute for capital; but it is quite clear that not much was used in this manner. This small use may have influenced the long-term rate of interest, but it did not control it. Furthermore, the use of bank credit as a substitute for capital savings was looked at askance. Orthodox doctrine held that bank credit ought not to be used as a substitute for capital. The word "ought" implies a moral or qualitative criterion. It was considered wrong for a bank to use credit as a substitute for capital; indeed, it was branded as distinctly inflationary.

This principle, convention, or tabu was weakened during the war period. It was further weakened during the New Era by the use of bank credit as a substitute for capital, not so much in the form of direct investment, as in the form of the stock market loan against a capital asset. In the present bank statements there is not a vestige of adherence to what was once one of the most devoutly held creeds of financial economics—that bank credit could not safely be used as a substitute for savings. Furthermore, while the basis of the formerly revered doctrine was the conviction that the use of bank credit as a substitute for savings would promptly and inevitably produce inflation, the actual sequences do not resemble the conventional and accepted phenomena of inflation. The accepted phenomena of inflation are rising prices, full employment, feverish industrial and speculative activity. These adjectives are far from descriptive of the present or recent past.

The results of using bank credit as capital were clearly foreseen and deliberately sought. It was recognized that if interest charges on deposits were reduced or removed, and if the banks were given a supply of potential credit in excess of the demand for short loans, they would enter the capital market; credit would come into competition with savings; and so force down the long-term rate. It was a clear case of using a machine-made substitute which was available at a lower price, and was just as

good as far as the user was concerned. The result is that not only the short money market, but the capital market is, as the saying goes, in the banks. The banks are not only a source of credit, but have become a major source of capital. The result is that the reduction of interest has been felt by all borrowers who seem to be in the market for capital—namely, the Federal Treasury, the Federal agencies, local government bodies, a borrower guaranteed by the Federal Government or its agencies, and a few—a very few—business enterprises.

Insofar as the banks and the market are concerned, the former distinction between capital and credit has disappeared. Formerly banks were the source of short money, and individual savings the source of long money. Now banks freely extend long-term capital; indeed, in recent years more of their funds have gone into long-term capital investment than into short-term credits. This obliteration of the distinction between credit and capital, requires a revolutionary change in all our thinking.

This fact of change is not of itself important. Changes in the functioning of institutions follow the Darwinian principle of adaptation to environment. If formerly credit and capital were regarded as qualitatively different entities, and if in that environment of compartmentation, the interest rate performed certain functions, we must suppose that those concepts of credit, capital, and interest were more or less well adapted to the social, political, and economic environment in which they took their part. If credit and capital have now become united or merged under the single concept of credit, long and short; and if as a consequence of this merging, the interest rate itself becomes adjusted to the new situation, we may suppose that this change also represented adaptation to the social, political, and economic environment of the present.

Probably it would be recognized that the dominant financial development of recent years has been the appearance of con-

tinuous large Government deficits. Although taxes are high, Government expenditures are higher, and increasingly the shape of our economy has been formed by the deficit expenditures of the State. This is the economic and financial environment to which our concepts of credit, capital, and interest have been required to adapt themselves.

It is obvious that the former concepts limiting bank credit to short-term loans and requiring all long-term capital expenditures to be financed out of savings would have precluded any such program. If the Federal deficit could have been financed only out of reduced consumption, the incentive rate would have long since risen to prohibitive heights. Had we clung rigidly to the former concepts of capital and credit, it is highly improbable that we could have trebled our Federal debt in a decade on an actually declining interest rate and with a relatively small increase in our budgetary charge for interest. Furthermore, now with a Federal direct debt near \$45,000,000,000 plus a guaranteed debt of \$5,000,000,000 more, we are embarking on a defense program of uncertain but large costs, which will increase the annual deficit and the cumulated debt indefinitely. Yet the banking and financial community has contemplated this prospect with equanimity.

To relate this to our general theme of security, we will note that our economic structure has as a result of the habitudes of a decade come to rest upon Federal expenditures financed by credit. Our economy has become environmentally adjusted to the deficit; and our concepts of credit, capital, and interest have become adjusted to the deficit economy. Over the past decade, that part of our credit and capital mechanism has functioned effectively and with almost no friction. Indeed, it has functioned so smoothly that it is believed it can carry the load of additional expenditures for national defense without requiring the curtailment of such expenditures as agricultural and urban relief and other social charges. Under the old concepts of capital

and credit, this would have been impossible without immediate and disastrous repercussions.

In short, the words *credit*, *capital*, and *interest* are words which we have used for years. Today's concepts of these terms are radically different from what they were a generation or even a decade ago. The change has been gradual; it can be traced over the intervening years; but in the end, it is complete. The old concepts were adapted to the world in which they functioned; the new concepts seem to be adapted to the world in which they are called upon to function—a world in which the effective demand for credit and capital comes principally, almost exclusively, from the State.

To narrow the concept of security in its application to the banking system, it will be remembered that in the past the limitation of credit to the short market was insisted upon by reason of the hazards introduced by the element of time, and by restrictions upon the convertibility of capital assets into cash through the medium of a fluctuating market. These hazards have been removed as far as legislation can remove them. Our concept of capital and credit has been adjusted to the fact of the deficit, and our banking system has been able to accept these new concepts of capital and credit by reason of the changes in our money system. As a determinant of value, by extending the discount privilege, the Reserve banks have largely replaced the market. Our political economy, our banking system, and our money system are an integrated and harmonious composite. Our money system is the logical complement of our banking system; our banking system is the logical counterpart of our political economy. And the cornerstone of our political economy has become the Federal deficit. As long as the concepts of money, capital, credit, and interest are adapted to the social, political, and economic environment, we may expect this functioning relation to continue to work smoothly and efficiently. It did so in the period of the World War; it did so

in the so-called New Era. In each of the previous periods there came sudden changes in the social, political, or economic environment which suddenly invalidated the premises on which the concepts had been based.

