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THIS book contains a sketch of the banking system of the United States, a system which, while sharing most of the basic principles of British banking, is unique in its decentralized form. Chapters on the structure and business of the commercial banks are followed by a view of the Federal Reserve System and an analysis of the methods of control exercised by it. The latest developments receive considerable attention, and in a final chapter the author reflects on some implications of these developments, and on the question, Can 1933 come again?

The book is based mainly on the American literature, both official and academic. This literature is too voluminous for most readers, and the present book is designed to provide an account within the compass of an evening's reading.

AMERICAN BANKING SYSTEM

A SKETCH

BY

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PREFACE

BRITISH readers have two good reasons for studying the banking system of the United States. First, in an advanced industrial community of the western type the Americans have a banking system which, while sharing most of our basic principles, is in its forms very different from ours. A comparative study of American and English banking, therefore, can hardly fail to lead to a fuller understanding of the latter as well as the former, and a clearer appreciation of potential developments—perhaps even (though English bankers will be sceptical) to ideas for the improvement of our own system.

Secondly, the United States economy weighs heavily in the total world economy, to the vicissitudes of which Britain as a trading nation is exposed. Whatever is said of its part in the preceding boom, it can scarcely be doubted that the misbehaviour of the American banking system significantly aggravated the Great Depression. We have too direct an interest in catastrophes of this kind to be careless of their causes. What was there about the American banking system that had such ill effect? Is it still there? Can 1933 come again?

The English student who for these reasons wants to study American banking can turn to a colossal American literature. There are the works of Beckhart, Willis, Goldenweiser, Hardy, Burgess, Reed,

Harris, and a host of others, besides the voluminous (and extremely useful) *Annual Reports*, monthly *Federal Reserve Bulletins*, and many other official publications of the Federal Reserve System. (On all of these I have drawn freely in the following pages.) But the English student is appalled at the thousands of pages, and if he has asked for a book which will give him a general and up-to-date sketch in the compass of an evening's reading, I have not known what answer to give.

It was for these reasons that when, as a Visiting Lecturer at University College, London, a year ago, I was giving talks on monetary and banking problems beyond the scope of the readily available books, I included a few lectures on the banking system of the United States. Out of those few lectures this little book has grown, in the belief that a wider audience is ready for it.

I hope that some English readers will think the subject important enough to go farther. For their benefit I have given a note on further reading. This is not a bibliography, but it includes at least one book giving that facility.

If any American expert has time to glance through this book, he will no doubt think some things strangely cast. I hope he will not be slow to tell me how my sketch (it is only a sketch) can be improved. And perhaps he will find some incidental interest in seeing how it all looks through English eyes. I should like to think that in its own small and highly techni-

cal way this little book will contribute to a closer understanding between the American and English peoples.

I am indebted to Mr. Paul Bareaux, who has read the proofs and given me the benefit of his great knowledge of this subject; and to Miss N. Watts, who has given the proofs a thorough final reading. Also I have been helped by Miss Carruthers, Librarian of the Cabinet Office, and Miss Shrigley, of the Institute of Bankers' Library, who have obtained for my perusal many American publications.

R. S. S.

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I

A GENERAL VIEW OF THE STRUCTURE

THROUGH English eyes the structure of banking in the U.S.A. appears an extraordinarily involved one. There is no nation-wide system of a few great branch banks centred on a single pivot like the Bank of England. Instead there are some 14,000 commercial banks, the great majority of which have no branch office. Such branch banking as exists is on a very restricted scale, about half the branch offices being located in the same town as their respective head offices. In contrast to the single central banking institution which Britain and most other countries have there is a peculiar structure of twelve Federal Reserve Banks, though these are for the most important purposes now closely knit together by a central Board which, however, sits not in New York, the main financial centre, but in Washington, the political capital. The laws governing the operations of these banks are not confined to numerous elaborate Acts of the Federal Congress but have to be sought also among the legislative output of the forty-eight States.

Before examining the structure in detail it is worth pausing for a moment to glance at the historical background that has been responsible for moulding American banking in this unique way. Basically two main forces have been at work—the rapid opening-up of the country by free enterprise, mainly in the

nineteenth century, and the fear of a 'Money Trust'. At the same time there have been operating, partly in conflict with these original forces, the powerful economic forces that in other countries have driven small banks into a centralized system pivoted on a central bank in the country's most active financial centre. Under the Constitution both Federal and State legislatures have been held competent to regulate the business of banking, and a banking firm can therefore be subject both to the banking laws made in its own State and to the Federal banking laws.

As the frontier of settlement was pushed rapidly westward during the nineteenth century, the scarcity of capital in relation to opportunities for profitable employment showed itself not only in a great demand for loans but also in a chronic scarcity of circulating media. The two were, of course, fundamentally related—the best use for money always appeared to be the purchase from the older settlements of much-needed supplies—real working capital. There was thus an obvious opening for banks—banks that could make loans and could swell their profits by issuing their own notes for local circulation. The recent British immigrants were still a large part of the population, and these brought with them some acquaintance with banking. It is not surprising, therefore, that the progress of settlement was accompanied by the birth of numerous banks, many of them inevitably of the wild-cat variety, but many also sound, well-managed enterprises. The more unfortunate experiences of the

public with these banks naturally provoked efforts at governmental regulation. The earliest legislation was directed to securing the convertibility of local bank-notes into more widely acceptable forms of money. As deposit banking increased, the interest of the legislators was extended to protection of the depositors as well, first by insisting on certain reserves of more widely acceptable money, and later by more general supervision of bankers' assets. At first the individual States took most of the action. From 1863 onwards, however, the Federal Congress has also taken continuous action. It was at first supposed that the banks chartered under State law would seek charters under the new National (i.e. Federal) Banking Act, and that new banks would also prefer the National charter. This is not by any means how things have worked out, and more than half the banks existing to-day are still 'State banks'—i.e. banks chartered under State as opposed to National (Federal) law. For regulating the conduct of banks there are consequently forty-nine actually effective sets of banking law.

• The persistence of a large number of State banks can be, and frequently is, ascribed to a number of detailed ways in which the National banks are subject to more stringent regulation than are State banks.¹

¹ Among these differences one of the most important is that National banks *must* be members of the Federal Reserve System (which imposes obligations as well as affording privileges), whereas for State banks membership is optional. This is not by any means the only significant difference—else 1,800 of the 9,000 State banks would not now be members of the Federal Reserve System.

But there is one basic factor which more than any other accounts for this persistence of State banks—the universal restriction of branch banking. There can be little doubt that had nation-wide branch banking been permitted, the American banking system, like its English counterpart, would have become concentrated into relatively few undertakings spreading their branch networks over most of the country. To account for the restriction of branch banking—under both Federal and State law—we must refer to the fear of a ‘Money Trust’ which has been one of the dominating influences in American political attitudes to financial institutions. In part this has been just one particular aspect of the general antipathy of the free enterprise addict in America towards the growth of monopoly power—an antipathy that has found expression in many other fields as well as banking law. In banking history there has also been a particular feeling on the part of the debtor, scarce-money frontier against the entrenched moneyed powers of New York, New England, and the East generally. The American town and its surrounding country-side have therefore been generally against the outside domination of their local banks by their absorption in larger institutions rooted in the plutocracy of the East. State and Federal legislatures alike have therefore ruled generally against any but narrowly restricted branch systems. This prejudice has perhaps weakened somewhat during the twentieth century, when laws against branch banking have been slightly relaxed, but substantial

restriction remains; and it is in this century also that the anti-Money-Trust prejudice has been strong enough to colour the political background against which the peculiar federal structure of central banking institutions has been evolved.

The structure of commercial banking is, because of these historical forces, predominantly one of unit banks. There are about 14,000 commercial banks, having between them only about 4,000 branches. Of these branches, about half are in the same town as the parent office, and none of them is outside the State in which the parent office is situated.¹ But these essentially the unit banks are, like the unit banks in nineteenth-century England, linked together by the 'correspondent' system. A bank in a small country town has a 'correspondent' bank in a neighbouring city, while the city banks in turn have their own correspondents in the great financial centres—New York and Chicago. The actual network of links between banks is in fact rather more complex than this, but essentially it is a network linking practically all banks in the country directly or indirectly to the great New York banks. The function of the town correspondent is to facilitate clearing of cheques, to receive deposits of surplus funds or place them in the market, and to lend to the country bank or rediscount paper for it when the country bank needs more money for local use.

Thus it came about that through the correspondent

¹ Branch banking across State borders is prohibited by law.

network surplus funds of the whole country would flow into New York, while on the other hand it was on New York that the pressure of demand for money throughout the country would be centred. Slack trade in the country generally would mean that country banks, finding local lending difficult or unprofitable, would deposit more with their city correspondents, or get the money placed by the city correspondents on loan in the New York market; and this general flow of funds into New York would depress interest rates there. On the other hand, brisk trade in the country as a whole, or even the purely seasonal demand for more circulating money at harvest, would involve withdrawal of deposits from New York correspondents and demands on the latter for temporary loans to the country banks, so pulling up interest rates in the New York money market. The correspondent system thus meant that there was in practice a substantial pooling of banking funds, and the U.S.A. did enjoy one of the main advantages brought by branch banking. It also meant that New York acquired an influence over the whole country which was destined (as will be shown below) to force the eventual central banking structure into a more centralized form than Americans intended.

The system, so far described, of unit banks linked by a correspondent network to the New York money market, appeared, in the light of late nineteenth- and early twentieth-century experience, to lack elasticity, to fail to meet the legitimate requirements of trade

and industry, and, above all, to be incapable of avoiding periodical banking crises of the most extreme kind. After prolonged discussions and a formal inquiry by the *National Monetary Commission*, Congress passed the *Federal Reserve Act* of 1913, which did not change the existing structure but superimposed on it a peculiar chain of central banks, unified in some measure by a central board in Washington. This *Federal Reserve System* was viewed as a provider of 'elastic currency' and a dispenser of emergency funds to meet seasonal and other temporary requirements of member banks, though it was not long before the concept was enlarged to the formulation of national credit policy to moderate the trade cycle. The System was constituted a separate agency of the Federal Government, reporting directly to the Federal Congress. Under the supervision of a central (non-operative) *Federal Reserve Board*¹ there were established twelve Federal Reserve Banks. The capital of the Reserve Banks is subscribed by the member banks, which are all the National banks and those State banks which choose to be members. The Reserve Banks were designed to act as bankers' banks for their members—they were empowered to receive deposits from their members, to make loans to them, rediscount specified classes of paper, issue notes, &c., and they were to hold specified gold reserves against their note and deposit liabilities.

This peculiar central banking organization was

¹ In subsequent legislation the much-strengthened central board was renamed 'The Board of Governors of the Federal Reserve System'.

successfully launched shortly before the beginning of the First World War, and its early history was inevitably highly coloured by the exigencies of war finance. Although it proved in war conditions an extremely useful innovation it was not until the post-war boom and slump that it was really able to try its strength as a central bank. Through the twenties it was still feeling its way, sometimes with more confidence, sometimes with less. The development of the stock-market boom at the end of the decade presented it with problems on which there were important differences of opinion, and the System, perhaps partly because of these differences, proved unable to prevent the development of a complete collapse of the country's banking system early in 1933. The arguments of the late twenties and the events of the early thirties led to important legislation in 1933-5, modifying the form of the System and extending its powers. The main tendency of the new legislation was a centralizing one, and it is worth considering at this point how circumstances have forced the Americans, who quite deliberately tried to avoid centralization, to bring their system more nearly into line with the centralized systems of other countries.

When the Federal Reserve System was first established the intention was to set up a genuinely federal system. This was something that had not been done elsewhere, and the fact that it was attempted is perhaps evidence that the fundamental nature of central banking was not understood. Congress was

indeed engaged in an attempt to give American banking elasticity for meeting the needs of industry and commerce, particularly in times of seasonal or cyclical stress, and to do this consistently with the encouragement of 'sound banking' rather than by resort to the unsound elasticity that would lead to wild inflation. But in moulding the 'central banking' system that was to meet these requirements Congress reflected both the traditional prejudice against centralization of government and the fear that a compact group of eastern financiers might exploit the predominantly 'debtor' West and South. Also, there was the desire that the system should be kept closely in touch with the widely varying industrial, commercial, and agricultural interests of different parts of the country. Business men were to be directly represented on the controlling bodies, and to combine in a single group adequate representation of such scattered interests would have been quite unworkable. The Act of 1913 therefore established not a single central bank but twelve 'Federal Reserve Banks' spread over the whole country. As a co-ordinating central body there was to be merely a 'Federal Reserve Board' with the somewhat vague duty of supervising the Federal Reserve Banks. It is notable that this central Board was located not in New York, the *de facto* monetary centre of the country, but in Washington, where it would be most open to political pressure originating in any part of the country.

The force of circumstances has, however, been too

great for the original intentions to be realized. Certain centralizing forces have been continually at work and have been recognized by placing more power in the hands of the central authority, especially in the legislation that followed the banking crisis of 1932-3. These centralizing forces have all had their origin in the fact that, for good or ill, New York had become the monetary centre; but they were not allowed to result in enlargement of the power of the New York Federal Reserve Bank at the expense of the eleven other Federal Reserve Banks.

As the leading centre, New York had—and has—peculiar relations on the one hand with the rest of the United States and on the other hand with other countries. Through the correspondent system it normally and easily draws balances from all parts of the country—the banks in New York had become ‘bankers’ banks’ long before the Federal Reserve System was conceived, and they have maintained this position alongside the law-created federal system of bankers’ banks. In its correspondent relation with banks elsewhere, New York functions as a lender as well as a depository—banks elsewhere can, at a price which depends on prevailing conditions in New York, borrow from their New York correspondents. The readiness with which funds can flow into and out of New York, out of and into all other parts of the country, gives to lending rates in New York an importance not equalled by those in other cities having their own Federal Reserve Banks. This circumstance has

given the Discount Rate policy¹ of the New York Federal Reserve Bank a nation-wide importance. If this Bank, by altering any of its effective lending rates, pushes open-market rates in New York up or down, the attraction of New York as a depository is altered, and the rates at which outside banks can borrow from their New York correspondents will reflect the change. So, although Federal Reserve Banks elsewhere may have taken no action to raise or lower rates in their own Districts, there is a ripple right through the system as a result of the action taken by the New York Reserve Bank. Fundamentally the situation arises because banks are accustomed to look either directly or indirectly to New York at least as much as to their local Federal Reserve Banks as bankers' banks—the reserve source of cash and the convenient depository of surplus funds.

The result is that, whatever views may hold the field in Washington, the Discount Rate action of the New York Federal is the most effective rate action in the whole system. This would not have mattered if views in the New York Federal had normally coincided with those held in Washington. In fact, for various reasons there was frequently—and especially at some critical phases, as in 1928–9—conflict of views on the subject. The vagueness in the 'supervisory' functions of the Federal Reserve Board did not make the resolution of these conflicts any easier. There were frequent

¹ In the broad sense, covering all effective rates prescribed by the Federal Reserve Bank.

arguments, and a good deal of wavering. Eventually the position was cleared in the legislation following the 1932-3 crisis, power being given to the central Board in Washington not merely to sanction but also to initiate changes in the lending rates of the individual Reserve Banks. Thus the centripetal forces already in the System tended to concentrate influence over lending rates into the hands of the New York Federal Reserve Bank, and by political action the power was transferred explicitly to the central Board in Washington.

The history of control over open-market operations is closely similar. It seems that when the Federal Reserve System was established there was no thought of open-market operations as an important central banking weapon. The individual Reserve Banks in a sense stumbled upon the weapon in their search, in the post-1920 slump, for bigger profits.¹ Reserve Banks began buying on a large scale Government securities, which they could only do conveniently in New York, where the leading stock market is situated. These operations disturbed the market sufficiently to worry the Treasury. The fact that operations were in New York, quite apart from the direct effect of the New York Reserve Bank's own share in them, served to emphasize the general influence of the New York Federal. The operations could not get far without showing their effect on the general credit situation, and

¹ The fact that central banking institutions should have altered their course in order to secure higher profits shows, incidentally, how little central banking theory was understood by those operating the

the creation of fresh reserve funds (by payment for the securities) at the most sensitive point in the monetary system caused concern to the Federal Reserve Board in Washington. As in the case of lending rates policy, the reaction was not for the other Reserve Banks and the central Board to abdicate in favour of the New York Reserve Bank, but for power at the centre to be strengthened. In 1922 a non-statutory Open Market Committee, consisting of the Governors of four of the Reserve Banks, was established, and in October 1922 it began making recommendations to the individual Reserve Banks. This body was enlarged by successive changes in 1923 and 1930 to give voice to more of the Reserve Banks. In 1933 it was given statutory recognition but still had to rely on recommendations and the effect of central discussion. Eventually by the Banking Act of 1935 the Open Market Committee, henceforward to consist of the seven members of the Federal Reserve Board with five representatives of the Reserve Banks, was given full power to require a Reserve Bank to engage in or desist from specified open-market operations. The process of centralization had taken many years, but it was now complete—and it placed the ultimate control clearly in Washington, not in New York.

A third factor making for centralization has been the special position of the New York Reserve in relation to international affairs. Foreign exchange markets deal in New York dollars, not dollar balances in Atlanta or Minneapolis or even Washington. The

impact effect of international transactions—and the gold movements to which they give rise—is therefore felt in New York. Moreover, New York bankers, and among them naturally the responsible officers of the New York Reserve Bank, have, because of New York's position as an international financial centre, a special concern for what is happening to the monetary systems of other countries. It is inevitable that in guiding the operations of their own Reserve Bank, and in trying to influence the policy of the Reserve System as a whole, they should be more conscious of, and more careful for, the repercussions on foreign centres. In the nineteen-twenties this was particularly noticeable, the Governor of the New York Reserve Bank showing great interest in the attempt to restore the international gold standard. Other Reserve Banks were not so obviously concerned with international conditions, and thought almost exclusively in terms of the requirements of the domestic credit situation, which might well run counter to the needs of the international situation. The foreign operations of the New York Reserve Bank are specifically subject to supervision by the Board of Governors in Washington, and the business is partly 'farmed out' to the other Reserve Banks. But arrangements of this kind do not solve the problem of conflicting views resulting from divergent emphasis of interest, and the existence of conflicting views served to emphasize the special power of the New York Bank. Either more power or less had to be given to the New York Bank, and the

legislation of the thirties dealt with the problem by centralizing the real power in the Board of Governors in Washington.