But, if we accept this general criterion of functional harmony, we must be careful to keep it within its own definitions. When we say that our current concepts of money, interest, and credit are perfectly adapted to a political economy whose cornerstone is the Federal deficit, we have not demonstrated that a political economy of that kind is in itself desirable or undesirable. The fact that our banking system is now capable of supplying an almost indefinite amount of debt-capital, is itself not an argument that a large supply of debt-capital of this kind is a desirable or undesirable element to inject into our society. Even the fact that our practice is only a replica of the practice of other nations goes no farther than to argue that we are following the contemporary fashion, not that the contemporary fashion is likely to increase or diminish human welfare. The fact that our financial machinery is running smoothly, is no argument that it is or is not running in the right direction.

The inference seems justified that any given concept of money, credit, capital, and interest is primarily functional. It derives its validity from premises that are inextricably woven into the social, political, and economic environment. They are in themselves neither good nor bad, sound nor unsound, strong nor weak. These concepts are not finalities in themselves; they are functional mechanisms, creations of a social, political, and economic environment.

IV

THE INSTITUTIONAL MARKET

PREVIOUS CHAPTERS have considered the medium of exchange, the institutions through which it is put into circulation, and its functions under the abstract terms of credit, capital, and interest. They discussed at some length the merging of the formerly separated concepts of credit and capital by the entry of banks into the capital market. It is easy to trace the result of this substitution of credit for capital, but very difficult to trace the consequences. The result has been the appearance of an extremely low long-term rate of interest.

Sometimes in economic statements "results" and "consequences" are considered to be synonyms. In this study, "consequences" are the derivatives of "results." The search for these consequences leads from the banking business itself (where the results first appear) through the capital market into a large number of institutions which in one way or another are tangent to banks.

In this discussion, as in the former ones, it will be necessary to limit the area of examination and to exclude a great deal that is extremely important in itself and relevant to the topic. For example, in considering capital, all forms of capital not evidenced by a debt were excluded. From the discussion of interest, were excluded all concepts of interest falling under the head of rent, unearned increment, or demonstrable functions of risk or managerial enterprise. In considering savings, all

reference to the valorization of individual capital gain by the use of bank credit was omitted, although in American history that has been one of the principal types of capital formation.

In passing, we offer the suggestion that the financial history of the United States will never be understood until some economist, completely soaked in the first two-thirds of Henry George's *Progress and Poverty*, but not dogmatically indoctrinated by the final one-third, analyzes what have been considered savings in America in terms of what Henry George called "unearned increment." When that is done, and not until then, will we have a fundamental interpretation of the economic significance of what we glibly call the "passing of the frontier," why the bull market New Era synchronized with a bear market in farm values, and also why the depression of the thirties has proved so intractable.

Furthermore, the market, as discussed here, was not the whole market of financial transactions, but only that part of the market in which banks are eligible to appear as participants. All sorts of things have been omitted, not because they are unimportant in themselves, or because they are irrelevant to the consideration of the subjects of credit, capital, and interest; but because it was desirable to limit the discussion to a single aspect of those subjects—namely their relation to the money and banking mechanism, and to those institutions which are in intimate relation to it.

There are few economic changes of the current century so marked as the change in the relation of the individual toward property. In place of the old relation of individual proprietary ownership, there has grown up within most individuals a complex of debtor-creditor relationships. I wonder how many readers would describe themselves as proprietors, that is, the direct, responsible owners and managers of productive property; on the other hand, there can be but few who are not creditors, whether by possession of a bank account, a United

States Savings Bond, a life insurance policy, or some other evidence of debt. To a great extent the idea of individual property in this country has come to be associated with debt; and almost every individual has a personal relation with the debt-mechanism, either as a debtor or creditor, or commonly both. When an individual is "in the black," in most cases his association with property is preponderantly that of a creditor rather than that of an owner.

In the second place, this creditor relationship is usually indirect, impersonal, institutional. It is not so long ago that creditors and debtors were, if not personal friends, at least personal acquaintances. The grasping creditor, about to foreclose the mortgage on the old homestead, was the standard villain of American drama for a century, but he has made his exit. The kindly village squire who lent the hero and heroine the money to build the vine-covered cottage is also no more. In their place, came an institution—a bank or insurance company. In this country today, the characteristic relation of the individual to property is not that of ownership but of creditorship, and the functions of this relation are exercised not by the individual but by the institution—some one of many institutions. All of these institutions, having various sorts of contractual relations with individuals, meet in a common market, which, as was said in an earlier chapter, is now dominated by the banks. We call our economy capitalistic; but it is a type of capitalism with which society has had no previous experience—debt capitalism.

In all probability, there are several million more creditors than debtors in the United States; but the creditors exercise their creditorship through only a few thousand institutions, while there are several million of individual debtors. Our legislation and our official attitude reflects the debtor's point of view, not because there are more debtors than creditors, but because there are more individual debtors aware of their debtorship than there are individual creditors aware of their creditor-

ship. Not only creditorship has been institutionalized, but also debtorship. The status of the mortgaged farmer has been institutionalized through one Federal agency, and that of the mortgaged urban home owner through another.

The relation of debt to property is not at all easy to state. What is called the burden of debt is generalized as a function of national income and its distribution. In the years since 1929, there has been a terrible shrinkage in the value of titles of ownership of all kinds—farm, city, industrial, railroad, and utility properties. The sum of all evidences of debt may be also somewhat lower, but there has been no comparable decline. In a comparison of the aggregate of capital value (which is a rather different concept than national wealth), a much greater proportion now than in 1929 takes the form of evidences of debt than of ownership, and this is probably still greater than in earlier periods. More and more, our capital market has become a market in debt-capital; more and more the capitalist has given way to the creditor and the *rentier*, a word formerly unknown to American capitalism. And, as part of this evolution, both the debtor and the creditor relation has been institutionalized.