Even the legislation of the thirties did not lead to a concentration of all supervision of the banking system in a single body, and there still remain other organs of government with various supervisory functions. The Comptroller of Currency, whose office dates from 1863, ^{was appointed in} is a quasi-independent official of the Treasury, appointed by the President with the approval of the Senate. He is responsible for chartering National banks and has to examine their activities regularly, administer failed banks, collect statistics, &c. He also serves on the Board of the Federal Deposit Insurance Corporation. His main activity is the examination of National banks, each one of which is thoroughly examined twice a year. The Comptroller and his staff are armed with the necessary powers for investigation of the banks' assets. If a bank does not comply with the Comptroller's recommendations, the Comptroller has power to publish them. He reports fully to Congress every year.

Then there is the Federal Deposit Insurance Corporation, established in 1933 and put on a permanent footing by the Banking Act of 1935. Its business is to insure for the depositors their deposits with the commercial banks. All participating banks are required to pay to the Corporation an annual premium of one-twelfth of one per cent. of their total deposits. In return for this premium the Corporation guarantees to the

depositors repayment of their deposits up to \$5,000 for each depositor. All banks which are members of the Federal Reserve System have to participate, and non-member banks may be admitted after examination of their history and solvency, capital structure, management, custom, &c.¹ In fact, over 90 per cent. of all commercial banks are insured, and 45 per cent. of the deposits of insured banks are within the insurance limit of \$5,000 per depositor. The capital of the Corporation was provided partly by the Treasury and partly by the Reserve Banks. It has power to examine any insured bank and has certain specific regulatory powers affecting the capital structure, branch establishment, and amalgamations of insured banks.

Yet another examining body has been the *Reconstruction Finance Corporation* established in 1932 to help banks that were in the main sound to overcome temporary difficulties due to freezing of assets in the economic crisis following the 1929 boom. (It had eventually much wider functions, helping to re-finance railways, insurance companies, and agricultural and industrial concerns.) It made temporary loans and particularly purchased preference stock or debentures of banks whose capital needed strengthening. In connexion with this work the Reconstruction Finance Corporation assumed the right to examine every

¹ It was originally intended to exclude, after a period, all non-member banks, so using the important bait of deposit insurance to get more banks into the Federal Reserve System. Traditional political feeling against such a centralizing step was, however, too strong, and the time-limit for non-member bank participation was repealed.

aided bank at least once a year, to remove directors and managers, to put in its own officers, &c. As the crisis passed and trade revival got under way the Reconstruction Finance Corporation was able to, and did, gradually withdraw from its banking activities, and by the end of the war its work in this field was practically ended.

The United States *Treasury* has itself had direct licensing powers, which could be used for regulating commercial banking, ever since the 1933 banking crisis; but these powers have not been used recently. The more important powers of the Treasury are in relation to gold, which remains in a mythical way at the basis of the monetary system. All gold flowing into the country has to be sold to the Treasury, which issues gold certificates to the Federal Reserve Banks. The latter are required to hold against their total sight liabilities (notes and deposits) at least 25 per cent. 'reserves' of gold certificates. So far the Treasury is automatic—but it has in addition the power to sterilize or de-sterilize gold, a power which it exercised (in both directions) in the later thirties. Sterilization is achieved by offsetting movements of the national debt—when gold is to be sterilized, securities are sold to the public and the cash proceeds are held by the Treasury as an idle balance, to be released when the gold is de-sterilized.¹ At a period of large gold move-

¹ In English terms, a gold influx can be offset by an equal increase in 'Public Deposits' at the Bank of England. For more detailed explanation of the special sterilization process see pp. 50-1 below.

ments the effect which the Treasury operations can exert on the cash reserves of the banking system is great: indeed, in its 1938 Report the Board of Governors of the Federal Reserve System remarks (one can almost detect a plaintive tone): 'Under existing conditions the Treasury's powers to influence member bank reserves outweigh those possessed by the Federal Reserve System.' It is a little odd that people have not noticed that gold movements are not an essential part of Treasury controls of this kind—any Treasury that varies its idle balances has influence on the money market situation, as was recognized in nineteenth-century London when the Bank of England admitted the necessity of special measures at the 'quarterly shuttings' when Treasury balances ran up. That, however, is by the way. What is important for our immediate purpose is that the United States Treasury has great power to vary the cash basis, and that it has exercised this power. What is done by the bankers, both in the Federal Reserve System and in the commercial banks, is willy-nilly subject to ultimate Government control.

II

THE STRUCTURE OF COMMERCIAL BANKING

AMERICAN commercial banking is subject to a considerable volume of legislation, both Federal ('National') and State. Banks can only operate if they are specifically authorized under either Federal or State law. Those banks chartered under Federal law are called National banks, while those under State law are called State banks. At the end of 1946 there were just over 14,000 commercial banks, of which 5,000 were National banks, the remaining 9,000 being State banks. Among the most important restrictions imposed by both sets of law are those on the opening of branches. State law varies greatly on this point, California at one extreme allowing branches to be opened anywhere in the State, while Wisconsin (among others) at the other allows no branches at all. The Federal law depends on the State in which a National bank is situated, there being some measure of assimilation to State law. In some places formerly independent banking offices can, when absorbed by other banks, be maintained as branches of the latter, even where the opening of *new* offices as branches is prohibited. At the end of 1946 there were less than 4,000 bank branches in the whole country; about 1,770 of these belonged to National banks, and the remaining 2,200 to State banks.

Neither State nor National banks may have branches beyond the boundaries of the home State. This does not prevent banks from being associated in groups or chains with other banks in other States, and exceptionally this does occur. In general, however, it is fair enough to say that banking firms are restricted to single States, and in the majority of States to a single office.

In size there is great variation. At the end of the thirties two-thirds by number of banks had each less than a million dollars of deposits, and these accounted for only 7 per cent. of the total deposits in the country. Of the remaining third (nearly 5,000) only 133 had deposit liabilities exceeding \$50 millions each, these 133 accounting for 58 per cent. of the total deposits. Since 1939 the dollar amounts have changed greatly but the proportions are probably not very different to-day. The swing in the balance of industrial activity towards the Pacific coast may have made for slightly greater spread—though its main effect would be to shift the balance between the larger banks themselves rather than to shift it from the larger banks as a group to the smaller banks. The range in the sizes of banks is continuous—one cannot just say there are so many very large banks and so many small banks; but one can say that very roughly two-thirds of the resources are held by one-tenth of the banks.

The great banks are, of course, in the largest cities, particularly those where branch banking is allowed—and some of the most highly urbanized States do

allow branches within the home town, though not outside it. California and New York State provide the best examples of very large branch banks. California allows branches anywhere in the State, but New York only branches within the home town. In California Los Angeles has about twenty banks, five of which have the great bulk of the business. Of these five, four have their head offices in the town itself, three of these having numerous branches, while the fourth is a one-office bank. The fifth big bank operating in the town is a San Francisco bank, which has a large number of branches in Los Angeles as well as in San Francisco itself and other Californian towns. In San Francisco there are, besides this one, two other large branch banks, besides a scattering of smaller 'unit banks'. Other Californian towns are provided both with branches of the State's great branch banks and with unit banks.

The populous States of New York, Pennsylvania, and Massachusetts are among those which allow branches in the home town but not outside. New York City has in fact practically all its banking business concentrated in the hands of about ten large branch banks, but even these are concentrated to some extent in their own particular parts of the city, the Manhattan banks on the whole not extending to, say, Queens or the Bronx, which have their own branch banks. The result is that going about Manhattan the traveller gets the impression of a far greater concentration of banking than it is possible to get in London

(which has the widest possible range of British banks all represented in a few square miles). When he goes over to Queens he begins to see that there are some other banks, but it is only when the traveller goes right outside New York City that he can finally appreciate that he has not encountered *all* the banking firms of the United States!

In Boston (in Massachusetts, also an intra-city branch State) there is again considerable concentration, one bank with a large number of branches actually having more than half the total resources.

When the phrase 'a large number of branches' is used about any American bank, it means something quite different from the 'large number of branches' of the Big Six in English banking. Only eight banks in the whole country have more than fifty branches each, the largest having between a hundred and two hundred each. Three-quarters of the banks having branches have only one or two each. About half the branches are in the banks' home towns. Consequently, though many other large towns (notably Detroit, Pittsburgh, Baltimore, Philadelphia, and Washington) like those mentioned above have branch banks doing a large (and sometimes preponderating) part of the total business, the small American town is much more often like Chicago, where there is no branch banking at all.

Chicago in fact presents the extraordinary spectacle of having only two banks in the central part of the city, and these are not allowed to have any

branches. Not merely, that is to say, are there only two banking firms; there are only two banking *offices* in the main part of the city.

The legal obstacles in the way of development of branch systems have encouraged the adoption of looser forms of combination which it has now become conventional to describe as 'chains' and 'groups'. 'Chains' are associated by being owned or controlled by one individual or by having interlocking directorates: the description seems to be applied wherever association is dependent on the relationship of one or more particular *persons* to the banks comprising the chain. A 'Group', on the other hand, has a central 'holding company'—a corporation holding a controlling majority of the stock of each bank in the group.

Neither of these forms of association is specifically prohibited by Federal law, though the prohibition (in the Banking Act of 1933) of purchase of corporate stocks by banks hinders the formation of groups, since a banking corporation cannot build up a group simply by purchasing majority holdings in other banks. Very few States place any restrictions in the way of either groups or chains; and where they do exist, such restrictions are less severe than those imposed by the same States on the opening of branches. A chain or group can extend beyond State boundaries, and sometimes does so.

The relative absence of legislative restriction of chains and groups is responsible for a relative lack of

precise information about them. The following paragraphs are, however, based largely on an authoritative study published by the Federal Reserve System in 1941.¹ One would have expected chains and groups to be most in evidence where branch banking is prohibited or at least severely restricted. In fact, however, California and New York have numerous chains and groups. Elsewhere they appear to have sprung into existence more often than not where unit bank failures in the twenties left gaps. A town bank would acquire control of the little unit banks of the surrounding agricultural districts. In these ways the majority of chains developed, extending over quite small areas: in 1939, 78 of the 96 chains believed to exist did not extend beyond State boundaries. Of the few more widely scattered chains, some had only a very short life. There was one spectacular chain including banks on both Pacific and Atlantic coasts, but the typical chain is almost as highly local an affair as is the typical American bank.

Groups (i.e. those associations headed by holding companies) are common in the Far West, in Massachusetts, and in Rhode Island. Elsewhere they are rare. In 1939 there were believed to be 41 groups. These covered 427 banks, but among them were some of the larger branch systems, 869 branches (about a fifth of all the bank branches in the country) being

¹ C. E. Cagle's chapter, 'Branch, Chain and Group Banking', in *Banking Studies*, published by the Board of Governors of the Federal Reserve System.

covered by these groups. The 41 groups had about \$7,000 millions of deposits, in contrast to the mere \$900 millions in chain banks.

The business relationships between the individual banks in these groups and chains apparently vary greatly. Most commonly they are used for spreading loans to firms which are too big to be safe borrowers from the single banks. Sometimes the people at the top take relatively little interest in the detailed methods employed by the banks, whilst in other cases close control is maintained and a measure of standardization is introduced. Occasionally use is made of the enlargement of the clientele to get economies of large scale in ancillary services such as investment counsel. But in general it is probably fair to say that the promoters and owners of chains are thinking more of the spreading of loan risks and the general enlargement of their business than of the possibility of standardized large-scale methods of operation. It is therefore hardly surprising that there is no sign of the absorption of most American banks in a few nation-wide groups or chains rivalling the nation-wide branch systems of other countries.

Apart from these particular associations through community of ownership, the thousands of banks are linked together by the correspondent system, whereby surplus funds flow from the little country banks to large town banks and so ultimately to Chicago and New York, while, exceptionally, accommodation loans by town correspondents provide movement in the

opposite direction. The correspondent connexion had in the past great importance in providing a mechanism for remittances from one part of the country to another—indeed, from one town to the next—but since the establishment of a convenient, rapid and cheap remittance mechanism by the Federal Reserve System this aspect of the correspondent relationship has declined in importance.

Sometimes the New York correspondent of an outside bank would undertake to place short loans in the open market on behalf of the out-of-town bank, as an alternative to accepting deposit of the out-of-town bank's surplus and then lending the money out in the market on its own account.

The structure of the correspondent system may be seen by a glance at the list of 'Reserve Cities', because towns are so classified having regard to the deposits by outside banks in the banks of these towns. There are about 60 of these Reserve Cities, including such places as Boston, Baltimore, Cleveland, Kansas City, Houston, Pittsburgh, Richmond, Topeka, and Washington. Then there are the two 'Central Reserve Cities', New York and Chicago, where banks are depositaries for banks in the Reserve Cities. The Chicago banks in turn place large amounts in New York, making it the central money market for the whole country.

In spite of all these ways in which banks' offices may be associated with each other, it remains true that, as compared with most other countries, American com-

mercial banking scarcely justifies the use of the word 'structure' in the title of this chapter. Typically, every town has its own bank or banks, and the traditional hostility of the American people to the rise of a 'Money Trust' has been, in this respect at least, almost completely successful.

III

THE BUSINESS OF THE COMMERCIAL BANKS

AT the end of 1946 the 14,000 commercial banks had deposit liabilities totalling about \$140 billions. Of this total, \$12,656 millions were inter-bank deposits, representing the correspondent side of the business. \$92,446 millions of the remainder were Demand Deposits—ordinary chequable deposits of individuals, held for both personal and business purposes, and of corporations and Local, State, and (for some purposes) Federal Government agencies. The remaining \$33,930 millions were Time Deposits, or, as we should call them in England, Deposit Account deposits—balances withdrawable only at notice. As will be seen in Chapter V below, the distinction between Demand and Time Deposits is in America a legal one, of significance for cash reserve purposes. The Time Deposit is subject to certain restrictions designed to prevent banks from dressing Demand Deposits up as Time Deposits.¹ The Time Deposit side of the business was much cultivated by banks in the nineteen-twenties, when special ‘Savings Deposits’ Departments were often established.

Subject to these legal restrictions, the services performed by banks for depositors are closely parallel to those performed by English banks. Payments to any

¹ See p. 78 below. (3)

persons in the United States are facilitated by the clearing system, in which both the correspondent network and the Federal Reserve System play important parts. 'Par clearance'—i.e. clearance of cheques without deduction of commission by the drawer's bank—is not quite universal, but it is gradually approaching that point—the Federal Reserve System has always tried to encourage its spread. Apart from that, the practice of charging for operating an account is very much the same as in England, save that variety of banks makes for greater variety in detail. It seems, too, that the existence of many competitive banks tends to reduce the charges made to large corporations, which can and do threaten to change their bankers perhaps rather more readily than an established English company would do.

For other services primarily provided as conveniences attractive to depositors, a distinction must be drawn between the 'Department Store' development of the great City banks—particularly the New York giants—and the sideline services offered by the general run of small town and country banks. Direct foreign connexions, to take an extreme example, are offered by a very few of the New York giants, who have foreign offices or agencies mainly confined to Latin America. Their experience in the field has not encouraged further exploitation of foreign fields, and it would in any case be technically inconvenient for the general run of banks to maintain foreign branches of their own.

Bankers in the United States, as elsewhere, have been ready to act as investment advisers for their customers, and a natural development of this, in a country lacking the historical accidents of the London capital market, was for the banks to become in effect issuing houses for the distribution of securities to the public. During the nineteen-twenties there was great development of this business, the larger banks setting up special departments sometimes with a widespread net of salesmen hawking the securities through the country. After the 1929-33 crash, however, banks were compelled, by the Banking Act of 1933, to divest themselves of all this business, and their security departments or security affiliates were either wound up or hived off to form independent corporations. The banks of course continue to offer investment guidance to their customers, the larger ones maintaining for this purpose specialized departments with research economists, statisticians, and other expert advisers.

Executor and trustee work is more widely undertaken, but here again it is in general only the large institutions that make it a specialized business calling for specialized departments. In the smaller banks much trustee work is undertaken, but in these it is rather a sideline of the general banker than the full-time work of an expert department. The very small banks also augment their incomes with a number of side-counter services—as travel agents, insurance agents, and in arranging mortgage business for customers, for example.

These various lines of business are, of course, purely ancillary. Apart from the business of receiving, cashing, and transferring deposits, the main concern of the banker is with his loans and investments. At the end of 1946 the totals of these main groups of banking assets were, for all commercial banks, in millions of dollars:

Investments: United States Government securities	74,780
" Other securities	8,091
Loans	31,122

For all *insured* commercial banks the slightly smaller total of loans, \$30,733 millions, is classified in the Federal Reserve statistics as follows:

	<i>\$ millions</i>
Commercial (including open-market paper)	14,016
Agricultural	1,358
Loans for purchasing or carrying securities:	
To brokers and dealers	1,517
To others	1,609
Real estate loans	7,103
Consumer loans	4,031
Other loans	1,098

A reclassification along lines less strange to users of English banking statistics might be this:

	<i>\$ millions</i>
1. <i>Investments</i>	
(a) Government securities with more than one year to run	53,000
(b) Other securities	8,000
2. <i>Money market assets</i>	
(a) Very short-term Government paper	22,000
(b) Stock Exchange loans	3,100
(c) Bankers' acceptances (equivalent to British 'bank bills')	200
(d) Commercial paper (no British equivalent)	200

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3. <i>Other Loans</i>	\$ millions
(a) Term loans	4,600
(b) Other commercial and agricultural loans to customers	11,300
(c) Instalment paper	4,000
(d) Loans on real estate	7,100
4. <i>Cash Assets</i>	34,223

It should be remembered that these are *totals* for almost all commercial banks, and that there is in the United States no 'typical' commercial bank whose position can be deduced by dividing the above totals by a number. The business of a small country bank differs greatly from that of a large town bank. The banks in the Central Reserve cities (New York and Chicago) are 'more liquid' right through: not only do they (compulsorily) hold higher cash reserves at the Reserve Banks (though they hold rather less in vault cash—till money—than do country banks), but also the maturities of their Government securities are on the average much shorter. Whether their loans are more liquid than those of country banks is difficult for an outsider to judge, but certainly, as a counterpart to their higher cash ratios, their loans/deposits ratios are lower.

Since the beginning of the Second War the balance sheets of the commercial banks have shown a great acceleration of a trend already pronounced in the thirties. Whereas at the end of 1941 United States Government securities held totalled \$21,808 millions, other securities \$7,225 millions, and loans \$21,711 millions, at the end of 1946 the totals were \$74,780, \$8,091, and \$31,122 respectively (all millions). Like the English banks the American banks have experienced

a great increase in the proportion of Government securities to total earning assets, though the earning power of the banks has been fortified not merely (as in England) by the absolute increase in security holdings but also (unlike the English banks) by an absolute increase in loans which looks small only by contrast with the jump in Government securities.

The banks, in increasing their holdings of 'Governments', have followed the normal banking practice of preferring 'shorts', in which the danger of capital depreciation is minimized. In round figures 30 per cent. of their holdings have less than a year to run before maturity: this part includes United States Treasury Certificates of Indebtedness and Treasury Bills, and those Notes and Bonds which, though originally longer term, are nearing their maturity dates. Another 33 per cent. are bonds with more than one year but less than five years to run; 30 per cent. are within the group 5 to 10 years, while those over 10 years from maturity constitute less than 8 per cent. of the total.¹

The banks constitute, of course, a very large part of the whole market for United States Government securities. In 1946 it was estimated that of the total marketable United States Government securities held outside the Federal Reserve Banks, \$160 billions, the commercial banks held \$77 billions, or nearly half. With this development the bond market has become a far more

¹ These figures refer to 31 July 1946 and are taken from the *Federal Reserve Bulletin*, October 1946.

important section of the open money market. The big New York banks (and others in a much smaller way) manipulate their bond portfolios freely to adjust their cash requirements from week to week. Considering this and the balance-sheet implications of variations in bond prices, the Reserve System was already before the Second War coming to regard the maintenance of stable conditions in the bond market as a major object, and during the war its cheap-money policy was implemented primarily by measures for the automatic stabilizing at low rates of the bond markets. More recently suggestions for a dearer money policy have been qualified by fears—perhaps exaggerated¹—of the balance-sheet losses of banks heavily loaded with bonds.

Besides United States Government obligations the banks hold some \$8 billions in other securities. More than half of these are obligations of the individual States and of local government authorities.

The 'bankers' acceptance' or 'bankers' bill' has been deliberately fostered in imitation of its counterpart in London. The original legislation establishing the Federal Reserve System empowered banks generally to accept bills drawn upon them, and made such accepted bills—the 'bankers' acceptances'—eligible for purchase by the Reserve Banks. It was hoped that this would encourage the growth of a highly liquid money market asset to compete with, and perhaps supplant, the Stock Exchange as an attraction for

¹ Since a large proportion of the paper held is very short.

temporarily surplus funds. The new paper did in fact increase in volume rapidly, and by the end of the twenties had outstripped 'commercial paper' in volume; but the growth was alongside and not in replacement of the market for call money on the Stock Exchange, which in the boom of 1928-9 reached unprecedented dimensions. Since that time both bankers' acceptances and commercial paper have greatly declined, the amounts outstanding now being about 200-50 million dollars of each—less than half the amounts outstanding in the twenties (when commodity prices were much lower than now). The business is, as one would expect, very largely concentrated in the hands of the big New York banks—only about a hundred of the 14,000 banks participate, and most of them are in New York.

The American bankers' acceptance is exactly like its London counterpart, in being an undertaking to pay a debt (normally arising from a purchase of goods) at a future date, the undertaking being covered by the 'acceptance' stamp put on it by the debtor's bank. When the debtor's bank has (by the act of 'acceptance') guaranteed payment, the bill becomes readily marketable. These bills are used to finance import and export trade, and to a far less extent the holding of goods in warehouse. The cotton, sugar, and coffee trades account for a large part of the business. Its seasonal peak is normally reached in the late autumn and early winter, reflecting the maximum movement of cotton and other commodities. In

earlier days this business was, of course, financed—probably to much the same extent—by bank loans of a more direct and personal kind, the development having been merely the substitution of a more for a less shiftable form of bank asset.

The bankers' acceptances are attractive to many other holders outside the banks—commercial concerns with temporarily surplus funds and charity organizations of one kind and another seeking short-term investments at rates above those obtainable on Time Deposits. The total volume in such hands is, however, probably very small. In the inter-war period a very large proportion of the outstanding acceptances found their way (mostly at the initiative of the member banks) into the portfolios of the Reserve Banks, but with the huge growth of handy Government paper during the last ten years this has ceased to be the case, and about three-quarters of the outstanding bankers' acceptances are nowadays held by the commercial banks.

'*Commercial paper*' is an asset peculiar to the United States. When an American business concern wants to borrow temporarily it can, if its standing is fairly good, place 'commercial paper' in the New York money market. This commercial paper constitutes a claim, to such and such an amount, on the general assets of the firm. This contrasts with the bankers' acceptance, which is linked to a particular transaction and is secured by the actual goods passing in this transaction. Although, when originally 'placed' by

the borrowing firm, commercial paper may find a home in the portfolio of any bank that likes the look of it, once placed it does not come into the market again. By convention the paper is held until maturity by the original purchasing bank, though it may be rediscounted at a Federal Reserve Bank. In liquidity it is thus practically equivalent to the ordinary English bank advance, the chief differences being that the bank advance is elastic in amount and is dependent on a banker-and-customer relation between lender and borrower.

A generation ago commercial paper formed a very important part of the banker's portfolio, but it has greatly declined in relative importance, partly because the officially fostered bankers' acceptance has sometimes replaced it, and partly because large industrial concerns have found it easy to raise money by issuing common stock (ordinary shares).

The *yields* of these money market assets all lie within a very narrow range and are not in present circumstances far above those on Government paper of similar maturities. In mid-1947, for example, 90-day bankers' acceptances quotations in New York averaged 0·81 per cent., against 0·375 per cent. for 3-months Treasury bills. Prime commercial paper, 4- to 6-months, was quoted at 1·00 per cent.; United States Government certificates of indebtedness, 9- to 12-months, averaged 0·85 per cent. Stock Exchange call loan renewals were then quoted at an average of 1·38 per cent.

About half of the total loans (\$30 billions) by commercial banks are ordinary advances to corporations, individual traders, farmers, &c.¹ Loans to agriculture are separately classified, and total \$1,350 millions—rather less than a tenth of the whole of this group. The terms of these loans to farmers are not unlike those prevailing in England, varying very much from one case to another—but they also vary with the size of bank, the smaller banks on the whole charging higher rates and confining themselves to the smaller business. Among the commercial loans there is, as one would expect, great variety as to repayment and collateral conditions and interest rates charged.

In repayment conditions the American banks have developed a system of medium- and long-term loans known as *Term Loans*. The term loan is made directly to a business concern, and repayment arrangements extending over a period of more than one year are agreed at the time of the loan. More often than not repayment is by agreed instalments. The detailed conditions of the loan are generally set out in a formal agreement. The larger term loans are generally not covered by any specific collateral, the lender being satisfied with the probable earnings and prospective condition of the borrower generally—though in the agreement the borrower may be required to pledge himself to prudent finance in more or less specific terms. The smaller term loans are often for the

¹ A generation ago the proportion of bank loans closely tied to industrial and commercial activity was much higher than it is to-day.

purchase of equipment which is pledged as collateral security; some others are secured by real estate.

These term loans became popular in the period of banking adjustment between the 1933 crisis and the beginning of the Second War. In part they replaced ordinary short-term bank loans informally understood to be renewable for a considerable time, and to this extent the banks were simply protecting themselves by formal agreements regulating their business with customers to whom they would, in any event, have been lending. But in part the term loans replaced corporate bonds or debentures, thus altering radically the channels through which business firms were drawing their capital, and increasing the direct influence of the banks over business firms. This latter source of growth has been particularly important in the renewed expansion of term loans since 1945. Large corporations have, especially at times of weak stock markets, chosen to pay off high-cost bonds and preferred stock, replacing them by term loans, in blocks as large as 50 million dollars, with interest rates as low as $1\frac{1}{2}$ per cent., and maturities as long as ten years. In the reconversion period following the end of the recent war there has been extensive use of term loans for financing the establishment of new small and medium-size businesses, and it is possible that the development of this temporary market will prove to be the forerunner of a permanent popularization of the term loan in the financing of the smaller businesses.

The formal arrangements which characterize this

particular type of bank loan make it possible for the loan to be spread over a number of co-operating banks. In fact, measured by dollars, one-third of the term loans are made jointly by combinations of banks—sometimes as many as twenty or thirty participating in one loan to a business. This co-operative lending is generally organized by the large New York and Chicago banks, but the participants often include both large and small banks outside, particularly those in ‘correspondent’ relations with the organizing banks. In this way the ‘unit banks’ of the U.S.A. secure some of the advantage of risk-spreading enjoyed by the great branch banks of other countries.

Security for Loans to Business

Of the total amount of business loans about half is covered by collateral security of some kind. The collateral used is similar to that used in England—real estate, plant and equipment, warehouse receipts, Stock Exchange securities, life insurance policies, and so on. During the inter-war period warehouse receipts and life insurance policies were becoming more commonly used than previously, while since the war the pressure to re-equip peace-time industries has led to a relative increase in liens on plant and equipment (by aviation corporations, for example).

The type of collateral used for a particular loan depends partly on the nature of the borrower’s business, but also on the size of the business. At one extreme the large corporation with a national reputa-

tion can generally borrow without putting up any collateral at all—partly because its credit position is publicly known to be good, but partly also because it is able to play off one bank against another and against non-banking lenders (e.g. insurance companies). To the extent that collateral is used in lending to large firms, the banks generally depend on Stock Exchange securities or general liens on inventories; and this colours the whole collateral habits of the larger banks, since their business is mainly with the larger firms.

During the thirties, in their search for risk-reducing expedients consistent with sharing in the shrinking business of a competitive market, the banks turned on a considerable scale to the use of 'accounts receivable' as collateral, especially when lending to medium-size firms. This remains a widely used type of collateral; but legal disabilities are sometimes involved, and the bankers' relative dislike of it is reflected in the somewhat higher interest rates charged where this is the collateral used.

Plant and equipment and real estate serve as collateral, mostly in lending to small firms, especially those early in their careers and needing accommodation on a fairly long-term basis. Rather higher rates are, as one would expect, charged on such loans than for purely temporary accommodation covered by Stock Exchange securities.

Interest Charges on Business Loans

During the nineteenth century the regional pattern

of interest rates in the United States was the characteristic pattern of all 'new' countries—low rates in the commercial centres in closest contact with the outside world, higher rates up-country, and extremely high rates on the frontier of settlement. The disappearance of the frontier, the completion of the network of transport and communication, and the considerable integration of the banking system have tended to eliminate the regional differentiation, and a Federal Reserve inquiry in 1946¹ showed that the true regional differentiations remaining are very slight. The wide range (from 1 to 13 per cent.) in the rates of interest charged on business loans was shown to be chiefly related to the varying sizes of loans, large loans carrying lower rates than small loans. To a less extent the rate of interest is influenced by the size of the borrower, a borrower whose total business resources are large getting his bank loan (of a given size) at a lower rate than the small firm borrowing the same sum. The class of collateral security (if any) offered also has considerable influence on the rate charged. All these factors have their influence on interest rates in all parts of the country, as in other countries. Because large loans to large firms offering good security are actually made most commonly by the great city banks, the impression is easily created that bank loan accommodation is much cheaper in New York and Chicago than in the small rural communities of the South and West. This impression was fair enough a hundred

¹ Reported in the *Federal Reserve Bulletin*, July 1947.

years ago—even perhaps fifty years ago—but it is illusory to-day, when comparable loans to comparable borrowers offering comparable security are almost equally cheap anywhere in the country. Broadly speaking, that is to say, banking accommodation is a service obtainable at standardized charges throughout the country.

IV

THE FEDERAL RESERVE SYSTEM

I. CONSTITUTION AND GOVERNMENT

THE Federal Reserve System is a unique central banking system established by the Federal Reserve Act of 1913. This governing statute was framed after long discussions about the need for an 'elastic banking system' after the series of nineteenth-century banking crises and particularly the severe one of 1907. It has been frequently amended, most substantially by the Banking Act of 1935, framed in the light of the System's experience during the late twenties boom and the banking crisis of 1933.

At the centre of the System, in Washington, is the *Board of Governors*, since 1935 clearly the seat of real power over the whole System, and the nearest approach which the United States has to the Court of Directors of the Bank of England. One particular central banking function is controlled by a statutory *Federal Open Market Committee*, the majority of which consists of the Board of Governors. Thirdly, there is the *Federal Advisory Council*, having no executive powers, and completely different in membership from the Board of Governors. Then, located at the twelve 'District' centres, are the twelve *Federal Reserve Banks*, with directors distinct from the central Board of Governors, but represented on the Federal Open Market Committee and the Federal Advisory Committee. It is

these Federal Reserve Banks that have most (but not all) of the contacts with the *Member Banks*, which are the thousands of commercial banks (but not *all* the commercial banks in the United States) up and down the country, whose operations are the direct object of the ordinary central banking operations engaged in by the Federal Reserve System.

The System is in no sense part of the United States Treasury or other Government department. It is a separate agency of the Federal Government, and reports directly to the Federal Congress. The word 'report' here is appropriate: the Board of Governors presents to Congress every year a very full report not only describing the general banking situation and the System's operations during the year, but also containing detailed minutes of meetings of the Board. The entire System operates in a blaze of publicity such as would appal English bankers—it is not certain that advocates of more publicity in England would think it wise to go as far as the Americans do in this.

The *Board of Governors* consists of seven full-time members, each member being appointed for a term of fourteen years,¹ not renewable. Its main legal powers fall into three classes:

1. It regulates certain fundamental central banking activities of the Federal Reserve Banks.

¹ After this was settled in the 1935 Act, the members were appointed for varying periods so that one should retire every two years. It is therefore not yet strictly true that the seven members are appointed for fourteen-years terms.

2. It exercises certain general supervision of the government of the Federal Reserve Banks.
3. It regulates certain financial transactions throughout the country, both inside and outside banks which are members of the System.

1. *Powers relating to Central Banking Operations*

(a) Most important among the first powers is the final authority over discount and other interest rates applicable to direct transactions between the Reserve Banks and the member banks. The central body in Washington has from the first had some general supervisory power; but since 1935 the Board of Governors has specifically been empowered not only to give or withhold approval of a proposal by a Reserve Bank to alter its discount rate but also to initiate changes. That is to say, the Board of Governors in Washington can call upon the Reserve Bank in, say, New York or Chicago or San Francisco to change its discount rate.

(b) Secondly, the Board of Governors is empowered to prescribe, within certain limits, the legal minimum cash ratios for member banks. These ratios are of member bank deposits at the Reserve Banks to customers' deposits at the member banks.

(c) The Board is empowered to prescribe *maximum* rates of interest on Time (i.e. notice) Deposits and Savings Deposits.

(d) The Board supervises the foreign business of the Reserve Banks (in practice done by the New York Bank).

2. *General Supervision of Government of Reserve Banks*

(a) The Board appoints one-third, including the Chairman, of the directors of each Reserve Bank. It also has to approve the appointments of the chief officers of the Reserve Banks, so that it has substantial control of the governing personnel.

(b) The Board supervises the Reserve Banks' examinations of member banks.

3. *Regulation of Financial Transactions throughout the Country*

Besides regulating transactions between Reserve Banks and the member banks, the Board of Governors has in recent years been given power to regulate certain transactions entirely outside the System. There are three of these, the first of them being really an extension of central banking control to cover non-member banks, while the other two are more radical innovations in central banking.

(a) The maximum interest rates on Time and Savings Deposits fixed for member banks are applicable to all commercial banks.

(b) Under the important Securities Exchange Act of 1934 the Board of Governors is required to make regulations restricting loans for trading in securities. These regulations are binding on all persons dealing in securities registered at the recognized security exchanges. The regulations are reinforced by parallel restrictions on security trading loans by banks—not merely member banks, but all banks.

(c) Since 1941 the Board of Governors has regulated the major part of hire-purchase credit transactions, its powers applying directly not merely to the banks but also to thousands of dealers and consumer finance firms all over the country.

Recent developments of these major activities, and of the field covered by the Federal Open Market Committee, are discussed below. In listing them here it would be wrong to imply that all the activities of the Board and its officers have been covered. The Board also, for example, maintains a considerable and highly qualified research staff, whose work is evident in the *Annual Report* and more particularly in the monthly *Federal Reserve Bulletin* and occasional papers issued by the Board. The compilation of statistics—not only banking statistics, but also industrial, commercial, and other statistics of use in reviewing credit policy—is itself a substantial body of work, undertaken by the Board's staff in Washington, but drawing, of course, on returns sent in by the Reserve Banks and constituent member banks.