This institutionalization of both the debtor and the creditor is largely a consequence of the search for security. The individual who has saved some capital, entrusts that capital to a savings bank, to an insurance company, or to a trust company, because by pooling his interests in this manner he believes he will find greater security than by individual effort. The debtor seeks the services of one of the Federal agencies because he believes his interest will be better protected than by trusting to his individual efforts. The institutionalizing of capital, and of the debtor and creditor relationship, opens a wide range of topics appropriate to discussion; but this chapter will consider only one—the result of the substitution of bank credit for capital, namely lower interest rates, and the consequences of this sub-

stitution upon those institutions which represent associations of creditor capital. To put it another way, having discussed a fundamental change in the practice of one type of financial institution, we shall consider the consequences of that change on a variety of other financial institutions.

A few of the many will serve as illustrations. All of them represent capital accumulated by the painful and rather slow process of individual saving, and all meet in a market now dominated by credit-capital created by the banking machinery. Of these institutions we shall describe two—trust companies and life insurance companies; two others we shall mention in passing—savings banks and the assembly of innumerable foundations, pension funds, and college endowments.

The growth of the trust departments of banks is one of the most striking developments of American banking. It is unfortunate that there is so little statistical material on the growth of the trust business; hence, the discussion must be mostly descriptive. But in thinking of the concept of banks as institutions functioning in a variety of relations to business, it would easily be true to say that those relations are to be found principally in the trust department. The corporate investments lodged in the trust departments of commercial banks certainly exceed the combined sum of their direct loans to, and investments in, commercial enterprises.

This absence of information on, or even interest in, the trust department of banking may be ascribed to a good many different reasons. First of all, the number of persons directly interested is relatively small. While a fair proportion of the banks in the United States have trust departments, the number of individuals having deposit accounts is infinitely greater than the number of persons having trust accounts. Secondly, the relationship is personal rather than general. If one depositor is unable to withdraw his deposit from a bank, presumably all other depositors are in exactly the same predicament;

but if one trust account proves unhappy, the other trust accounts in the same institution are not necessarily affected in the slightest way. Finally, while trust departments are subject to examination by the bank examining authorities, the nature of the trust account does not lend itself easily to statistical tabulation. The trust company function, as an aggregate, has not been considered as much "affected with public interest" as deposit banking.

As was said above, a bank is essentially a dealer in promises. The total of these promises constitutes the two sides of the bank statement. But a trust department is not a sum of promises; it is an aggregate of institutional and human relationships. Broadly speaking, trust accounts are of two kinds—the account in which the trust company is merely one of several persons charged with the decisions of investment, the other in which the trust company acts with full responsibility within certain terms. In the first case, the trust company acts as advisor; in the second, it acts as an administrator. As an administrator, its decisions are bound first of all by the terms creating the trust and secondly by elaborate legislation. The legislation regarding trusteeships generally, perhaps invariably, prescribes that the capital concerned shall be invested in promises, that is, in evidences of debt. When the trust is not so limited, that is, when the trustee has some latitude as an advisor, it is not limited to investment in debt. It may use its judgment, subject however to the consideration that if its judgment proves unfortunate, it is liable to be sued for damages. In short, a trust company is freer in the investment of its client's capital than a bank, but the legislation covering some types of trusts and the legal liabilities attaching to the fiduciary function urge trust companies in the direction of conservatism. And conservatism, under our laws and practice, has definite legalistic implications. It would be too much to say that our law and our practice define a conservative investment solely in terms of

evidences of debt. But the laws and practice of trust companies incline them strongly or predominantly in the direction of investment in evidences of debt. One may probably conclude that the investments which a trust company makes for the account of its clients do not greatly differ in kind from the investments which a bank makes on its own account except for liquidity. For example, in the choice between a high grade residential mortgage and a high grade corporate bond, the former would have the higher yield and the lower marketability. In the abstract, both might be equally "good," but the former might be regarded as more suited to a trust account and the latter to a bank portfolio. But either would usually be preferred in a trust account, whether by law or practice, to the ownership of a piece of real estate or the ownership of shares of stock in the same corporation. In other words, both our laws and our practice bring pressure on trust companies to put their customers in the position of creditors rather than owners of property.

The growth of trust accounts is to a considerable extent the outcome of the search for security. The testator leaves his fortune in the care of a trust company, because he believes that it will be more secure than in the hands of his heirs. Legislators on the well-known principle of *quis custodiet ipsos custodes* then prescribe the use which the trust company can make of the funds entrusted to it. Thus security is made doubly secure—the security of legal prescription and the security to be found in the financial experience of the trustee. The trust company also seeks security, but its definition of security is slightly different from that of either the heirs or the legislator—it must ensure its security against the legal liabilities inherent or latent in its trusteeship. All these considerations tend to canalize the capital affected into rather limited channels, largely channels of creditorship rather than ownership. And, of course, the larger the fraction of the nation's capital so entrusted, the larger

will be that part which, by law and convention is canalized into, or gravitates toward creditorship rather than ownership.

When we think of banks as functioning institutions, we must think of them as dualisms or twins. It is not enough to think of banks simply as banks, we must always think of them as managers of the use of two more or less equal funds, the funds in their banking and trust departments. In recent years both funds have grown; as the funds in the banking department have grown, they have been directed more and more in the direction of the State. As the funds in the trust department have grown, they have presumably been directed proportionately somewhat less in the direction of the State. But both funds are to be considered primarily funds of creditor-capital rather than owner-capital.

Trust companies, as was described above, are not primarily concerned with the formation of capital; they are entrusted with the investment of capital already formed. Furthermore, their cost of operation is neither an interest rate nor is it a function of an interest rate; it is met by a fee expressed as a small percentage of the capital fund. They invest the funds entrusted to them to the best interests of their client; but this obligation to the client is primarily an obligation of scrupulous adherence to the provisions of law. They are not required to return to the client the principal sum which he entrusted to them; they are not required to return to him any stipulated income. If interest rates fall as a result of the incursion of credit into the territory of capital, the clients of the trust companies may repine, but the trust companies themselves are not affected. Their course of action is clearly marked out for them.

The case of the insurance companies is quite different. Insurance companies must form capital before they can invest it; or rather, they must persuade their clients to form capital. They must induce individuals to go without articles of immediate gratification, and to undertake this daily sacrifice

over a long period of time against a set of promises with which everyone is familiar. So far as the insured is concerned, the cost of this capital formation is the amount of sacrifice entailed in accumulating premiums minus the feeling of security obtained by paying it. So far as the insurance company is concerned, there are several costs involved: the cost of obtaining the customer; the cost of operating the business as a business; the cost of insuring the insured; and the obligation to return to the insured or his beneficiary a contract sum equal to or exceeding the amount that has been paid in during the life of the policy. In other words, on both sides the insurance business is a set of mutual promises, extending over a long period of time—ten, twenty, thirty, or more years. While these are mutual promises, they are not equally binding, for the insured may terminate his promise at any time, while the insurer may not. The insurance company, like the bank, incurs a definite obligation extending over an uncertain period of time; like the bank, it sets its promise against promises purchased from others; like the bank, the kind of promises which it may purchase are strictly defined by law, and, indeed, are practically the same as those permitted to bank and trust accounts. We have, then, three institutions—banks, trust companies, and insurance companies—converging on a single market; a market designated by law and convention as providing a maximum of security for the funds invested in it. This point of convergence is the market for debt-capital.

A market is a reflection of supply and demand; and this particular market is no exception. The supply of securities of institutional quality is by no means unlimited. The number of commercial concerns capable of issuing a promise that could pass the exactions of this market has never been more than a minute fraction of all the business enterprises of the country. Furthermore, certain types of enterprises, whose promises formerly ranked high, have fallen on evil days—notably the railroads.

Formerly a number of foreign borrowers ranked high enough to qualify for that market; this number is greatly reduced. One of the principal sources of supply was the mortgage on real estate, which from the landing of the Pilgrims in 1620 to the collapse of the war boom in 1920, was the longest and most persistent bull market in history. The financing of farm mortgages has largely been transferred from the market to a Federal agency. Urban commercial building has never recovered from the collapse of 1929. Local government debt has had no marked growth in the past decade. The issues financing the Federal Treasury and its agencies, residential mortgages and a trickle of corporate obligations constitute the supply of securities offered this market, that is, constitute the supply of securities which can qualify, by law and convention, but mostly by law, for the portfolios of these three institutional buyers.

The demand of these three institutional buyers is determined by factors quite independent of the supply; and the factors or conditions of demand of each of the three are quite different. The controlling influence in the demand of banks for these securities is the existence of excess reserves. When the banks have excess reserves, they can be buyers; when they lose excess reserves, they are not buyers but may become sellers. The question of whether they will or will not have excess reserves is entirely outside their own control. For a long time past, they have had excess reserves, and they have been buyers. But given the limitations of the market in which they must buy, the more they buy, the more they depress the rate of interest; and the lower the rate of interest, the more they must buy in order to meet their operating expenses. Now that the distinction between capital and credit has been discarded as a mere tabu, and with excess reserves continuously rising, there is mathematically almost no limit to the amount of securities that banks may buy—or, in other words, there is no calculable limit to the demand of the banks. Inasmuch as the supply of permitted se-

curities is limited there is however one calculable restraint. They cannot, as institutional buyers, force the average interest rate of the market below their actual operating cost.

The factors affecting trust companies are quite different. Their buying capacity likewise is beyond their volition—they can invest only the funds which their clients entrust to them, either on original placement or by the reinvestment of the income derived from it. While the total of trust funds has increased rapidly in recent years and probably is still increasing, it is probably not true that fresh capital in the hands of trust companies increases at any comparable rate. A great many, perhaps most, estates consist of securities rather than cash at the time they are transferred to the trust company. The work of a trust company consists far more of the rearrangement of the client's portfolio than of investing fresh cash money. It is hardly too much to say that for every security a trust company buys, it sells another one. But this does not mean that its market influence is canceled—exactly the reverse. In this process of rearrangement, the tendency is to sell the non-institutional security and buy the institutional one. The general influence is, of course, to lower the non-institutional and raise the limited institutional market. Saying it in terms of the interest rate, the tendency to place fortunes in trust depresses the institutional interest rate in very much the same way as the entry of the banks into the same market depresses it. In one sense trust companies can follow that rate even lower than banks, for the institutional income of a trust company—the income it requires to stay in business—is not determined by the income received from its investments. On the other hand, trust company investment is less narrowly confined than that of banks because of the great variety of trusts which may be set up.

The demand of the insurance companies is determined by quite other considerations than those affecting banks and trust companies. Primarily it derives from the continuous inflow of

premium payments on contracts written some time back. The second largest factor would be the income derived from the existing portfolio. Unlike the trust companies, they have a continuous inflow of cash income which they must invest as long as new policies exceed maturing policies. Unlike the trust companies, the income to be received directly relates to their contractual arrangements with their clients, and must be invested in that limited market which is open to them, at a rate determined mostly by institutions having quite different contractual relations with the public.

This may be stated another way. The institutional market consists of securities for the most part designated by law—a limited supply of securities. On this market converges the demand of three institutional purchasers, having three different contractual relations with the public. This convergence of demand raises prices in that market, that is, it reduces the interest rate. As far as the banks are concerned, the decline in the interest rate can be compensated by an increased volume of interest-bearing holdings as long as they have excess reserves, without reducing institutional income below institutional costs of operation, or affecting the institution's contractual relations with the public. As far as the trust companies are concerned, the decline in the interest rate may cause a loss of income to the clientele, but it in no way reduces institutional income below costs of operation, nor does it affect the institutional, contractual relation with the public. But for the third party in this congested market, the decline of the interest rate directly affects institutional income as it relates to the margin between institutional costs of operation and the contractual obligation.