The *Federal Open Market Committee* has a constitution regulated by the Banking Act of 1935 as amended in 1942. It consists of the seven members of the Board of Governors with five representatives of the Reserve Banks. One of these representatives must be from the New York Reserve Bank, which has the predominant interest in open-market operations, since they are necessarily conducted in the New York markets. The Committee has mandatory power—that is, it can

require any Federal Reserve Bank to engage in specified open-market operations.

It is most curious to find a special body of this kind managing one of the cardinal weapons of central banking. It results from efforts to co-ordinate operations that were originally left entirely within the discretion of the individual Reserve Banks,¹ and in the gradual concentration of power in the centre a substantial element of Reserve Bank representation has been maintained. But the fact that seven of the twelve members of the Committee constitute the Board of Governors itself ensures that the decisions of the Committee are under the control of the Board of Governors and are properly co-ordinated with its other central banking activities.

The *Federal Advisory Council* is the third body at the centre. It consists of twelve representatives of the member banks, each representative being chosen by the Reserve Bank for the Federal Reserve District. That is to say, from all member banks in, say, the New York Federal Reserve District, one man is chosen by the directorate of the New York Federal Reserve Bank to serve on the Federal Advisory Council. There is no representation of the Reserve Banks themselves. As its name implies, the Council has no executive functions, but serves purely to keep the Board of Governors advised directly of the views of member bankers. In a great and varied country in which regional interests are strong and varied, the existence of such an advisory

¹ See pp. 71 et seq.

body has considerable political importance now that it has been thought necessary to concentrate the actual executive power in a strong central body.

It should be appreciated that these three bodies at the centre of the Federal Reserve System are not the only bodies at the Federal centre having power over monetary and banking matters. The United States Treasury has powers which could completely swamp the operations of the Reserve System. It had, until 1945, power to vary the price of gold, so altering the foreign exchanges and the currency basis of all Federal Reserve operations. The manner in which the Treasury exercised this power during the nineteen-thirties has been vividly disclosed in the first instalments of Mr. Morgenthau's diaries, and the story can hardly have been encouraging to Federal Reserve leaders who make such painstaking and meticulous efforts to guide the nation's monetary affairs.¹ Associated with this former power to vary the price of gold is control (which still exists) over the (Exchange) Stabilization Fund, operated by the New York Reserve Bank under instruction not from the Board of Governors of the System but from the Treasury. The Treasury has power (exercised in the nineteen-thirties) to sterilize or 'unsterilize' gold acquired in the course of Stabilization Fund operations and by purchase of domestically mined gold.² In Britain

¹ A change in the price of gold would now require legislation.

² The sterilizing process is described in the *Federal Reserve System Annual Report* for 1936 (p. 8): 'Under this practice, as under the old,

parallel operations—insulating the domestic credit situation from the movements in the Exchange Equalization Account—were constantly being undertaken, but by the Bank of England, not by the Treasury. It is true that the Bank of England was in constant touch with the Treasury, and that the latter's public debt operations had considerable bearing on the domestic credit situation. It is also the case that the United States Treasury only operated its inactive (i.e. gold sterilization) account after consultation with the Board of Governors of the System.¹ Nevertheless there was quite a marked contrast between London

the Treasury pays for gold by drawing upon its balance with the Federal Reserve banks, thus transferring funds from Treasury account to member bank account at the Federal Reserve banks. The Treasury's balance is reduced by the operation and member bank reserves are correspondingly increased. At this point the change of practice is introduced. Before the adoption of the new gold policy it was the practice of the Treasury to replenish its balance with the Federal Reserve banks by utilising the newly purchased gold to give the Federal Reserve banks equivalent credit in the gold-certificate account. Replenishment of its balance in this manner had no effect upon member bank reserves, which therefore retained the increase that had occurred when the gold was sold to the Treasury. Under the new policy . . . however, the Treasury has followed the practice of setting aside its current gold purchases in an inactive account and replenishing its balance with the Federal Reserve banks by drawing funds from the market either through the use of existing balances or through borrowing. Thus funds are transferred back from member bank reserves to the Treasury account at the Federal Reserve banks, cancelling the increase in member bank reserves that occurred at the time the Treasury purchased the gold. While the net result of these operations is to leave unchanged the total volume of member bank reserves, they may have altered the distribution of these reserves among member banks.²

¹ *Annual Report of Board of Governors for 1937*, p. 3.

and Washington, in that in Washington legal power was more explicitly concentrated in the Treasury, which consulted but did not necessarily accept the views of the Governors of the Federal Reserve System.

The central organs in Washington, described in the above paragraphs, are between them the policy-makers of the entire System. The Board of Governors makes regulations and the Federal Open Market Committee ordains open-market operations—but neither body actually engages in any banking transactions. The operating layer of the System consists of the twelve *Federal Reserve Banks*. There is one of these for each of the twelve Federal Reserve Districts into which the country is divided. They are at Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, and San Francisco. Between them they have twenty-four branches. Constitutionally these twelve banks are of equal importance, though the special position of New York as the *de facto* financial centre of the country has given the New York Reserve Bank a particularly influential position that has been countered to some extent by enlarging the powers of the central bodies in Washington.¹

The capital of each Federal Reserve Bank is subscribed by the member banks—i.e. the commercial banks who have joined the System—in the Federal Reserve District concerned. Limited dividends (always in practice paid) on the subscribed

¹ Cf. Chapter I above.

capital are a first charge on the (very considerable) profits of the Federal Reserve Banks. Relatively small payments have to be made to the Federal Treasury, and the remaining surplus is retained by the Reserve Banks. In a general way it may be said that the Reserve Banks pay fixed dividends to member banks in respect of subscribed capital and retain the surplus.

Each Reserve Bank has nine directors. Of these, the Chairman and Vice-Chairman and one other are appointed by the Board of Governors in Washington. The other six are elected by the member banks in the Reserve District, two being chosen by the large banks, two by medium-size banks and two by small banks. Of these six, three must be bankers, whilst the others must be actively engaged in commerce, agriculture, or other business in the District. All directors are removable by the Board of Governors. The Board of Governors has to approve the appointment of, and may call for the removal of, the chief officers of each Reserve Bank. The constitution of the Reserve Banks thus preserves a strong element of local and sectional representation. This is politically important in a country like the United States, which, as is often remarked, is rather a continent than a country. It is a system with its own disadvantages—a person who is expressly representing a particular interest may feel obliged to support that interest to the last ditch, whereas a person merely having unusually good knowledge of a particular interest brings the necessary point of view and factual knowledge, but does not feel under

the same obligation to maintain a special point of view against the general weight of the argument. In the earlier days of the Federal Reserve System the strength of special representation led to some loss of coherence and almost certainly weakened the policy decisions; but the present arrangements, whereby the key appointments are in the hands of the central Board of Governors, coupled with the fact that all the main powers are specifically centralized in Washington, may be said to provide adequate strength combined with full consultation with persons having local and specialist knowledge.

1 The main business of a Federal Reserve Bank is to act as bankers' bank for the member banks in its District. 2 It rediscounts eligible paper brought in by member banks. 3 It makes advances to member banks. It holds for them the legal cash reserves against their customers' deposits. 4 It purchases securities in the securities markets (under the direction of the Federal Open Market Committee). 5 It issues notes—the Federal Reserve Notes issued by these Reserve Banks form about two-thirds of the circulating cash in the country. Against its note and deposit liabilities it is required to hold a reserve of gold certificates at least equal to 25 per cent. of the liabilities. (The gold certificates are issued by the United States Treasury against its purchases of domestically mined and foreign gold.¹) 6 It provides clearing facilities for its member banks. 7 Also it conducts examinations of the

¹ For Treasury gold operations see above, pp. 50 and 51.

business of its member banks. In recent years ^a it has also made certain direct loans to industry for working capital—the ‘Section 13b loans’: these are small, and are chiefly notable as marking a departure from the original principle that the Reserve Banks should be purely bankers’ banks. In all these activities—but more particularly in rediscounting for and lending to member banks, in operating in securities and in making bank examinations—the Reserve Bank acts under general supervision by the Board of Governors (or, in the case of securities operations, the Federal Open Market Committee) in Washington.

The bottom layer of the System consists of the *Member Banks*, who subscribe the capital and appoint some of the directors of the Reserve Banks, and whose ordinary commercial banking business is primarily aimed at in many of the credit policy decisions made by the Board of Governors. All *National* banks—i.e. all banks chartered under Federal law—are obliged to be members, while for *State* banks—banks chartered under laws of the individual States—membership is optional. In figures, the five thousand National banks are all members, and nearly 1,900 of the nine thousand State banks are members, some seven thousand State banks remaining outside. About 86 per cent. of commercial bank deposits in the United States are with member banks—the non-member State banks being in general the smaller banks. Non-membership is relatively most common in the Middle West and the South.

In bringing in all National banks and giving State banks the option, it was the intention of the founders of the System to bring directly under the Reserve Banks not only a large but also an increasing proportion of the country's banks. For many years, however, banks showed an inclination to avoid membership, some National banks even exchanging their Federal charters for State charters (becoming State banks) in order to enjoy the greater freedom allowed to State banks. In the twenties and thirties law was gradually altered in the direction of assimilating the obligations of National banks to those of State banks, and this change has had the effect of reversing the previous tendency, so that since 1939 the number as well as the importance of non-member banks has been decreasing. The drift into the System is, however, very slow, and it is worth considering why some 7,000 banks have still not thought membership worth while.

The deterrents to membership are partly positive and partly negative.¹ The positive deterrents are the obligations which are incurred by entering the System. The negative deterrents are the advantages of membership which for one reason or another can be enjoyed even outside the System. The most effective of the

¹ They are analysed fully in the chapter 'Deterrents to Membership in the Reserve System', by B. Magruder Wingfield in *Banking Studies* (Federal Reserve Board of Governors, Washington, 1941). The paragraph above is based entirely on this work. It should not be supposed that every one of the deterrents noted applies to every non-member bank: many non-members already act in accordance with certain rules for members (e.g. the par clearance rule).

positive deterrents is probably the *Par Clearance* obligation: member banks are obliged to pay in full (i.e. without deduction of an 'exchange charge') cheques presented to them through the Reserve Banks. As traditionally these exchange charges have been a considerable part of the gross income of small banks, they are reluctant to lose them. Secondly, there are rules about minimum capital, both for a single-office bank and, more restrictive still, for the opening of branches. Thirdly, there are restrictions on the investments and loans that may be held among a member bank's assets. Fourthly, there are regulations about affiliated companies. Fifthly, there are the restrictions imposed by the Clayton Anti-Trust Act on the outside business activities of the officers of National banks. Lastly, there are the minor irritants such as the requirement of more statistical returns, reports, &c. Some of these restrictions are imposed directly by the Federal Reserve Act and regulations thereunder, and affect member banks as such, while others are imposed on National banks by the Federal banking law, and can therefore be avoided by taking a State charter that leaves the membership question open. On some of these matters the laws of individual States are also restrictive, but they are in general less restrictive than the Federal law and Federal Reserve regulations.¹

¹ The regulations of the Federal Deposit Insurance Corporation, membership of which is important for banks in a country that has the memory of 1932-3, are in some respects more restrictive than State laws, and therefore tend to assimilate member to non-member banks.

Then there are the negative deterrents—the fact that some of the great conveniences of adherence to the central banking system can be enjoyed without incurring the obligations of actual membership. As has been explained above,¹ the country had already, before the establishment of the Federal Reserve System, a crude system of bankers' banks, in the correspondent linking of the commercial banks. As the correspondent system continues in existence alongside the Reserve System, country banks can get some clearing facilities and can rediscount and borrow in times of need at their town correspondents. It is true that in times of acute crisis a Reserve Bank would be more obliging than a town correspondent which might itself be in difficulties, but for ordinary working purposes the town correspondent may be practically as useful as the Reserve Bank. Secondly, the Reserve Banks do in fact allow some facilities directly to non-member banks. They allow, in particular, the maintenance of balances with themselves by non-member banks for clearing purposes (but they insist on par clearance). In case of difficulty also (i.e. when the town correspondent may not be able to lend) the Reserve Bank is empowered to rediscount or make advances for non-member banks. Thus some of the most important direct conveniences of the Reserve System can be enjoyed by non-members—who also, of course, get the benefit of the general stability which the Reserve System strives to give to the

¹ See pp. 5–6.

whole credit system of the country by its broad credit policy.

Almost every new step in banking legislation tends to increase the assimilation of member and non-member obligations, and if this tendency continues it is reasonable to expect that membership of the System will become more nearly universal. For a time the element of non-membership seemed a serious threat to central banking control; but now, with 86 per cent. of the country's deposits in member banks, and with certain important powers of the Reserve System extending far beyond the member banks, it seems that the existence of commercial banks outside, though anomalous, is not a phenomenon to cause anxiety to America's central bankers.

V

THE FEDERAL RESERVE SYSTEM

II. CONTROL OF THE QUANTITY AND PRICE OF CREDIT

THE Federal Reserve System 'was viewed originally as a provider of elastic currency and a dispenser of emergency funds to meet seasonal and other temporary requirements of member banks',¹ and it was to these limited ends that its early operations were directed. In this phase it was natural to concentrate attention on the discount rate and on other interest rates applicable to the System's transactions with member banks. No sooner had the Reserve System begun to take a positive line in its Discount Rate policy, in the 1919-22 boom and slump, than its range of activity widened and it stumbled into the use of open-market operations as an accessory to the Discount Rate policy for control of the general credit situation. The gradual enlargement of its original purpose has continued with accumulated experience, and the System 'has come to recognize that it has major responsibility to contribute to the formulation of national credit policies with a view to moderating booms and depressions'.¹ Or, as a Governor of the System wrote

¹ E. A. Goldenweiser, 'Instruments of Federal Reserve Policy', in *Banking Studies* (Federal Reserve System, Washington 1941), p. 392.

in 1945,¹ 'the primary objective of Federal Reserve policy is to provide monetary and credit conditions favourable to sound business activity in commerce, industry and agriculture'. With this broadening of the purposes of the System it has become more difficult (and perhaps less sensible) to disentangle the various devices by which the System endeavours to influence the general credit situation. The System does not employ one particular weapon with one particular narrow purpose: it does a number of things at once, the operation of all devices together being designed to influence the credit situation in some general way. This integration of the present technique of the System must be remembered throughout these two chapters, where the various operations are treated separately for convenience of exposition only. In the present chapter we shall confine ourselves to the methods developed for control of the quantity and price of reserve cash. In the following chapter we shall consider attempts at the development of a 'qualitative' or 'selective' control.

1. *Discounts and Advances for Member Banks*

The Reserve Banks supply funds to the commercial banking system through four channels: they discount or make advances on 'eligible paper' brought to them by member banks, they buy bankers' acceptances from banks and from dealers, they buy Government

¹ M. S. Szymczak, on p. 2 of *The Federal Reserve in World War II* (Detroit, 1945).

securities in the market, and they buy Government securities direct from the United States Treasury. It is in fixing the interest rates at which these transactions take place that the Reserve System influences directly the structure of interest rates ruling in the money market and through the banking system as a whole.

The first of these channels—the discounting of and advancing on eligible paper—was intended by the founders of the Federal Reserve System to operate as the safety-valve of the monetary system. The Reserve System was established in large part to provide vital elasticity at moments of tightness in the money market—to prevent tightness from forcing a breakdown such as had occurred yet again in 1907. When banks for seasonal reasons, or because of expanding trade (trade in real things, not speculation), or because of a wave of distrust, needed more cash to pay out to customers or to hold in their vaults, they should, it was argued, be able to come to the Reserve Banks with sound banking assets and obtain in exchange the needed cash. The right to come to a ‘lender of last resort’ was correctly believed essential to the establishment of a sound banking system. On the other hand, it was necessary to avoid indiscriminate provision of cash for supporting undesirable speculation on the Stock Exchange. Analogy with the Bank of England suggested the need for opening the Reserve Banks for rediscount of and advances on well-secured paper originating in genuine commercial transac-

tions.¹ But the absence of anything like the London market in commercial bills of exchange precluded any slavish imitation. An attempt was to be made to develop commercial bills of the London type but meanwhile power had to be given to the banks to get cash on paper that they could produce forthwith. Commercial paper,² promissory notes given by customers as security for ordinary trading loans, or bankers' own promissory notes secured by deposit of commercial paper or customers' notes, were broadly the classes of short-term paper which were regarded as 'eligible'. On presentation of commercial paper or customers' promissory notes a bank was to be allowed funds at the published 'Discount Rate', while the related 'Advances Rate' was applicable when a Reserve Bank advanced cash against the banker's own promissory notes.

By making funds available to all member banks at this Discount Rate, but only on eligible paper arising out of genuine commercial needs, it was thought by many that the supply of bank credit on reasonable terms for all legitimate needs was fully safeguarded.³ Pushed to this extreme, the doctrine might have led to a refusal ever to alter the Discount Rate as a weapon of control. While such views have in fact been respon-

¹ It will be appreciated that I am here outlining arguments that dictated the measures adopted, without examining the validity of these arguments.

² i.e. paper referred to on pp. 36-7 above.

³ Readers familiar with the history of English monetary thought will recognize the doctrine of the Banking School.

sible for much of the confusion in the System's Discount Rate policy (especially in helping the business interests in the directorates to keep rates down) they have from the beginning been losing ground. The idea that restriction of 'eligibility' provides a sufficient safeguard against inflationary use of credit has given way in face of the fact that the precise amount of narrowly defined eligible paper in a bank's portfolio has little relation to the quality of that portfolio as a whole, and still less to the use which the money market makes of the marginal supply of funds as the additional cash seeps out from the borrowing bank into the System as a whole. The operators of the System began the process of change not only by creeping administrative relaxation of the eligibility rules, but also by looking into the general condition of a borrowing bank's portfolio. It was, in fact, to the bank rather than to the particular parcel of assets presented that the Reserve Bank authorities looked for eligibility.