It is not necessary to elaborate on the consequences of low interest rates for the two other creditor institutions, savings banks and endowment funds. Savings banks have in recent years been obliged repeatedly to reduce their deposit rate. The rate of deposit interest of savings banks and of its influence on

the volume of deposits is statistically extremely interesting, as it is one example of what we have called the incentive rate of interest. This rate has fallen steadily from about 4 to about 2 percent. The savings banks are caught between two fires. Their earnings depend upon a market whose rate of interest is determined by the convergence of a good many enumerated demands on a limited supply. Their capacity to attract deposits is of course limited by the rate of interest those earnings will support. But in the attempt to attract deposits, they have in recent years met with specific competition which is extremely difficult. The United States Savings Bonds sold by the Treasury, if held to maturity offer a rate higher than a savings bank can afford to pay. Hence, it is not surprising that ever since the United States Savings Bonds appeared, the growth of the savings bank deposits has been small, while sales of Savings Bonds have risen by leaps and bounds.

The magnitude of the role played by various kinds of endowments and foundations in contemporary society is not generally appreciated, because there is no statistical tabulation of it. A large part of the amenities of society is dependent on them. These funds are commonly administered by trust companies or trustees, and any remarks made above regarding the clientele of trust companies are applicable. Through them, society itself is a creditor, and repercussions on them affect society as a whole in countless ways—largely ignored, because not statistically tabulated. Indirectly or directly, they are participants in the debt-capital market; and for the same reason as the others—the search for security.

Let us now sum up the result of the substitution of bank credit for saved capital, and some of the consequences of that substitution. The result has been a marked lowering of the interest rate on all types of loan capital which are regarded as providing maximum security. At the same time, the supply of offerings of institutional grade has been diminished by the

financial deterioration of many sections of the market formerly well regarded; and increased by the rapid growth of the Federal debt, of the fully guaranteed debt, and of the partially guaranteed debt. Where the institutional market was formerly corporate and municipal, it is now principally Federal. Not only are Federal instruments examples of security in themselves, but their interconvertibility with the currency gives them an absoluteness of security which even the strongest corporate obligation could never claim. Upon this limited supply of approved securities, the demands of commercial banks and numerous fiduciary institutions have converged.

The ensuing phenomena are often cited as evidences of economic causes to which they are quite unrelated. For example, the extremely low rates are quoted as evidence of an abundance of capital seeking investment—so-called idle capital; and this apparent abundance of capital is said to be derived from over-saving. Now it is possible that there is an abundance of idle capital or it is possible that there is over-saving, but it cannot be demonstrated from these phenomena. All three argue merely that the supply of institutionalized debt-capital converging on a market dominated by the substitution of bank credit for capital has created a relation of supply to demand which has steadily driven down the rate, and hence may properly be called over-supply. But two qualifications should be entered: (1) that it is the utilization of bank credit as a substitute for saved capital that has been the decisive element of supply; and (2) that existing savings seem to be increasingly canalized into the institutional debt-capital market rather than distributed over the entire capital market, including ownership-capital.

The reason, of course, as we have emphasized in this study is the ubiquitous search for security. One is sometimes tempted to wonder whether there is enough security to supply the demand, and to raise the question, whether the traditional su-

perior security of debt-capital over ownership-capital is capable of indefinite elasticity. A lifeboat may offer traditional security in a storm; but if too many people seek the security of a single lifeboat, the element of security may prove more traditional than inherent.

When it first became clear that bank credit was to come into general use as a substitute for saved capital, there was a general cry that this was inflationary—that it would produce a rise in prices which would depreciate the value of all creditor capital. No such development occurred *in the form predicted*—that is, there was no marked rise in the price level—or, to put it another way, no internal depreciation of the dollar. Yet the effect on creditor capital was precisely what was predicted. If a savings fund at 4 percent formerly yielded an income of \$1,000, the effect on the owner of a reduction of the interest rate which cuts that income to 2 percent or \$500 is much the same as if the income had remained at \$1,000 and the cost of living had doubled. In the latter case, the use of credit for capital would have been called inflation; in the former case, it is not.

Nevertheless, the substitution of bank credit for saved capital has introduced profound changes in the whole structure of American capitalism. Some of its consequences are already observable; some are barely discernible; others are still no more than embryonic. But we may be sure that in the end the consequences will be far-reaching and comprehensive. As yet, we have not begun to appreciate these consequences or their implications on our economic nor our social structure.

V

THE SEARCH FOR SECURITY

THESE DISCUSSIONS have been designed to be tentative, exploratory and suggestive. They have aimed at describing money and banking as things kinetic rather than things static; as abstract ideas incarnated in institutions; with both ideas and institutions continuously changing their forms with the changes in the world of which they are a part. By this method we have hoped to illustrate the principle of Hegel that ideas, concepts, theories—call these what you will—create institutions; and that these institutions once created develop entities of their own, which may conflict with the idea that created them. In this process one cannot discuss the abstract idea apart from its institutional incarnation; nor the institution apart from the abstract idea which it embodies more or less imperfectly. In the financial world these ideas cannot be isolated from each other; they are continuously interacting on each other. In the same way, the institutions which embody them, cannot be observed in isolation, for they are continuously interacting on each other.

Neither the institutions nor the ideas they represent are immutable. They are not only continuously changing within themselves, but they are subject to change from exterior sources responsive to the social will. These expressions of the social will are also reflections of ideas; and, as was said in the first chapter, the dominant idea of the social will in recent years has been "security."

In the first four chapters it was intended to describe these ideas and these institutions in terms of the search for security. In this chapter, it is intended to describe the term "security" as illustrated by these changing ideas and institutions. The word "security" gives the key to the changes in our money and banking system in recent years. The debacle of 1933 disclosed serious weaknesses. Our money system was a dualism of currency and deposits, and the bank crisis demonstrated that convertibility of the currency into gold did not ensure the convertibility of deposits into currency. One great change in our money system since 1933 is the institution of effective measures for maintaining the interconvertibility of the two elements of our money system—deposits and currency. The remedy adopted has been the abolition of currency convertibility into gold, and the adoption of a money system composed essentially of non-interest bearing, direct or indirect public debt.

Banking as a business is continuously endeavoring to increase its security. The debacle of 1933 demonstrated the insecurity of a banking system whose assets were not generally convertible into currency and were subject to extreme fluctuations. Since 1933, banks have greatly increased their holdings of the public debt, and while this change has increased their security, it has drawn them farther away from the financing of private enterprise and into the financing of public expenditure. Financed by the banks, Government agencies are taking over much of what was formerly regarded as the function of banking.

In the process of financing the deficit, the banks have largely obliterated the former boundary between credit and capital. Supplied with abundant excess reserves, banks have entered the capital market, depressing the long-term rate of interest. This entry of the banks into the capital market has brought them into competition with those institutions operating with saved-capital, such as insurance companies and trust funds. At the same time, individuals in their search for security, have

more and more come to choose the creditorship relation to property in preference to the ownership relation; and to prefer to collectivize or institutionalize their relation to property rather than to individualize it. The combination of preferences has brought a convergence of credit and capital into one comparatively small section of the capital market—the section promising maximum security.

“Security” itself is an abstract word; but security as expressed by the social will, in legislation or in administration, becomes concrete and institutional. Furthermore, the concept of security itself becomes under such circumstances defined as “security” against specific hazards illustrated by some experiences in the immediate past.

The financial hazards most vivid in the public mind are those illustrated by the collapse of the money and banking system in 1933. Every change introduced into this system since then has been intended to provide security against some specific hazard which contributed to that collapse. And, as was stated earlier, these measures provide absolute security against every specific banking hazard disclosed in that year.

It may sound paradoxical, but most of the measures introduced to increase the security of the money and banking system consisted of removing certain measures previously established for ensuring the security of that same system. Ever since the innovation of paper money, the free convertibility of currency into gold coin had represented the acme of security in a currency system. Nations, including our own, had on occasion endured no small duress in order to achieve and maintain this convertibility—and had counted the effort worth the cost for one specific reason—that it imposed a limitation on the quantity of money, whether in the form of currency or bank deposits. We abandoned convertibility for the very reason we had adopted it—because it limited, or might limit the amount of currency to be issued.

The original Federal Reserve Act had prohibited the issue of Federal Reserve notes against Government securities because it was feared that if permitted, too much currency would be issued. This prohibition was repealed because it was feared that unless currency was issued against Government securities, there would not be enough currency. The Federal Reserve Act had defined very narrowly paper eligible for discount at the Reserve banks, as it was feared that access to the Reserve banks would be too easy; we repealed the definition of eligible paper and made "all sound assets" available for discount in order to make access easier. The original Federal Reserve Act prohibited the Reserve banks from buying Government securities because it was feared that such purchases would make it too easy and too cheap for the Treasury to borrow money. We repealed that prohibition in order to make it easier and cheaper for the Treasury to borrow. Our legislation imposed strict requirements on banks to obtain membership in the Reserve system because it was believed that this would raise the standards of banking. Those restrictions have not been removed; but access to the Reserve banks has been opened to non-member banks in the belief that such access would enhance the soundness of the banking system. We drew sharp distinctions between credit and capital and taught dogmatically that the utilization of bank credit in lieu of saved capital would facilitate an increase in long-term debt. We changed our doctrine and practice because the utilization of bank credit in lieu of saved capital would facilitate an increase in long-term debt. The aims of central banking technique for years lay in the skill with which it adjusted its decisions to the market rate of interest. Now the acme of central banking technique is the skill with which it controls the market rate of interest in conformity with its decisions. In short, most of the reforms introduced into our money and banking system in recent years have consisted in

repealing previous reforms and substituting their precise antitheses.

Nothing would be easier than to wax satirical at this point, to remark that all one must do to see things in their true position is to stand on one's head; that all one must do to reach the world of reality is to go through the looking glass. It would be very easy at this stage to become ironical, and to remark that the whole spirit of reform is summed up in the quotation of the anxious mother, "Find out what the children are doing and tell them to stop." It would be very easy to describe these changes in such terms; but it would not be very honest for three reasons: (1) it would deny the premise of continuous economic change; (2) it would deny the validity of empirical experience in devising institutional adaptations to economic change; and (3) it would elevate the position of money and banking to that of an economic absolute, instead of emphasizing money and banking as economic ancillaries. It would indeed, be no more useful than the three reciprocal assumptions very commonly held: (1) that all economic change represents continuous progress toward something better; (2) that empirical experience, particularly experience of a vivid and catastrophic sort, is invariably a safe guide; and (3) that because money and banking are powerful mechanisms, any purpose which they can be made to serve is a social purpose.

All economic concepts, and the institutions which apply them, exist in a world of continuous change. The America of 1940 is not the America of 1840, nor of 1900; we as individuals are not the same persons we were in 1914, in 1929, or even in 1933. As was remarked in our first chapter, in our lifetime we have seen social emphasis in this country shift from the word "opportunity" to the word "security." We have seen the phrase "rugged individualist" change from a title of commendation to an epithet of opprobrium. But today will not last forever.

Some other cliché will replace "security" as the sum of economic beatification. Those who say there is nothing sacred about the past, by that statement usually imply that there is something sacred about the present or the future; whereas past, present, and future are equally sacred, or equally profane.

Nor is change—economic, social, or political—an invention of contemporary times. Two thousand years ago, Vergil wrote: "*Tempora mutantur, nos et mutamur in illis.*" But we change reluctantly. Major reforms are rarely the consequence of foresight or anticipation; and this is particularly true in economics. Had Nietzsche been an economist, he would never have uttered his famous counsel to "live dangerously"; he would have been only too aware that in the economic world people have never lived otherwise.

The whole course of economic history is the record of an unceasing search for security, of the adoption of ideas designed to provide security, and of the incorporation of those ideas into institutions to make the ideal real. Without the institution, the idea is nothing; but the institution is never more than the imperfect representation of the idea; and under the ceaseless buffeting of time and changing circumstance, these institutional structures become less and less representative of the idea that created them.

Nothing could more clearly illustrate this than our pre-collapse banking and monetary history. Forms, legislation, and structure had not kept pace with the changes that had been going on about it. And conflict developed structure and actuality in which the structure neither conformed to the theories on which it had been premised, nor had it been adapted to new ones.