The broad principles of the restriction of eligibility of paper remained, however, and must bear some share of responsibility for the stickiness of resort to a central cash reservoir in the banking crisis of the early thirties. Partly as a result of realization of the weaknesses of eligibility doctrine, partly because some of the original eligible assets (particularly commercial paper) had become scarcer, and partly because of the experience of the 1932-3 crisis, the eligibility provisions have been liberalized beyond recognition. By the revision of Regulation A, effective 1 October 1937, it is

provided that when, in the judgement of the Federal Reserve Bank, circumstances make it advisable to do so, the Bank may accept as security for such advances to member banks any assets satisfactory to it; but the Regulation lists specifically certain preferred classes of assets 'which cover the principal fields of financing'.¹ Thus, the position is now that use of the safety-valve is not restricted by any narrow class of assets supposed in an abstract way to be particularly worthy of central bank support, but solely by the discretion of the lender of last resort when faced with the particular circumstances of the moment. Bagehot could not have wished for a fuller recognition of the responsibility of the lender of last resort.

While it can be justified both by theoretical considerations and by the disastrous experiences of the early thirties, this virtual collapse of eligibility restraints on member bank borrowing merely removed something that had never operated as a strait-jacket under the more normal conditions of the nineteen-twenties. Although a particular bank might be from time to time uncomfortably short of eligible assets, the total amount of such assets in the System as a whole was always far in excess of the volume of member bank borrowing. The latter was ordinarily very

¹ 'In addition, in order to encourage member banks to have their real estate loans and instalment paper in a form that would make them acceptable as a basis for advances by the Federal Reserve Banks, the Board in an appendix to the regulation recommended certain minimum standards for observance in making such loans.' (See *Annual Report* for 1937, pp. 30-1.)

small, only a minority of banks being indebted to the Reserve Banks at any one time. Under the easy money conditions ruling since 1934 borrowing at the Reserve Banks has become negligible in amount. It might be supposed that member banks would borrow heavily as long as the rates charged to them were not altogether above the range of prevailing market rates, especially as a given increase of cash (obtained from the Reserve Bank) would allow a multiple increase in their own liabilities. And in fact the Discount and Advances Rates charged by the Reserve Banks have never been greatly above the market rates: on the whole the differences have been no more than are consonant with the risk differentials.¹

Why have member bank borrowings been so small? The answer lies in a combination of circumstances. From the first there has been a very strong presumption against *continuous borrowing* by a member bank. The historical origin of this lies partly in the fact that the Federal Reserve resources were composed of compulsory reserve deposits and capital subscriptions of member banks, and it was felt that these funds provided a central reserve, the cost of which was borne by all the subscribing banks, and that a bank which borrowed continuously was in fact obtaining capital from the other banks. If it wanted more funds continuously, let it seek more capital, ran the argument.

¹ The question of the relations of market rates to the Reserve Bank rates has been exhaustively discussed in the American literature—see especially Burgess, *Reserve Banks and the Money Market*, and Harris, *Twenty Years of Federal Reserve Policy*.

Hence, the sentiment that banks should confine themselves to 'fair shares' of the use of reserve funds. Secondly, the System's resources were designed primarily to afford elasticity at times of stress: therefore they should not be exploited continuously, but only when difficulties arose. For these and similar reasons the Federal Reserve authorities discouraged continuous or substantial borrowing in normal conditions, using moral pressure and administrative devices to enforce this policy, in which they were supported by the mass of member bank opinion. Further, during the nineteen-twenties banks failed by the score every year, and the failures were geographically scattered enough to make customers' confidence something that could not be taken for granted. In these circumstances no bank liked its balance-sheet to show that it was depending on another bank—whether called a Reserve Bank or anything else—for part of its resources. In short, neither Reserve authorities nor member banks themselves favoured continuous or substantial indebtedness of individual member banks.

On this basis the substantial independence of member banks from the Reserve Banks during the easy-money period since 1934 is seen as merely an extreme development of a general position already reached: a position in which borrowing at the Reserve Bank is only an occasional marginal source of cash and the Discount Rate therefore of little direct relevance to the lending policy of the commercial banks. This was not at first generally recognized. Indeed, the first

qualification of the crude theory that lending is right if the security originates in genuine commercial transactions took the form (as earlier in England) of a belief that the Discount Rate might be used to encourage borrowing (for sound commercial transactions) in depressions, and to discourage borrowing (especially for transactions that might have become dangerously speculative) in booms. This more refined view has, of course, the substantial theoretical basis of all interest rate policy, and because of this it has had considerable vogue in the history of central banking thought. For the latter reason it has an announcement effect out of all proportion to the narrow range of its technical operation. From a narrowly technical point of view it is only the price at which occasional marginal cash can be drawn from the Reserve System at the initiative of the member banker, and as such it has to fall into its place in the structure of interest rate policy. But it is an important 'signal'—a signal of the central bankers' views on which way interest rates should be moving, and often by implication of their views on which way trade activity should move. There is no reason why, as central bank technique is developing, this should always be so, but it has undoubtedly been so during the last thirty years.

2. The Buying Rate for Acceptances

Mention has been made above of the lack of any close parallel to the London bill of exchange at the time of the establishment of the Federal Reserve

System. Henceforth, every effort was to be made to foster a bill market of the London type which would provide at once an alternative, as an outlet for surplus funds, to call loans on Wall Street, and a suitable instrument (according to the ruling school of thought) for the Reserve System's functioning as the elastic element in a hitherto rigid monetary system. As a first step Congress removed the legal prohibition of the 'acceptance' of bills of exchange by bankers. Next, such acceptances (as the bills are normally called in America) were made eligible for purchase by the Federal Reserve Banks. Finally, the Reserve System went out of its way to encourage the development of acceptances by fixing its buying rates at relatively favourable levels: i.e. levels which would make the sale of an acceptance to the Reserve Bank a cheaper way than any other of obtaining additional cash. The Reserve Banks are ready to buy either from banks or from dealers.

With these encouragements the bankers' acceptances grew rapidly, and in the nineteen-twenties had become comparable to the volume of trade bills handled in the London discount market. Quite a considerable part—but by no means the whole—of the foreign trade of the United States, as well as a substantial amount of internal movement and storage of commodities, came to be financed by the bankers' acceptances. The development of this new instrument probably had some effect in promoting the rise of New York as an international monetary centre.

The Reserve Banks' favourable treatment of acceptances was of course pleasing to those who held (as many did before 1920 and some later) that the primary duty of the Reserve System was the accommodation of 'legitimate business'. The movement of primary commodities was, it was argued, legitimate enough in all conscience, and the Reserve System was therefore right to encourage the growth of and treat favourably the credit instruments arising directly out of such transactions. Such views as these have reinforced the tendency for the Reserve Banks to keep down the buying rate for acceptances at times when the Discount Rate was being pushed up. While the acceptance market was in its infancy, no harm was done by this favouritism. But by the twenties the supply of acceptances was large, and more favourable rates on acceptances had the effect of switching banks from rediscounting commercial paper (at the Discount Rate) to selling acceptances to the Reserve Banks (at the more favourable buying rates). In these circumstances the buying rate for acceptances was the effective rate at which member banks could get cash, the official Discount Rate becoming ineffective. Given the unwillingness to raise the acceptance buying rate sharply, this swing from the Discount Rate to the Acceptance Rate was a source of weakness in interest rate policy—especially in such critical phases as 1928-9.

Under present circumstances of large excess cash reserves, the buying rate for acceptances, like its twin

the Discount Rate, has become of less obvious importance than hitherto. Yet it remains ^{the} rate of interest at which the Reserve Banks stand ready to supply cash to the member banks, either directly or via the dealers who are allowed to take acceptances directly to the Reserve Banks. As a tap rate, it must not be unduly low in relation to the other rates at which the Reserve System is willing to make cash reserves available to the banking system.

Unlike discounts and advances, whereby the Reserve Banks put cash at the disposal of the member banks on the initiative of the latter, acceptances come into the portfolios of the Reserve Banks both at the initiative of the member banks (and dealers) and at the initiative of the Reserve Banks themselves. The Reserve Banks' acceptances operations fall thus into two categories—those which, like discount operations, result from fixing a rate and waiting for the market to bring acceptances, and those which take the more aggressive form of actual buying orders carried into the open acceptance market by the agents of the Reserve Banks. The latter are simply a particular form of 'open-market operations', to which in general we must now turn our attention.

3. *Open-market Operations*

Open-market operations consist of all those transactions in acceptances, Government and other securities (both short- and long-term), and indeed any other assets, other than gold, on which the Reserve Banks

embark on their own initiative. Only since about 1923 has the Reserve System engaged in such transactions as a serious part of its credit policy, but from that time onwards the amount and timing of these open-market operations were recognized as sufficiently important to call for regulation from the centre (though this regulation was not mandatory until 1935).

Though purchases of acceptances have figured in the System's open-market operations, especially in the early days, the main place has been taken by Federal Government securities, especially the 3-months Treasury Bills and the 9- to 12-months Certificates of Indebtedness. When these are purchased in the market, member banks find their balances at the Reserve Banks increased by the amounts being paid by the Reserve Banks for the securities purchased. As has been explained above, member banks dislike any appreciable borrowing from the Reserve Banks. Consequently, in the conditions of the nineteen-twenties when member banks found their deposits at the Reserve Banks increasing so as to enable them to cover their legal reserve requirements without borrowing, the member bank indebtedness to the Reserve Banks dwindled. Lending by member banks in the money market increased and open-market rates went down. As open-market rates went down, the offers of acceptances to the Reserve Bank also went down, unless the official buying rates were reduced to match the fall in open-market rates.

Thus the Reserve authorities often found that the total reserve cash resources of member banks (the reflex of the total assets of the Reserve Banks) was not greatly increased by open-market purchases—but that there had been a fall in interest rates ruling in the open market. Similarly, when the Reserve System sold securities, the effect was, by depriving member banks of cash (as payment for the securities was collected), to force member banks' reserve cash below legal minima and therefore to drive the member banks to discounting and borrowing at the Reserve Banks. Thanks to the dislike of this indebtedness at the Reserve Banks, member banks would proceed to call in their loans from the open market, where there would consequently be a general rise in rates—rates for Stock Exchange call money, for acceptances, for short-term Government paper, and so on. Once again the Reserve authorities might find the total of member bank reserve cash not very different from what it was before, but the whole structure of market rates of interest would be appreciably higher.

As this technique developed during the nineteen-twenties, the Reserve System almost got into the habit of bringing about desired changes in interest rates by open-market operations—a sale of securities for raising rates, and a purchase of securities for lowering rates. The official Discount and Acceptance Rates would then be moved to match (and consolidate) the movement of open-market rates. As long as the market was operating on a fairly small margin of funds (i.e. excess

reserves) and there were no substantial gold movements to add to or subtract from member bank reserves, fairly small open-market operations had the further advantage, in those days, that they could be used to offset the effect, on member bank reserves, of gold movements, which were at that time allowed to enter the banking system directly. An influx of gold could be prevented from flooding member banks with excess reserves which would have rendered them indifferent to Reserve Bank interest rates. Similarly, the Reserve Banks could, by purchasing securities, prevent a gold efflux from causing a stringency that would send money market rates above the desired levels. In this way the Reserve System, engaging in open-market operations sometimes amounting to hundreds of millions of dollars in a few months, was able to free the United States economy from some of the more automatic implications of the international gold standard, and the country had the benefits at once of an independent monetary system and of an international standard.

With the onset of the slump at the end of the decade the emphasis was altered. In the years 1930-3 the Reserve Banks pushed their open-market purchases far beyond the point of offsetting gold losses and creating a marginal surplus of funds which would cause open-market rates to fall away. At a time when there were large gold imports, the System actually added some two thousand million dollars to its security portfolio. The result was that member banks acquired

enormous excess reserves. Had attractive outlets for loans, &c., been available, the member banks would have responded by a multiple expansion of credit. As it was, they were unable to extend their assets appreciably (indeed, the outlet for ordinary business loans seemed to be diminishing) and the excess reserves position lasted through the remaining years of peace. This led to the use by the Reserve System of a new weapon, the variation of legal reserve minima.

4. Variation of Reserve Ratios

Nothing more clearly shows the shift in the underlying intentions of American banking legislation than the change in the law and practice on reserve requirements of commercial banks. Cash reserves are held by commercial bankers in order to assure for their customers ready convertibility of their bank deposits into more widely acceptable forms of money. To the extent that unregulated commercial bankers deliberately vary their cash reserve ratios, it is generally in response to a variation in the availability of other banking assets. Thus solvency of the bank is the only consideration other than ready convertibility. Until comparatively recently Federal as well as State legislation was entirely in keeping with all this: banks were obliged to keep cash reserves bearing certain proportions to their deposit liabilities and, because ready convertibility was the object, the legal cash reserve ratios were varied according to the location of the bank (indicating its probable position in the

correspondent network) and according to the class of deposit—demand or time.¹ Convertibility continues to be the objective of State laws about cash reserves but, though it continues to influence the form of the regulations governing all banks, it has ceased to be the inspiration of Federal banking law.

The change began with the establishment of the Federal Reserve System. One view of the institution of the Reserve System was that it was a grouping together of all (or most of) the banks in the country to enable them to cope more comfortably with seasonal and cyclical strains. A pooling of reserves was, from this point of view, a fundamental feature of the plan. Member banks would, it was argued, put their reserves into the common pool and the Reserve Banks could use this common pool of reserves for lending to banks in temporary need. On this basis it was natural enough that the Federal Reserve Act should provide for the collection into the Reserve Banks of a large part of the individual bank reserves, which continued to be related to the location of the bank and the class of deposit liability.² As the System developed during

¹ Because of the notice to which a banker is entitled before withdrawal of a Time Deposit, the legal cash ratio has always been lower for Time Deposits than for Demand Deposits. The experience in the 1932-3 crisis was that Time Deposit withdrawals are just as troublesome to a banker in a crisis as are those of Demand Deposits, but the traditional differentiation for legal cash ratio purposes has not been modified in the light of this experience.

² In the original Act member banks were allowed to count 'vault cash' (American for the English 'till money') as part of their legal minimum reserves, but this provision was repealed after a very short time.

the nineteen-twenties, however, these member bank reserves held at the Federal Reserve Banks ceased to be thought of primarily as guarantors of convertibility and came to be thought of as 'the basis of the supply of bank credit' which could be operated upon by the deliberate policy of the Reserve System. The Reserve Banks could, actively by open-market operations and passively by rediscounting and lending to member banks, alter the total of member bank reserves. Member bank reserves had become the stepping-stone between Federal Reserve credit policy and the lending policies of the commercial banks. The way to tighten the credit situation over the entire country was to reduce member bank reserves, and the way to loosen credit conditions over the entire country was to increase member bank reserves.

Member bank reserves having become the pivot of central bank control, the old percentages (for Demand Deposits of 'central reserve city' banks, 'reserve city' banks, and others, and for Time and Savings Deposits everywhere¹) lost their original significance and became factors influencing the convenience and efficiency of central banking control by the Reserve System. An artificial reclassification of deposits causing a reduction of reserve requirements became subject to criticism not as endangering the liquidity of the commercial banks but as an evasion of central bank control. This occurred during the late twenties, when

¹ The percentages fixed by amendment of the Federal Reserve Act of 1917 were 13, 10, 7, and 3 respectively.

some member banks deliberately allowed some of their customers to treat Time Deposits as Demand Deposits: since the reserve ratio applicable to Time Deposits was much lower than those applicable to Demand Deposits, legally required reserves against a given total of deposits were reduced. At a time when lending opportunities were in general attractive, the temptation to procure such a shift of deposit classification was evident. It profited a bank to allow interest on deposits which, though called Time Deposits, were in fact subject to transfer by cheque, when by so doing it could extend remunerative loans. How far the practice went has been disputed.¹ Certainly it was possible and did in some measure occur; it was thought sufficiently serious to warrant certain changes in the regulations. Time Deposits were from 1933 onwards defined much more closely, so as to exclude effectively the practice of drawing cheques on them.²

In the controversy about reserve requirements that followed the experience of the nineteen-twenties

¹ For an official discussion see *Federal Reserve Bulletin*, November 1938. R. W. Goldschmidt (*The Changing Structure of American Banking*, pp. 40–2) considers that the ‘faked’ shift was small.

² Under the Banking Acts of 1933 and 1935 regulations have established the following rules for Savings and Time Deposits:

1. Savings Deposits may not be held by an organization operated for profit.
2. Savings Deposits may not be withdrawn except by the depositor himself and on production of the pass-book.
3. Time Deposits may not, except in emergency, be paid before expiry of the due notice.
4. Time Deposits may not be borrowed against except at a charge 2 per cent. above the rate paid on the Deposit.

there were suggestions that cash reserves should be related automatically not to deposit liabilities alone but to some combination of deposits and bank debits. As bank debits rose, it was argued, reserve requirements should automatically rise, for a given structure of deposit liabilities. The basis of this argument had nothing to do with the need for convertibility of bank deposits into cash.¹ It was concerned solely with the need for putting the brake on bank lending activities in times of expanding trade (when debits would be rising), and encouraging lending in times of contracting trade (when debits would be falling). Reserve regulation was thought of as a way of providing an automatic control of credit, and this proposal to complicate the old simple formulae was merely designed to sharpen its action while maintaining its automatic nature. A change of this kind would have been retrogressive in that, however great its theoretical attractions, it would have lent support to the view that the monetary system is better regulated by automatic devices than by the discretionary action of central bankers.