The catastrophe of 1929-33 forced the recognition of change and of the need of adjustment to change. We learned by hard experience that the very measures which had been taken years before as safeguards of security for our money and banking

system proved not to be the safeguards of security, but the very causes of disaster. Under the exigencies of an immediately vivid experience, it was probably to be expected that the change would take the form of a 180 degree reversal. It would be very flattering to cite this as an evidence that we are much smarter people than our fathers; that the best banking and money system that they could devise proved fragile; that their concept of security was so mistaken that it converted itself into insecurity. But while flattering, that would not be particularly fair to them or helpful to ourselves.

Those particular safeguards had been created, out of experience and deliberation, to fit a particular time, to fit a particular condition of the economy, and to protect against a specific set of hazards,—the hazards that then impressed legislators most vividly. To speak metaphorically, they constructed what seemed to them an impregnable line of defense facing in the direction from which danger had hitherto appeared and from which experience led them to believe that danger would appear again. Looking at it with all the objectivity of retrospection, we may say that these safeguards were perfectly adapted to, and adequate for protection of the old front. Our money and banking system of the twenties provided adequate security against the type of danger which had appeared in 1907 and again in 1920. It offered inadequate defense against the type of danger that developed in 1929.

When we came to reconstruct our defenses, we had the experience of 1907, of 1920, and of 1929–33 to serve as counselors, and we may consider our money and banking system fully protected against those particular types of danger. But we must add the inference of history—that the next time our money and banking system is imperiled, the danger will come in some form not illustrated in 1907, 1920, or 1929–33. In other words, while empirical experience must be consulted as a guide to monetary and banking legislation and organization, preoccupa-

tion with the most recent and vivid catastrophic experience, while useful, is by no means comprehensive or total. The difficulties and problems of the immediate past loom so large in the perspective as to obscure other features of the landscape.

One consequence of this preoccupation is a general tendency of banking legislation to swing from one extreme to another. The whole history of monetary and banking legislation in this country over the past hundred and fifty years exhibits this tendency. For example, in the period of the Revolution, not only the Continental Congress but each of the States issued paper currency at their several pleasures. The result was that it reached various stages of worthlessness. By way of reform, we rushed to the other extreme, abolished paper currency entirely and went on a hard money basis. The country was growing rapidly and supplies of gold and silver were small. The money was too hard. We therefore reversed again, and swung to the other extreme, chartering innumerable wildcat banks with the privilege of issuing notes virtually at will. This overcame the undoubted shortage of currency on the frontier and played a great role in the winning of the West; but these notes too suffered varying degrees of depreciation. To remedy this chaotic situation and to finance the Civil War, Congress took currency into its own hands, and by indubitably violating Constitutional authority to "coin" money, fought the war on greenbacks. These in turn promptly depreciated below the value of the coin still in circulation; and Congress supplemented the greenbacks with the National Bank currency and abolished the note issue of the state banks. By this time all our paper circulation was at a discount on our metallic currency; we swung again. The end of the war arrested the issue of additional paper; the outstanding currency was shared with the moneyless communities of the Confederacy. Excess became deficiency, and a currency shortage again developed, as it had two generations earlier. This gave rise to the great political agitations of the

eighties and nineties—the Greenbackers, the Populists, and the Free Silver sponsors, whose “soft money” demands were the antithesis of the hard money insistence of the creditor communities that had communal recollection of the “soft money” days of the Civil War. Besides, the Northeast had found a substitute for currency in the growing use of checking accounts, and had little sympathy with the South and West that were still on a currency basis, without enough currency to go round. The controversy was eventually solved less by changing the currency than by increasing the use of deposits, until this system collapsed in 1933.

Geologists tell us that the astronomical history of the so-called temperate zone records a succession of glacial and tropical ages. The monetary history of the United States shows a similar geological record. We have swung violently from soft to hard money. Geologists say that we are in the receding phase of a glacial period; a good many economists would say that we are in the ascending phase of a soft money period. But that is not the point. The point is that the money and banking systems of a period and of a country, and the institutions related to them, are functions of the economy of that period and of that country. They are good or bad as they are functionally related to the period and the country. And, even by that standard, the functional goodness and badness are rather relative than absolute. Of all the many monetary systems which this country has enjoyed or suffered in its relatively brief history, there is none that was absolutely good or absolutely bad. The Continental currency was one of the worst systems the world ever saw; but it financed the American Revolution when there was no other way of financing it. If possible, the system of wildcat banking was even worse, for it combined monetary unsoundness with open opportunities for personal skulduggery. But if the winning of the West had waited for a better system, our frontier might still be the Mississippi River. The London money

market described by Walter Bagehot in *Lombard Street* was one of the most perfect and delicate economic mechanisms the world ever saw; but neither then nor at any time since could it have been transplanted to the United States with the slightest prospect of functional utility.

A given money and banking system is the product of legislation adopted under pressure. This pressure derives from an immediately antecedent catastrophe which is itself a consequence of faults in the previous system; and in the process of correcting observed faults, it has so far never yet failed to create new vulnerabilities which in due time disclosed themselves in another economic catastrophe.

From a denial of the existence of absolute virtue in money and banking; from a statement that goodness and badness are expressions of functional appropriateness to time and place; and a statement that the most carefully considered safeguards of one period become the reefs of disaster in the next, it might be inferred that one system is no worse nor better than another; or that whatever is, is right; or that there is nothing to be done except to wait for the next catastrophe. Nothing could be farther from the truth. The absence of rigid and formalized criteria that can be set down in a text book and memorized like the general orders in the *Manual of Interior Guard Duty* does not mean there are no criteria. It means that the criteria change with time and place; that they are difficult to discover except by empirical experience; and that once they are discovered, they are difficult to state convincingly until they have been disastrously violated.