The innovation actually made by the legislation of 1933 and 1935, however, added to the power of the central bankers and did not provide any new automatic credit governor. By the 'Thomas Amendment' of 12 May 1933 to the Federal Reserve Act, the Federal Reserve Board was empowered to increase (without limit) the legal minimum reserve ratios for

¹ Or the proposal might have run the other way.

member banks in emergency conditions and subject to the concurrence of the President. This was essentially a temporary provision. Under the Banking Act of 1935 permanent powers were conferred on the Board of Governors (as the Federal Reserve Board now became) to vary the ratios within limits and without reference to the President. The limits were (1) the ratios as established by the 1917 amendment of the Federal Reserve Act (see above, footnote on p. 77) and (2) double those ratios. The Board was not free to vary the ratios for different classes of banks (central reserve city, &c.) quite independently of each other. The restriction of this new power to emergency circumstances gave way to a more general provision that the Board could use it only 'in order to prevent injurious credit expansion or contraction'—a phrase wide enough to content any central banker.

The setting of the upper and lower limits should not be interpreted simply as evidence of desire to cramp the discretion of the Board. The old idea of prescribing reserves for the protection of the depositor inevitably lingers; and American opinion is used to fairly high ratios, which it regards as providing some guarantee of banking strength.¹ As for the other end of the scale, it will be appreciated that the higher the reserve ratios go, the less profitable can commercial banking be: hence upper limits to the ratios are some safeguard for the profits of commercial bankers.

¹ Cf. *The Federal Reserve System in Wartime*, by Arma Youngman (National Bureau of Economic Research, 1945).

The first exercise of the new weapon was in the boom of 1936-7. The huge gold influx at a time of slack trade had led to a great increase in excess reserves of member banks, and the position reached was that the Reserve Banks would not have been able to 'mop up' the excess by open-market operations—they had not sufficient securities to sell. This was just the kind of situation for which the new weapon was appropriate, and in August 1936 the Board raised all reserve requirements by 50 per cent.—i.e. it raised them half the way from their old level towards the maximum level allowed by the 1935 law. Then early in 1937 by two more stages the ratios were raised the rest of the way to their legal maxima of 26, 20, 14, and 6 per cent. By these successive steps about two billions of the total of three billions of excess reserves were converted into legally required reserves. There was no complete elimination of excess reserves and no general reduction of bank credit; but the evident determination of the Board to discourage credit expansion perhaps played some part in dampening the boom. Anyway, whether or not it was justified, there was some criticism of the Board's action when there was a decided recession, and in April 1938 the Board (as part of the Government's general anti-slump measures) reduced reserve requirements by one-quarter of the increase of 1936-7.¹ Then in the autumn of 1941, when the armaments drive had

¹ In this 1936-8 episode the reserve variation weapon was reinforced by the Treasury gold sterilization and unsterilization policy.

created boom conditions, the reserve requirements were once more raised to the statutory maxima, for the declared purpose of controlling inflation and establishing better contact between the Reserve Banks and the money market.

After the United States entered the war, the tendency, already evident in the previous years, for industrial activity to develop more rapidly in the West and Far West showed itself in the distribution of banking funds. The Government was raising funds from or through the banking system all over the country, but particularly in the East, while the Government disbursements reflected the rise of war industries in the West. Consequently there was a shift of deposits and reserves from East to West and even more from the financial centres of New York and Chicago towards the widely scattered centres of war production. The reserve ratios of New York and Chicago therefore fell relatively to those elsewhere, and excess reserves in these cities virtually disappeared. The cheap-money policy for supporting Government bond issues would have been upset if the required reserve ratios in New York and Chicago had been maintained at the 1941 level, yet the Board of Governors did not wish to release control of the situation generally by making an all-round reduction of reserve ratios, which would have created large excess reserves in other parts of the country. The law was therefore amended to permit the Board to change the reserve requirements for banks in the central reserve cities

(New York and Chicago) separately from those in the reserve city banks. After this change the ratio of reserves to Demand Deposits for New York and Chicago was dropped by three stages from 26 to 20.¹

Now that the Board is free to vary the different ratios independently of each other, the weapon can be used more freely without causing undesired disturbance of banks which happen to be relatively short of excess reserves—that is to say, unevenness in the distribution of excess reserves need not be an impediment (at any rate to the same degree as formerly) to the absorption of widespread excess reserves, or the creation of excess reserves, by variation of the reserve ratios. This increased freedom of action is underlined by the repeal (also in 1942) of the veto on member banks' lending or paying dividends while their cash reserves fall short of the prescribed minima. The Board is interested, not in putting a particular bank into difficulties, but in removing or creating easiness throughout the credit system as a whole.

The changes of 1935 and 1942 have thus increased the usefulness, the handiness, of the new weapon within the upper and lower limits of reserve ratios imposed by the 1935 Act. The Board is, however, still not satisfied, and in its *Annual Report* for 1945 asked Congress to grant additional powers to raise reserve requirements against Demand Deposits. A quite new extension of the idea is embodied in an allied proposal,

¹ This ratio was raised from 20 to 22 per cent. in February 1948.

made in the same place, that the Board should be empowered to require banks to hold a specified percentage of Treasury Bills and certificates as secondary reserves against Demand Deposits. These proposals had a hostile reception from the commercial banks, who urged that Congress would be 'substituting in large measure for the judgment of individual bankers a complicated system of new rules and regulations dictated from Washington'¹ and there has not yet been any legislation.

The fundamental change of principle in the regulation of cash reserve ratios illustrates the extent to which gold has gone on to a 'dollar standard' rather than the dollar on to a gold standard. Even when gold acquisitions (both by import and by domestic production) have been allowed to percolate through the Treasury funds into the cash reserves of the commercial banks, there is no assurance that they will not be sterilized by exercise by the Board of its power to increase the reserve ratios; and correspondingly for gold losses. The Treasury and the Board of Governors of the Federal Reserve System have acquired in the last fifteen years these important new weapons for nullifying gold movements; and the credit policy of the Treasury and the Board, rather than the movement of gold, is the monetary factor influencing dollar prices. If the United States economy were small in relation to the whole gold standard world, the United States monetary authorities would, of course, have to

¹ *The Banker*, Sept. 1946.

toe the line or be prepared to leave the gold standard. As things are, the Treasury and the Board together have powers far beyond what they had in the nineteen-twenties, powers that enable them to impose dollar prices on the gold standard world much more confidently than when McKenna first spoke of the world as being 'on a dollar standard'.

The extent to which the Americans, while paying lip-service to gold, are prepared to free their monetary affairs from any kind of shackle implied in adherence to the gold standard is illustrated not only in their willingness to vary commercial bank cash ratios but also in their willingness to vary the reserve proportion rules of the Federal Reserve Banks. During the war the growth of industrial activity, particularly in 'newer' parts of the country, the growth of the armed forces, and other factors common to all belligerent countries combined to increase greatly the demand for notes for circulation. The note-issue quadrupled between 1940 and 1944 although bank deposits rose little. One effect of this was to reduce the proportion of gold certificates held by the Reserve Banks against their note and deposit liabilities uncomfortably close to the legal minima of 40 and 35 per cent. respectively. The situation was met, not by any strait-laced deflationary policy but by reducing the legal minima—to 25 per cent. for both notes and deposits. This was, of course, reasonable enough—the demand for more of one particular form of money (notes that required a gold backing) should not, in a sensible

monetary system, be allowed to induce deflationary action unless it is a symptom of excessive demand for money generally. The point to notice here is simply that, though they retain the paraphernalia of legal relation of notes, &c., to gold reserves, the Americans are willing to monkey with the law as soon as it stands in the way of the credit policy they want to follow.

5. *The Stable Bond Market Policy*

During and after the Great Depression, in America as in Britain, the authorities followed the most influential theorists in maintaining that low interest rates would be an important stimulant to the level of economic activity. Therefore the low rates enforced at the depth of the depression were maintained throughout the slow and prolonged revival that occupied the middle thirties. Then, partly because of a shift in emphasis in theoretical economics and partly because the slowness of recovery in response to cheap money had been disappointing, faith in interest rate policy as a quick working weapon declined. It became fashionable to stress the disturbing rather than curative effects of rapid changes in interest rates, and to say that interest rates should be kept at a steady low level. I do not think that this view was ever authoritatively asserted in its extreme form before 1939, but at least it was sufficiently in the air to prepare the ground for the war and post-war policies of the Federal Reserve System.

The technical situation was made favourable to

such a policy by the existence of the huge amount of excess reserves created by the large and continuing gold influx following the injection of cash by open-market operations during the crisis period. The problem of excess reserves was dealt with only partly by Treasury gold sterilization¹ and by raising legal minimum reserve ratios, and it was in connexion with the latter operation in 1937 that the 'stable bond market policy' first reared its head. The excess reserves to be absorbed by the raising of legal ratios were not evenly distributed between member banks, and it was apparent that some few (but substantial) banks were in the abnormal position of having to sell investments in order to bring their reserves up to the required levels. The extraordinary surplus reserves still remaining with some other banks did nothing, of course, to match the need of the first banks to sell securities, since the excess reserve banks had previously been in an even fuller reserve position without desiring to add to their investment portfolios. The Reserve System, in order to prevent the security sales from disturbing the bond market unduly, engaged in some open-market purchases of securities. It will be appreciated that this was a paradoxical action at a time when the System (by raising legal reserve rates) was mopping up the credit basis on a huge scale; but the paradox does show how important a 'stable bond market' was already considered by the System.

Except for the relatively small operations of 1937,

¹ See pp. 50-1.

the Federal Reserve System maintained a fairly constant holding of open-market securities (round about \$2,500 millions), while excess reserves continued and interest rates remained at their steady low level. Disturbing conditions developed in 1939, however, on the outbreak of war in Europe, and the System reacted by restoring flexibility in its portfolio in order to steady interest rates. Stable bond markets were desired rather than stable monetary supplies.

When the United States entered the war in 1941 there was a marked development of this policy. Very properly the Reserve System subordinated all other considerations to the maintenance of conditions satisfactory from the standpoint of Government war finance. A 'pattern of rates' of interest was decided upon—three-eighths per cent. for three-months Treasury Bills, ranging up to $2\frac{1}{2}$ per cent. for long-term Government bonds—which was to be supported by (a) keeping the banks in all sectors of the country sufficiently plied with excess reserves to induce them to take up as much as possible of the bonds, &c., not taken by the outside investing public at prices corresponding to the 'pattern of rates'; (b) charging a preferential rate on advances to member banks secured by Government paper up to 1-year maturity; (c) the Reserve Banks standing ready to purchase Treasury Bills outright (or to purchase with right of seller to repurchase after 15 days) at the fixed rate of three-eighths per cent. p.a. (with the result that member banks could regard their Treasury Bill holdings as

equivalent to cash); and (d) open-market purchases of Government securities by the Federal Reserve Banks themselves whenever prices in the markets tended (in spite of all the other efforts) to sag below the desired levels. These actions were accompanied by explicit statements that the Reserve System would seek to stabilize conditions in the bond market. Further, in 1942 the prohibition of direct purchase of Government securities by the Reserve Banks from the United States Treasury¹ was removed, subject to a limit of \$5,000 millions on the directly-purchased Government securities the Reserve Banks might hold at any one time. Direct placing with the Reserve Banks could therefore be resorted to at any moment when a market issue would cause even momentary difficulty. At the same time the Reserve System used various powers (to be referred to in the next chapter) to reduce member bank assets of other classes.

With these extensive powers the Reserve System was fully able to enforce its stable bond market policy, while the banking system (as a whole) absorbed some \$64,000 millions of Government paper (40 per cent. of the total issues) during the first four years of the war.

After the war the general policy was maintained. The special preferential rate for advances to member banks on short Government paper was withdrawn early in 1946, at a time when the System was

¹ This prohibition, in the original Federal Reserve Act, had been designed to prevent use of the System for inflationary Government finance. The amendment of 1942, at first only emergency legislation, has since been given permanent effect.

inclined to encourage some firming of short-term money market rates, but the general line of fixing a 'pattern of rates' and supplying whatever cash base was necessary to maintain that pattern was continued.

Unfortunately the 'pattern' chosen was a somewhat artificial one in that it was one which was developed by abnormal market conditions in the nineteen-thirties before it was 'frozen' by official policy. At that time short-term rates were very low as a result of slack trade conditions, huge gold imports, the official operations of the crisis period, &c., while long-term rates did not come down to a 'normal' relation with the short rates because of great uncertainties about the future, the apparent abnormality of some of the factors depressing short rates, and so on. The 'spread' between short and long rates was therefore quite abnormally large, and this abnormal spread was frozen into the American economy by the war-time and post-war policy of maintaining a stable 'pattern of rates'. The commercial banks and other holders of both short and long Government securities, coming to believe that through official policy the prices of long-term Government securities would not be allowed to fall appreciably, naturally were inclined to sell 'shorts' to the Federal Reserve System and to use the proceeds to buy 'longs' yielding much higher rates.¹

The policy of holding rates fixed and supplying whatever cash was necessary to maintain them also

¹ Late in 1947 (after this paragraph was written) the authorities began to alter the pattern of rates.

implied that the authorities had in effect given up all idea of influencing the economic situation by altering the quantity or price of bank funds. We have in fact arrived at the end of a chapter in the development of central banking, and we must turn next to the alternative route—‘qualitative control’—by which the Federal Reserve System seeks to influence events.

VI

THE FEDERAL RESERVE SYSTEM

III. QUALITATIVE CONTROL

I. *Early Attempts at Qualitative Control*

When the Federal Reserve System was founded in 1913 there was little recognition of any necessity for controlling the quantity and price of credit in the way which became fashionable in the nineteen-twenties. In a sense *qualitative* control—of an automatic kind—was thought of as sufficient. It was supposed that if the Reserve System would *respond* to the ‘legitimate’ needs of industry and trade by supplying the desired amount of credit on reasonable terms, economic conditions would remain healthy.¹ Hence the stress on the ‘eligibility’ of security for Federal Reserve credit. If the System only lent on the basis of ‘sound commercial paper’, all would, it was ideally supposed, be well. Similar considerations led to the successful attempt to establish a market in bankers’ acceptances to parallel the London bill market. The hope that, by providing an attractive and healthy alternative, the supposedly objectionable market for loans to the New York Stock Exchange would die of inanition was not, however, realized, and the continued ‘drain’ of

¹ This is no doubt a simplification, or rather a statement of the view taken by some, but not all, of the founders of the System. More generally it was thought that the elasticity provided by the System would prevent acute crises of the 1907 type.

money to Wall Street in the twenties was one of the most important factors making for rehabilitation of the qualitative approach to credit policy.

This, however, is anticipating. What happened at the beginning was that the Reserve System was supposed to provide a reserve from which money could be drawn to support healthy trading activity, while efforts were made to weaken the attraction of unsound uses. But even in the early days there was some hankering after a 'price' control of credit conditions, in that the Discount Rate was in some circles thought of as, like the Bank of England's Bank Rate, a weapon for discouraging or encouraging lending. When the post-war boom was faced, this view prevailed, and the Discount Rate was raised sharply as a deterrent. For more than a decade thereafter the technique of manipulating interest rates played a large part in Federal Reserve policy; and when from 1923 onwards, open-market operations also became important, it was as an auxiliary weapon—or rather an integral part of the system of quantitative control. The System endeavoured during this decade to guide the American economy primarily by regulating short-term interest rates and by providing (by its open-market operations) whatever supply of bank cash was necessary to enforce the desired level of interest rates.

This technique is, of course, the appropriate one if all parts of the 'money market'—everywhere where there is a demand for credit—stand in such relation to each other that a change in supply conditions affects

all parts equally and simultaneously. In such conditions there is no point in any attempt at 'qualitative control', since restriction applied at one point rapidly restricts supplies at all other points; and an easement at one point at once spills over all other parts of the money market.¹

Lending on sound trade bills would at once ease the Stock Exchange call market, and so on. Even in the heyday of quantitative control, however, the Federal Reserve authorities never worked entirely on these extreme assumptions. Though eligibility restrictions were widened, the officers of the System looked at the general condition of the assets portfolio of a borrowing bank—a bank that was obviously supporting flagrant speculation could not expect to get much help from the Reserve Bank, no matter how well it supplied itself with the narrowly defined eligible paper. Moreover, at particular critical times the Reserve System endeavoured to curb speculation by 'moral suasion' At the extreme phase of the 1919–20 boom the Reserve authorities were quite open in their frownings on certain types of loans. The 1928–9 boom provided another clear case—a case, too, witnessing the weakness of such a technique. The Reserve System, striving to avoid extremely high interest rates which it thought would be damaging to ordinary trade, used every possible way to persuade the banks to stop lend-

¹ This matter has been exhaustively discussed by economists, notably by Fritz Machlup (see especially his *Börsenkredit, Industriekredit und Kapitalbildung*).

ing to Wall Street for Stock Exchange speculation. In this it succeeded in very large measure, only to find that brokers' loans in Wall Street found ample support from non-bank lenders—for though banks were not lending to Wall Street, they were keeping supplied with money customers who themselves lent to Wall Street on an altogether unprecedented scale. Thus money 'seeped' from 'good uses' to 'bad'.

The part which at any rate seemed to have been played by Wall Street in exaggerating the trade cycle at this time was so great that the Americans refused to be defeated by this failure of moral suasion, and in the post-crisis legislation of 1934-5 Congress sought to place new barriers in the money markets so that the Reserve System could exercise qualitative control with more effect. The principal innovations were those relating to 'margin requirements' and to consumer credit.