Indeed, the naive belief in the existence of simple criteria of goodness and badness often betrays its followers. For example, a decade ago, there was a general acceptance of the idea that a rise in commodity prices was the infallible criterion of inflation. Believing this, the terrible expansion of credit in the security markets was regarded as superficial. When the market crashed,

we reassured ourselves with the consoling thought that the situation was fundamentally sound, because there was no inflation—evidenced by the fact that there had been no rise in commodity prices. The event proved that our whole credit structure had been inflated to the bursting point and that the whole position was unsound from top to bottom. Another illustration of the danger of accepting dogmatic criteria is illustrated by more recent events. When deficit financing began on a large scale, and it was recognized that credit was generally being substituted for capital in deficit financing, there were general predictions that the holders of fixed income securities would suffer. Their real income would shrink, it was said, because the price level would rise. This was an example of the misapplication of a useful historical criterion. As a consequence of the substitution of credit for capital, the holders of fixed income securities have suffered and suffered severely—as anyone connected with endowed institutions knows to his sorrow. The substitution of credit for capital depreciated the value of capital. The tradition proved valid, but the traditional criterion proved invalid. The depreciation of the value of capital did not take the predicted form. Capital did not depreciate in terms of commodities; it depreciated in terms of money, that is, the rate of interest was lowered.

For a long time, various rates of interest were valid criteria of financial strength and weakness, and occasionally they are still cited with complete irrelevance. For example, the extremely low rates of interest prevailing on securities of institutional grade is sometimes quoted as an evidence of an abundance of capital seeking investment, or even as evidence of that elusive economic phenomenon called over-saving. It is, of course, nothing of the kind; it is mere evidence that the supply of institutional funds exceeds the demand that can meet institutional requirements. There is always a disposition to reduce the criterion to a cliché and then to apply the cliché as a criterion.

But to make the matter really difficult, a good many of the old operating criteria have ceased to have their former relevance. This is disconcerting to the practical man and exasperating to the student, as both are by nature dogmatists and doctrinaires. It is comforting to have ready-made criteria, well established by tradition, by which we can promptly praise this and blame that, stamp this as good, that as bad. The human race loves to be told the things it should point to with pride, and those it should view with alarm. In economic history, the predicted disasters that never occurred are only exceeded by the number of promises that were never fulfilled.

There is still another fact to be considered. We have suggested the necessity of continuously relating our criteria of money and banking to the fact of social and economic change. We have suggested the desirability of regarding the money and banking mechanisms as ancillary institutions of the political economy, and of testing these mechanisms by the criterion of their functional adaptation to a given time and place. But we must hasten to add that while a lack of functional adaptation is a guarantee of financial disaster, the perfection of functional adaptation is no guarantee of financial security. For example, history is full of examples of nations that have attempted to adapt a gold standard currency to a political economy based on fiscal deficits. This has invariably led to financial disaster. The abandonment of the gold standard provides a functional adaptation of the currency system to a political economy based on fiscal deficits; but this criterion is of itself no guarantee that a political economy based on fiscal deficits provides social security. Our money and credit mechanism as they existed in 1917, were functionally adapted to the particular type of war finance that we followed in 1917-20; but the subsequent disaster might be cited as evidence that those methods of war finance were certainly open to criticism. Our money and credit mechanism of the New Era were functionally adapted to a

political economy based on a deficiency of savings. But the subsequent disaster might be cited as evidence that an economy of that sort was a dubious blessing. The money and banking mechanisms, while essentially ancillary factors, are powerful; but this carries no implication that every utilization of that power is of equal merit, simply because it is within its capacity. These general policies must be tested by other criteria.

It is impossible to discuss the theory of money and banking apart from the institutions which reduce that theory to practice. It is impossible to discuss abstractions like credit, capital, and interest, without discussing the institutions which deal in credit, capital, and interest, and which meet in a common market. These abstractions and these institutions cannot be studied as isolated entities. They are elements of a composite, and must be studied not merely in terms of their own composition, but in terms of their relation to each other, and in terms of their relations to that complex we call the political economy. Often we hear the expression that something is good in theory but bad in practice, or some other idea is good for the debtor but bad for the creditor; or that something else is good sociology but bad economics. In my opinion, all such statements are pure nonsense. At times, for example, we find an apparent conflict between theory and institutional practice. When we find such a conflict, it is merely evidence that we should reëxamine both, and either discover and understand the new theory that has come to underlie the practice, or correct the malpractice.

The whole complex, at a given time and in a given place, may best be understood in terms of a single dominant aspect. For example, one cannot approach American economy from the time of the discovery to the early nineties except in terms of the settlement of open land. One cannot approach American economy from the nineties to the end of the New Era except in terms of industrialization. These papers have undertaken to explain the recent changes in our money and banking system

in terms of the word "security"; and to define the word "security" by illustrations from our money and banking system—security within the money and banking system itself; security in other institutions affected by changes in the money and banking system; financial security in the entire economy insofar as that is affected by changes in the money and banking system.

In the area which we have discussed, the changes of recent years have been numerous and complex. Their intent is evident, as well as specifically professed. That intent has been to increase security. These changes, while offering protection against one set of hazards, have themselves introduced other hazards. Some of these can be recognized; others are no more than conjectural. It has always been recognized that it was hazardous to identify the money system with the public debt; it has always been recognized that it was hazardous to employ bank credit as a substitute for savings; it has always been recognized as hazardous to emphasize debtorship at the expense of creditorship or creditorship at the expense of ownership. It has always been recognized as hazardous to institutionalize economic functions. It has always been recognized as hazardous to divide responsibility. In the search for security, our financial system has eliminated one set of hazards by creating another set.

There is nothing particularly new or startling in such a statement. Every decision in the life of the individual is but the exercise of an option between alternatives, each of which holds the hope of certain promises, and the hazard of certain threats. Hazard can no more be eliminated from social life than from individual life. The incidence of hazard may be shifted; specific recognized hazards may be avoided; but the fact of hazard remains. All economic policy is merely a choice between alternative risks, appraised by experience under circumstances in which one risk appears more vivid than the

other. The search for security is and must be continuous and unending, for the security of today becomes the insecurity of tomorrow. The price of security is the realization that as an absolute it is unattainable; something always to be sought, but never to be found.

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