2. *Margin Requirements for Stock-market Speculation*

The regulation of borrowing for speculation in securities is a duty imposed on the Board of Governors of the Federal Reserve System not by the Federal Reserve Act, nor by the Banking Act of 1935, but by the *Securities Exchanges Act* of 1934. This innovation was, like other changes in 1933-5, the result of reflection upon the unhealthy stock-market boom of 1929, the latest and in some ways most extreme example of the violent upswings and downswings of the stock market which were 'a decidedly unstabilizing

influence in the national economy'.¹ The Board was, under the Act, to fix 'margins'—the margin being that part of the price of a security which the purchaser is called upon to provide in cash, The amount the purchaser may borrow is therefore limited by the range, price *minus* prescribed margin.²

It is notable that the power given to the Board is to make regulations directly controlling transactions entirely outside the Federal Reserve System. Brokers, dealers, and members of national securities exchanges are forbidden to lend to anyone on registered securities in excess of the amounts allowed by the margins regulations. Brokers, dealers, and members of national securities exchanges ^{they} may not borrow on registered securities except (a) from member banks or (b) from non-member banks who have agreed to observe all the rules imposed in this matter on member banks, or (c) from other brokers, &c., in accordance with regulations of the Board of Governors.

The first regulation made in exercise of this power was the Board's Regulation 'T'. This controlled the dealers, brokers, &c., only, leaving security speculation financed by direct bank loans not directly touched. But after eighteen months it appeared that the banks were taking advantage of their freer hands and, by Regulation 'U', lending by banks for security trading was put on the same footing as lending by brokers, &c.

¹ Marriner S. Eccles, in *Federal Reserve Bulletin*, Nov. 1946.

² The margin is calculated on the market price of the security: if the price falls, the borrower has to put up more cash.

Regulation 'U' is binding on all banks, whether members of the Federal Reserve System or not.

When these regulations were first imposed they adopted, in prescribing the margins, an ingenious but elaborate formula¹ which the 1934 Act had laid down as standard but had not laid down as obligatory. A loan on a security was not to be greater than whichever was the higher of

- (a) 55 per cent. of the current market price of the security;
- (b) 100 per cent. of the lowest market price of the security after 1 July 1933, but not more than 75 per cent. of the current market price.

This meant that as long as the price was less than 133 per cent. of the lowest price since 1 July 1933, the customer could borrow up to 75 per cent. of the market price, because up to that point (b) would be the effective rule and 75 per cent. of the market price would not exceed 100 per cent. of the lowest price. As the price advanced beyond 133 per cent. of the lowest, the amount borrowed could not be increased at all until, at 182 per cent. of the lowest, rule (a) (above) became the effective limit. At this point (182), 55 per cent. of the current market price would equal 100 per cent. of the lowest price, so that for all higher prices the loan limit would be 55 per cent. of current market price. Thus between the price points 133 and 182 no additional amount could be borrowed on a security

¹ It was explained fully in the *Annual Report* for 1935, on which the following passage is based.

on account of its rise in market value: the profit of the rise could not be withdrawn or used as a margin for further borrowing. This limitation of additional borrowing restricted, in a market phrase, 'pyramiding' of speculative purchases, and the price range 133-82 was therefore called the 'anti-pyramiding zone'. Above 182 profits could be withdrawn at the rate of 55 per cent. of the further price rise—i.e. pyramiding once more became possible. Late in 1935 most active stocks in fact rose above the anti-pyramiding zone, and early in 1936 the Board prescribed increased margins, with the effect of raising the top of the anti-pyramiding zone to 222.

Great though the attractions of this formula were for putting the brake sharply on borrowing in a rising stock market, changing circumstances would in course of time have made it inappropriate, in that individual stocks would move in price relatively to each other, making quite arbitrary, as a regulator of speculation, uniform percentage increases on the prices ruling on 1 July 1933. However, the Board did not wait for this basis to become seriously out of date, and in the course of 1936 dropped the complicated formula in favour of a flat percentage margin requirement. The Board gave simplicity as its justification.¹ Since that

¹ 'A margin requirement expressed as a single percentage of current market value is simpler and more easily understood than the statutory formula, and has also long been generally used by banks in determining margins on security loans. It was the judgment of the Board, therefore, that a flat rate for banks would best serve the public interest. For the sake of uniformity the same requirement was adopted also for loans by brokers.' (*Annual Report for 1936*, p. 33.)

date the Board has adhered to the flat percentage formula.

The Board raised the percentages (of cash margins required) during the recovery of 1934-6, and dropped them sharply in the autumn of 1937, when the general business recession seemed to call for every possible stimulus to enterprise. After that the percentages remained unchanged until nearly the end of the war. An official writer just before the war commented that experience had 'not been sufficient to test their effectiveness thoroughly'.¹

During 1945 the Board made considerable use of this new weapon with impressive results.² In the inflationary reconversion phase of 1946 the margin-requirements were held for over a year at 100 per cent.—i.e. dealings had to be on a strictly cash basis. It is interesting to notice that, in an article in the *Federal Reserve Bulletin*,³ the Chairman of the Board ascribed this policy not simply to stock-market conditions but to the broader economic situation:

We are not justified, for example, in fixing margin requirements exclusively by reference to the movement of stock prices, as some people have suggested. The general credit situation must be the main criterion, and this in turn is an integral part of the general business

¹ E. A. Goldenweiser, in his chapter, 'Instruments of Federal Reserve Policy', *Banking Studies* (Washington, 1941), p. 406. The Board of Governors had in their 1937 Report expressed the view that by diminishing the amount of forced liquidation when the collapse came, the high margin-requirements during the boom moderated the slump as well as the boom (p. 10 of *Annual Report for 1937*).

² See *Annual Report for 1945*.

³ Nov. 1946.

situation. When margin requirements were fixed at 100 per cent., the general credit situation was highly inflationary because of the immense volume of purchasing power in the hands of investors and the general public . . . this is not a time for encouraging new issues even for production purposes because with the scarcity of materials and labor, it would only add to the inflationary pressure.

This is not a one-way street. When the situation changes, and there is need to stimulate the use of credit for purchasing securities, it will be time to consider lowering margin requirements. This would be a time . . . when there will be sufficient supplies of materials and labor to justify the encouragement of new issues of corporate securities, provided there is at the same time a prospect of declining production and declining employment.

The Board did not give the inflationary pressure much time to ease off: as from 1 February 1947 the margin requirements were reduced from 100 to 75 per cent., on the ground, Governor Eccles had indicated, that 'the most dangerous phase of post-war inflationary pressure was past'.¹

It is obvious from this post-war exercise of the weapon that the Board regards it as one of considerable influence.

3. *Regulation of Consumer Credit*

Under emergency powers, and principally with a view to discouraging non-essential production and so releasing resources for war production, the President gave to the Board of Governors of the Federal

¹ *Economist*, 25 Jan. 1947.

Reserve System in August 1941 a direction to exercise control over consumer credit during the period of national emergency. The Board's action took form in its Regulation 'W', effective as from 1 September 1941.¹

Like one of the regulations controlling stock-market credit, the Board's Regulation 'W' is binding on many people outside the banking system. All persons engaged in consumer instalment credit, or in the discounting of instalment credit paper, including dealers, mail-order houses, stores, finance companies, loan associations and so on, have to be licensed by the Reserve Board. Their transactions must conform with rules laid down by the Board, prescribing 'down payments' (i.e. first instalments) and maximum maturities (i.e. the periods over which instalments may be spread). The standard terms allowed were at first (a) a minimum down payment of one-third of purchase price and (b) maximum maturity of twelve months; but there were variations for some classes of goods. The regulations do not cover all consumer credit, but only transactions (over \$50) in goods and services listed by the Board's regulations. Small transactions (those involving less than \$50) are exempt.

For the administration of this regulation—directly affecting some 170,000 licensees scattered throughout the United States—the decentralized structure of the

¹ This Regulation under emergency powers lapsed late in 1947. The next two paragraphs describe the position *before* that date. Since then there has been no such regulation, but the Board of Governors has continued to ask for permanent power of this kind.

Reserve System is most useful. The work is undertaken by the twelve Reserve Banks and their twenty-four branches, which are entities close enough to the general business activity of their regions to be able to establish and maintain the necessary contacts with lenders and dealers granting consumer credits.¹

During the war the regulations combined with other circumstances to produce a sharp reduction in outstanding consumer credit, the total for the U.S.A. being estimated at 9.5 billion dollars at the end of 1941 and about 5 billions towards the end of the war. Immediately after the end of the war there was some simplification,² as part of the general relaxation of war-time controls, the principal changes being the exemption of credits for house repairs and improvements and the extension of the maximum maturity from 12 to 18 months for some classes of loans. With the relaxation of war production pressures the volume of consumer credit jumped to 6.7 billion dollars at the end of 1945 and much farther up during 1946 and 1947.

At the time of and since these minor post-war relaxations, the Board of Governors raised the question of placing its powers in this field on a permanent footing. In the *Annual Report* for 1945 the Board stresses the part which consumer credit regulation

¹ See *Annual Report of Board of Governors* for 1941, p. 10.

² The change was not designed to be a true relaxation, but was an attempt to reduce the complexity where this could be done without weakening control of the main volume of peace-time consumer credits.

can play in controlling the inflationary pressure of the transition period, but it goes on to put a more general case:

Over the past 30 years, consumer instalment financing has come to occupy an important and strategic place in the national economy. Such financing is essential to the mass distribution and consequently to the mass production of consumers' durable goods. From time to time, however, the expansion and subsequent contraction of consumer credit have gone so far as to accentuate the upswings and downswings of the business cycle. There is no way of preventing such excessive expansion and contraction except governmental regulation of the terms on which consumer credit shall be made available, such as the down payment required on instalment sales or financing and the length permissible for instalment contracts. To provide for such regulation, by legislation which will contemplate the timely tightening and timely easing of such terms, will assist the overall program of stabilizing the national economy at a high level of production and employment.¹

The stress, as in many other recent pronouncements of the Board of Governors, is on the use of the Federal Reserve System to maintain a consistently high level of economic activity. It may be argued that the part played by consumer credit is slight. The maximum range of variation, say, five billion dollars, looks small in relation to a national income approaching two hundred billions, or aggregate bank loans amounting to thirty billions. But instalment buying of consumers'

¹ pp. 24-5.

durable goods like cars, washing-machines, radios, &c., must be the most unstable 'slice' of consumer spending, and its size in a rich economy like that of the United States does constitute a threat to the stability of the economy. Any device which can encourage its stability or, going farther, make it compensate for other variations, must be given serious attention. Experience has taught the Americans (and others) that there is no simple single remedy for the trade cycle malady, and the Board of Governors is on good ground when it urges that the Federal Reserve System should have at its disposal every weapon, however small, that is of use in combating cyclical movements. The success that has always eluded the simple faith of monetary quacks may be within the grasp of those who are ready to try many remedies at once.

4. Direct Lending to Industry and Commerce

The fact that 'every little helps' also justifies some mention of another innovation of recent years. When the Federal Reserve Banks were established they were intended to operate purely as bankers' banks, leaving to member banks all direct lending to industrial and commercial enterprise. The difficulties of the banking crisis period, in 1930-3, led to a departure from this plan. At a meeting in May 1932 the Federal Reserve Board discussed with the Governors of the Reserve Banks the difficulties of passing through to the business community the benefits of the easier credit policy being implemented by the System's open-

market operations. The meeting took the view that some effort should be made to enlist the co-operation of bankers and business men in order to secure that effective use was made of the more plentiful credit. The Reserve System thereupon arranged the appointment in each Federal Reserve District of a committee of business men and bankers, called the 'Banking and Industrial Committee'.¹

As the banking crisis developed rapidly during the ensuing months, little could be effected by the establishment of purely advisory bodies of this kind, but the movement did bear fruit in an amendment, Section 13b, of the Federal Reserve Act in 1934. By this amendment the Federal Reserve Banks were empowered to make direct advances for working capital needs to established commercial enterprises if accommodation was not forthcoming elsewhere. They were also given authority to enter into agreements with financing institutions to assume up to 80 per cent. of any loss that might occur on loans made to a business enterprise, subject to certain limitations (e.g. a maximum maturity of five years) that applied also to the direct advances. All applications had to be referred to an Industrial Advisory Committee (successor of the Committee) referred to in the previous paragraph) for the Federal Reserve District.

These powers may look odd to people used to the continuous service of a strong banking system, but in the immediate post-crisis period in America, when

¹ *Annual Report for 1932, p. 22.*

many businesses had been financially crippled by the slump and a large number of banks had permanently or temporarily disappeared, they were of some use. They were given wide publicity—in magazine articles and radio talks, for example—and applications ran into some thousands in the first few months. Advances ranging from \$250 to several million dollars, for periods ranging from a few months up to five years, were made to a wide variety of enterprises. The number of applications tailed off, however, as business and banking conditions became more normal, and the total amount outstanding was always insignificant in comparison with the total of commercial banks' loans to business. During the war the principle was extended to the provision of working capital for war contractors, but with the disappearance of war conditions the direct loans of Reserve Banks to business have dwindled once more, and it is fair to say that, though perhaps a useful little help in the immediate post-crisis conditions, this particular innovation in the Federal Reserve System is not of much interest from the broad point of view of credit control.

The Board of Governors takes the view that direct lending of this kind is not appropriate to Federal Reserve Banks, and has given its support to a bill which would substitute for the direct lending authority a provision enabling the Federal Reserve Banks to guarantee in part loans by commercial banks, particularly to small and medium-size businesses needing capital for periods up to ten years. The loans to

receive such guarantee would, it should be noticed, be less narrowly restricted than the direct loans made under Section 13b—the latter must be for working capital only, have maturities not exceeding five years, and be made only to established businesses.¹ No progress has yet been made with this latest proposal. Even if it is adopted, it will remain true that the Reserve System's weapons for 'qualitative' control are almost entirely weapons for restraint rather than weapons for the promotion of business activity.

¹ See *Federal Reserve Bulletin*, May 1947, pp. 521-3.

VII

SOME REFLECTIONS

IN preparing this sketch of American banking it has been impossible to avoid consciousness of the dynamic nature of the system I set out to describe. The American banking system is alive and constantly changing, and before leaving the subject it is worth reflecting briefly on the more fundamental changes of the past twenty years or so and the directions of contemporary development.

I

First, I have asked myself whether American banking has since the beginning of the nineteen-thirties developed an elasticity or resilience that would enable it to withstand rather than aggravate an economic crisis. If 1929-32 came again, would the reaction of the banking system again aggravate the general economic collapse, or would the system be capable of absorbing some of the shock? The answer must depend on three factors affecting the availability, at any point, of cash in exchange for deposits. The wisdom of bankers in compiling their portfolios of assets and the relationship of one banking unit to another determines the freedom with which cash flows from one point to another, while the total availability of cash in the system depends upon the efficiency of the central bank as a lender of last resort. In

all these three factors change has been in the right direction; but only in the last—the efficiency of the central bank as a lender of last resort—has there been radical change. The emergency legislation of 1933 and the Banking Act of 1935, by their wide extension of the banking assets eligible for transfer to the Reserve System in exchange for cash, have given the system an elasticity in times of crisis that it never had while the operation of a lender of last resort was presumed to be limited by the availability of narrowly defined banking assets of a particular (and not very common) type. This legislative change has been reinforced by the greatly increased proportion of Government paper in commercial bank portfolios, coupled with the Federal Reserve System's recognition of responsibility in the bond market. It is now almost unthinkable that in a time of crisis the commercial banks would fail to draw from the Reserve System a supply of reserve cash and notes adequate to meet the needs of the situation.

Confidence in the greater elasticity given by clearer recognition of the function of a lender of last resort is strengthened by consideration of the greater strength of American banking as a commercial structure. During the nineteen-twenties there were hundreds of bank failures every year. In part these reflected structural adjustments in the American economy—something parallel to the British depressed-areas problem. But they were also partly due to the inherent weaknesses of banks that were too small and too specialized in

local risks. The failures of the twenties were not offset by the foundation of new banks, and there was a vigorous weeding-out of the remaining weaker brethren by the prolonged crisis that followed the 1929 crash. When banks reopened in 1933 and 1934 they owed their survival either to their own soundness or to the Reconstruction Finance Corporation which gave support—in many cases extending over several years—to reopened banks only where there was reasonable prospect of their being able to stand on their own feet eventually. The cumulative effect of decades of detailed and frequent bank examination by the official agencies—especially where the Federal Reserve System made deliberate educative efforts—must also have told in the same direction. Altogether, though it is impossible for an outsider to produce any conclusive evidence, it is reasonably certain that American commercial banking is in an appreciably stronger condition than it was twenty years ago.

The establishment of the deposit insurance system also has an important bearing on the resistance of the banking system to panic. Practically all the commercial banks now participate in the Federal Deposit Insurance Corporation, and the protection thereby given to the mass of depositors should check the development of hysterical withdrawals. On the other hand, owing to the limitation of protection to the first \$5,000 of a deposit, over half the dollar total of deposits is uninsured. Unfortunately, experience has shown that the big deposits (and it is the big deposits that

are unprotected) are more liable than small ones to panic withdrawal. (This is not surprising, since big firms and wealthy individuals can change the location of their bank deposits with relatively little inconvenience.) This deposit insurance system has its main justification in the social desirability of protecting the small man's savings, and cannot be regarded as a hundred per cent. defence against a temporary collapse of the banking system, but it must be counted a strengthening element.

II

When English banking was going through a similar phase, much of the increasing strength was associated with the amalgamation movement. In America legal and political obstacles have precluded any comparable integration. The twenties, it is true, saw a good deal of integration in the shape of the development of chain and group banking over large parts of the country and the concentration of banking business in New York and some other great cities into the hands of a few giant corporations. But since the crisis years there has been no spectacular development, the number of banks having fallen only very slowly from 16,000 in 1934 to 14,000 in 1947. It is worth asking whether by this avoidance of integration in their commercial banking the Americans suffer any significant disadvantage. Is American banking as safe, as convenient, as cheap as the great branch-banking systems of other advanced countries?

In examining the safety aspect it is well to remember that the depositor looks for 'safety' of two kinds. He looks to *ready* availability of his money, and he looks to availability eventually of *all* his money.¹ As far as readiness is concerned, what has been said above on the functioning of the lender of last resort is highly relevant: with widened powers and greater understanding of the Federal Reserve System it seems probable that the general run of banks could quickly obtain huge amounts of cash for meeting panic demands. Even so, it is scarcely to be supposed that the lender of last resort would lend without any regard whatever to the portfolios of individual banks, and a crisis might disclose to the Reserve System the complete unsoundness of a few small banks, who would then fail to get support and would have to close their doors. This cannot happen in a great branch system, where unsoundness of business in a particular section can be covered by the stronger position of the greater part of the bank. On this count, therefore, the American system now bears closer comparison than hitherto with the systems of other countries, but it still lacks the universal assurance of the branch banks which are so gigantic that they cannot be allowed to close their doors.²

¹ This twofold interest is reflected in the desiderata of the banker's assets. For a discussion of this, see my *Modern Banking*, Chap. IX.

² It has, however, been suggested that when in 1932-3 the Reconstruction Finance Corporation was helping banks, it favoured especially the larger banks whose collapse would have been more resounding.

The depositor also wants to have *all* his money eventually. From this point of view the processes of weeding-out of inefficient banks during the prolonged crisis following 1929 and bank examination extending over decades, referred to above, have probably brought the average quality of bank loans up. More important is the great increase in the proportion which Government securities bear to deposit liabilities—the deposits have become in large measure claims to fractions of Government bonds. For these reasons the security of the deposit has probably become generally comparable to what it is in other advanced countries. The under-\$5,000 deposit is, moreover, almost universally protected by the deposit insurance scheme. Only the larger deposits in the small localized banks in industrially specialized areas can be in any appreciable danger from falling asset-values.¹

As to convenience, the period since the establishment of the Reserve System has seen a great change. Until that date the correspondent system, directly or indirectly linking banks in all parts of the country, provided the mechanism for remittances from one place to another. This did serve the purpose, but it was slow and it was marred by the commissions charged—not only by the intermediaries but also by the drawer's own bank. The Reserve System has provided a mechanism for rapid transfers (telegraphic as

¹ What is said below (p. 121-2) about the sensitiveness of banks to falling bond prices has little relevance at this point, since we are considering only the danger of ultimate loss in the case of orderly liquidation.

well as postal) and has insisted on the elimination of payment charges. The result is that now remittances can be made almost as conveniently from one place to another in the United States as in the branch systems of other countries. There may be some remote parts where service is slow, and there are still some banks not on the 'par clearance list'—i.e. not working in the Reserve System arrangement for clearing cheques without deduction.

As to other services, the principal peculiarity of the American unit system is that the smaller banks cannot provide adequate loan facilities for the really big business borrowers, who in consequence go to the large banks. There are various working arrangements between banks in a chain or in correspondent relation with each other for spreading loans over a group of small banks, and the commercial paper market provides another route through which a small bank can provide satisfactory accommodation for a big business borrower. But firms do not want their financial secrets to be passed from bank to bank, often they do not want to have it known in the commercial paper market that they are borrowing substantial sums; and it is not surprising, therefore, to find that they have no time for the little country bank and go straight to the big town bank which can within its own four walls provide them quietly with the loans they require. This does, of course, sometimes mean a loss of convenience: the little bank is often handier; often, too, it is the little local bank that has the knowledge

of a firm's back history that keeps the risk element (and so the interest charge) down.

The great local concentration of banking in the hands of a few institutions which are not allowed to have branches does sometimes imply inconvenience for customers. The extreme case is, perhaps, Chicago, where the central portion of the city is provided with only two bank offices, a few hundred yards from each other. The customer often has a long way to go before he gets to the bank.

Lastly, does the American find his banking services provided as cheaply as elsewhere? One way of looking at this is to consider the cost of the aggregate of banking services, while the other is to consider the distribution of charges. The cost of running American banking is probably rather high, as it is impossible to get the economies of large-scale organization—every little bank has to have its own president and hierarchy of chief officers, and they must cost more than the officers who are their opposite numbers in a branch system.¹ On the other hand, the American does get from these little bankers a range of services for which in England he would often go to a solicitor or an accountant or both, and the convenience of getting all these services at the same counter must be set against the relative costliness of exalting branch managers into independent bankers.

When we consider the distribution of charges, the

¹ The profit/assets ratio is in general lower for the larger banks than for smaller banks,

outstanding point is the wide range of interest rates charged on loans—far wider than in England, though perhaps not so much wider than in Canada. Particularly it is noteworthy that the big firm wanting a big loan, though it cannot always get the facility at the little local bank, can and does get a preferential rate of interest as a result of the sharp competition between the larger banks in a town. This does, of course, have some parallel in England, where enough competition remains to force some pruning of rates. In both countries the tendency undoubtedly is for the big borrower to get off rather cheaply, and perhaps in America more than elsewhere the load on the little borrower is rather heavier.

To sum up, the contrast between banking services in America and England is nothing like so sharp as it was forty years ago. Indeed, in most respects there is probably little difference. For the small depositor whose transactions are highly localized banking is probably as safe, as convenient, and as cheap in America as it is anywhere else. For the larger customer, especially if his business spreads far and wide, the deficiencies inherent in a unit system have not been completely overcome, though he seems to do pretty well as a borrower. In some places—even in as large a city as Chicago—there are too few banking offices to afford customers reasonable convenience in ‘going to the bank’, but in many places the inevitable American car reduces this inconvenience to a triviality.

III

The great increase in the part played by Government paper in the portfolios of the commercial banks has a number of implications. It contributes, as we have already seen, to the increased strength of the banks both directly, in so far as they hold Government paper to its maturity, in that there is no risk of loss of capital, and indirectly, in that such paper is 'eligible' for borrowing at the Reserve Banks in case the cash should be needed before maturity. The efficacy of the traditional weapons of credit policy is also affected. The action of the Reserve Banks in controlling interest rates has a direct significance for the solvency of the commercial banks—a rise in interest rates would at once reduce the market value of their bond portfolios. It appears that this consideration is partly responsible for the present determination of the Reserve System to maintain a stable bond market, which in turn implies abnegation of control of the quantity of bank credit. Commercial banks can freely extend their loans to the business world, knowing that they can obtain the necessary funds by unloading Government paper (at stable interest rates) on to the Reserve System. Activity in fixing the price of credit implies, of course, passivity in regulating the quantity of credit outstanding. The market comes and gets as much as it wants at the officially fixed 'pattern of rates'.

Realization that the stable bond market policy combined with the huge bank portfolios of Government

paper gives business and the commercial banks the whip-hand in getting the quantity of money which business wants has recently worried the Federal Reserve authorities and has stimulated some rises in the short- and medium-term rates. Concern at their loss of control had already led the Board of Governors of the Reserve System to produce, in its *Annual Report* for 1945, proposals designed to give the Reserve System power to regulate the proportion of Government paper held in commercial bank portfolios. By requiring the member banks to hold certain minimum proportions of specified (short-term) Government paper, just as they are required to hold certain proportions of 'cash' reserves at the Reserve Banks, the new law would restrain the commercial banks from greatly increasing their business loans on the existing cash basis.¹ On the existing figures such restraint could not be effective unless the minimum ratio for Government paper were fixed at very high levels—for nearly two-thirds of the total earning assets of the commercial banks are United States Government securities, and even the very short-term Government paper represents nearly 20 per cent. of total assets.²

Fixing the new ratios initially at a high level would not, of course, imply always holding them at an equally high level. The important thing is that fixing at a

¹ The English banks could in the same way be restrained in expanding advances by being called upon to hold specified proportions of Treasury Deposit Receipts.

² It should, however, be remembered that the ratios vary greatly from one bank to another.

sufficiently high level would give the Reserve System a control over the lending behaviour of the member banks, a control not afforded by the Reserve System's existing control of the cash basis. If a new power of this kind were conferred on the Reserve System, it would obviously be reasonable to make it a power to *vary* the ratios as well as to fix them initially. Undoubtedly this would be a great advance in the power of the Reserve System.

Opposition to this proposal is, however, substantial enough to make it an unlikely starter unless some cataclysm provokes a sudden reconsideration of the technique of monetary policy. And perhaps the commercial banks are fundamentally right in their opposition. For if a very large proportion of the bankers' assets are to consist of cash and Government securities, and if the fixing of high and variable minimum ratios for such assets is to be within the discretion of the Reserve System, what is there left for the commercial banker to do? What is there to justify his place as a competitor in a private enterprise economy? Historically the commercial banker justified his existence—earned his profit—by exercising his discretion in maintaining a safe liquidity distribution of his assets and in deciding who were proper borrowers to figure in the less liquid (and substantial) part of his portfolio. Now the business of lending to industry and trade has dwindled to relatively small proportions (though the absolute figures remain large) and the commercial banker's present main functions are quite

different from those which gave him his historical position. They are:

1. To keep the accounts of the public—i.e. to register debits and credits between individual customers, and
2. In effect to split up the short-term Government debt into notes of infinitely variable size to meet the public's convenience.

It is, fundamentally, recognition of this last point that has led to action in Australia and suggestions in the United States designed to regulate interest on the bank-held Government debt in such a way as to regulate the total earnings of the banks, breaking such special interest rates entirely away from all market rates of interest.

The uncomfortable reflection of the commercial banker must be that, while his historical functions did call for the exercise of personal judgement, experience in business and so on, and did therefore justify his profit-earning place in private enterprise, the two major functions he performs nowadays call for very little of the typically private-enterprise qualities, and could in fact be very well covered by a completely integrated, publicly owned, and publicly controlled banking system.

But this is perhaps taking too extreme a view. While there are still some thirty billion dollars outstanding on loans, there is obviously still plenty of room for the banker's discretion, though it may well be that the banker can only maintain this reduced outlet for his

loans by taking an increasingly catholic view of the purposes for which he lends. To protect his income he will probably have to charge more commonly and at higher rates for the service of keeping customers' accounts. This, it will be realized, is not quite so easily done in the highly competitive atmosphere of American banking as it is in the imperfect competition ruling in other Anglo-Saxon countries. In one way and another no doubt the commercial banker will be able to continue to earn a living, but he will do well to remember the implications of the shifting sources of that income.

IV

Perhaps it is also too early to assume that central banking has finally abandoned, in favour of 'qualitative controls', its traditional manipulation of the quantity and price of credit. It is noteworthy that one of the justifications most widely and authoritatively adduced for the 'stable bond market policy' is that many commercial banks now hold such a substantial proportion of their assets in the form of medium- and long-term Government securities that a fall in the prices of such securities, by impairing the balance-sheet position of the commercial banks, would shake those banks very directly into deflationary attitudes. The Reserve System is now a big enough element in the bond market to be able to produce a fall in prices by its own direct operations, and if, for the reason just given, the commercial banks would be sensitive to such a fall, the Reserve System has now at its command

a rate of interest weapon for influencing the lending policies of the member banks perhaps more powerful than the Discount Rate ever was.¹ The weakness of the Discount Rate weapon (even reinforced by open-market operations) was often due to the fact that when the Reserve System wanted to raise rates it was because trade was booming; and naturally in such conditions the banker was taking a rosy view of the value of his chief assets—loans to business. Rising short-term interest rates could then have little dampening effect on bankers' lending policies. Now, on the other hand, the loans to business play a small part, and the Reserve System can directly force depreciation of a substantial slice of the bankers' security portfolios. If in these changed circumstances the Reserve System should decide that it wants to use rising interest rates as a deflationary influence, it can act not only with direct effect on the bond market but also with the expectation of rapid effect on the lending policies of the commercial banks.

In suggesting this it is, of course, important not to lose sight of the fact that neither the bankers' attitude nor the rate of interest has been in recent times a powerful factor influencing the course of trade activity. Moreover, we are assuming throughout that the business man is much less dependent than he used to be on loans from the banker. Consequently, although the

¹ This implication of the increased bond holdings of banks was noted in the Reserve System's *Annual Report* for 1938 (p. 19): obviously the war-time growth of bank bond holdings has strengthened the argument.

commercial banker may have acquired a new sensitiveness to the Reserve System's policy, the business man is probably becoming less sensitive to the attitude of the commercial banker.

All this is necessarily somewhat speculative. What is certain is that the American banking system will continue to develop rapidly. In some (but not all) ways its development has in fifty years passed through phases that have occupied more than a hundred years in England; and it would not be surprising if this more rapid development in America should continue. That this is so is due in no small measure to the glare of light to which American banking development has been exposed. In many other countries the altogether proper respect for customers' confidences has been extended into an almost fanatical secretiveness which, while no doubt always convenient for the authorities and occasionally genuinely protective of the social interest, has made intelligent discussion difficult. America, on the other hand, has had no parallel to the black-out which descended on English banking about eighty years ago (and has been only partially lifted). Sound development of banking structure and banking policy have in the United States been gravely handicapped by the political structure and the continental geography of the country, but at least they have the advantage of a blaze of publicity to promote the formation of intelligent opinion and wider understanding.

A FEW FIGURES

THE figures given below are extracted from the official publications of the Federal Reserve System. Many others are given in the text, but readers may find it convenient to have a few collected together for ease of reference.

In comparing these figures with those for other countries it is useful to remember that the area of the U.S.A. is about 3,000,000 square miles, the population 140,000,000, and that the national income has since the end of the war been fluctuating around \$200 billions a year.

TABLE I. *Number of Banking Offices 30 June 1947*

A. *Bank Head Offices*

Member banks (all National)	5,012	
Member banks (State)	1,916	
	1,916	
Total member banks		6,928
Non-member banks (State)		7,134
		7,134
Total commercial banks		14,062

B. *Branches*

Of member banks (National)		1,813
Of member banks (State)		1,155
Of non-member banks (State)		1,081
		1,081
Total bank branches		4,049

C. *All Bank Offices*

Head offices		14,062
Branches		4,049
		4,049
Total bank offices in U.S.A.		18,111

TABLE II. *Main Classes of Assets and Liabilities of all Commercial Banks 31 December 1946*

<i>Assets</i>	<i>\$ millions</i>
Loans	31,122
United States Government Securities	74,780
Other Securities	8,091
Cash Assets	34,223
 <i>Liabilities</i>	
Inter-bank Deposits	12,656
Other Demand Deposits	92,446
Other Time and Savings Deposits	33,930

TABLE III. *Member Bank Reserve Balances*

	<i>\$ millions</i>	
	<i>Total</i>	<i>Excess over legal minimum requirements</i>
End December 1946	16,139	562
End June 1947	16,081	674

TABLE IV. *Interest Rates*
(mid-1947) (all per cent. per annum)

A. *United States Government Security Yields*

3-months Bills	0.376
9-12 months Certificates of Indebtedness	0.85
3-5 years Taxable Notes	1.19
7-9 years Bonds	1.47
15 years and longer Bonds	2.19

B. *Reserve Bank Rates*

1. For advances to member banks against Government obligations, and discounts and advances secured by 'eligible paper'	1
2. For other secured advances	1½
3. Buying rate for Treasury Bills	0.375
4. Buying rate for bankers' acceptances	1

*A Few Figures**C. Legal Maximum Rates on Time Deposits in Commercial Banks*

1. For less than 90 days	1
2. 90 days to 6 months	2
3. Other Time Deposits and Savings Deposits	2½

D. Open-market Rates in New York

1. Prime commercial paper 4- to 6-months	1·00
2. Prime bankers' acceptances 90 days.	0·81
3. Stock Exchange call loan renewals	1·38

A NOTE ON FURTHER READING

FOR full official information about the Federal Reserve System and the commercial banks the reader should go to the publications of the Reserve System itself. Of these the important regular items are the *Annual Reports*, issued about the middle of each year, and the monthly *Federal Reserve Bulletin*. The latter includes not only regular statistics and authoritative comment on them but also special studies from time to time (e.g. in a series of articles about the business loans of member banks, in some of the 1947 issues). In 1941 the System issued a volume of *Banking Studies*—authoritative chapters by experts covering practically all U.S.A. banking topics. (This was reprinted in 1947.) In 1943 a comprehensive volume of *Banking and Monetary Statistics* was issued.

Among the numerous American unofficial studies the following are the most useful:

W. RANDOLPH BURGESS, *The Reserve Banks and the Money Market* (Harpers, New York and London).

This standard work by an outstanding practical banker refers mainly to the position in the 1920s and early 1930s, though the Revised Edition of 1946 contains some later speculations.

S. E. HARRIS, *Twenty Years of Federal Reserve Policy* (Harvard University Press, 1933).

Covering 1913–33, this is the most complete historical survey. Being written from a somewhat negative viewpoint it lacks cohesion and is apt to bewilder the reader, but for purposes of reference it is invaluable.

- C. O. HARDY, *Credit Policies of the Federal Reserve System* (Brookings Institution, Washington, 1932).
- W. W. RIEFFLER, *Money Rates and Money Markets in the United States* (London, 1930).

Readers interested in the early history should consult the exhaustive bibliography in Harris's *Twenty Years of Federal Reserve Policy*. One of the best earlier works on the constitutional side is H. P. Willis, *The Federal Reserve System*.

On commercial banking a very good survey, attractively written but now getting a little out of date, is Goldschmidt, *The Changing Structure of American Banking* (London, Routledge, 1933).

No serious student can afford to miss the relevant passages scattered through Volume II of Keynes's *Treatise on Money*, although the events of the nineteen-thirties made some of Keynes's comments look a little odd.

For the development of relations between the Reserve System and the Rooseveltian Treasury see G. G. Johnson, *The Treasury and Monetary Policy, 1933-8* (Harvard University Press, 1939).

For recent developments and speculation on future trends there have been some stimulating articles in the last few years in the *American Economic Review* and the *Quarterly Journal of Economics* (see especially articles by C. R. Whittlesey, Allan Sproul, and E. A. Goldenweiser).

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