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AUXILIARY STATEMENTS

Accompanying the Report of

The Banking and Currency Committee

on

THE FEDERAL RESERVE SYSTEM

**FINANCE DEPARTMENT
CHAMBER OF COMMERCE OF THE UNITED STATES
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AUXILIARY STATEMENTS

Accompanying the Report of

The Banking and Currency Committee

on

THE FEDERAL RESERVE SYSTEM

- I. The Rediscount Operations of the Reserve Banks.
 - II. The Open Market Operations of the Reserve Banks.
 - III. Guides to Reserve Credit Policy.
 - IV. The Structure and Control of the Reserve System.
 - V. Reserve Requirements for Reserve and Member Banks.
 - VI. Federal Reserve Notes and Other Currency.
 - VII. Membership of the Reserve System.
 - VIII. The Reserve Banks and the Use of Bank Credit by the Security Market.
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Better Banking under the Federal Reserve System (reprint).

December, 1929

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These Auxiliary Statements are bound together in one volume for convenience of distribution and consideration in connection with Referendum No. 55.

I

The Rediscount Operations of Reserve Banks

I. Legal Controls of Discounts

The difficulties of depending upon precise rulings on eligibility of paper offered for rediscount are considered in this section. The volume of eligible paper held by member banks is also given attention. This discussion is an amplification of the treatment given these subjects in Section V of the Committee Report—Lending Operations—and in Section II—Reserves and Note Issues of Federal Reserve Banks.

In regulating rediscounts, the reserve bank's problem is primarily to devise arrangements which will exercise a salutary influence upon member bank credit methods and which will be fair and equitable as between different banks. Secondly, the task is to meet mass credit requirements effectively. In prescribing rules of equity the Act does not go very far. Section 4 states that reserve accommodations shall be "made with due regard for the claims and demands of other member banks." In Section 13 the qualifications of eligible paper are outlined. From these two sections the claim was early developed that unless the rights of other member banks were being infringed upon, the possession of eligible paper should establish an *a priori* right to reserve accommodation.

The Conditions Under Which Member Banks May Request Rediscount Accommodations

This interpretation was given some support by the theories underlying the legislative discussions which preceded the writing of the Reserve Act. In these discussions it was again and again enunciated that, save for a few exceptions, eligible paper was to be limited to commercial paper of an automatically liquidating character, and that the discount of this type of paper would serve the two-fold purpose of, first, encouraging member banks to prefer liquid paper, and, second, lessening the danger of credit inflation. Such credits, it was held, would bring goods to the market to offset the increased volume of credit and thereby tend to leave undisturbed the supply and demand relationships of the market place. According to this emphasis, it would appear that the principal regulating influence of the reserve authorities must be expressed in the precise determination of eligible paper in the rulings and regulations of the Board.

Eligibility the Original Safeguard in Rediscount Advances

It is true that many misgivings were expressed with respect to the benefits which might be derived from the formulation and strict observance of careful and precise rulings. Many banks asserted that they did not

Doubts Concerning Control by Eligibility Rulings

customarily hold in their portfolios any large volume of eligible paper. Many critics inquired whether there would be practicable means of preventing a bank from advancing to non-commercial undertakings funds secured by the discount of eligible paper. Others expressed doubt as to whether the general current position of the maker was not more important than the uses of the borrowing intended in a specific operation.

Nevertheless experience was required to demonstrate the limitations of control by means of rulings and definitions. Some time had to elapse before it became clear that attempts to distinguish between commercial and capital projects must involve a great amount of arbitrary discrimination.

To illustrate these difficulties, let us take the case of a gas plant which buys coal for manufacture into gas. This concern is just as clearly entitled to have considered eligible the notes it offers its bank to finance coal purchases as those of a coal dealer who sells the coal. From an economic standpoint it makes no difference whether the coal is sold in the form of coal or in the form of gas.

But will the proceeds of the borrowing be employed to purchase coal? May they not be actually used for some capital purpose, as, say, the acquisition of machinery? In the meanwhile, the coal debt may be carried as a book claim by the seller who in turn borrows from his bank in order to carry the debt. To relate the amount of the gas company's note to its coal purchases would be troublesome; consequently, it became inevitable that principal importance would come to be attached to the showing of quick assets on the gas company's books rather than upon the use of the proceeds of the borrowing in the particular transaction.

What, however, develops for any particular concern a satisfactory relationship of current assets to current liabilities? Many considerations influence the general ratio, not all of them related to the commercial character of the operations upon which money is borrowed. Conservatism in making dividend payments, liberal initial provision in providing working capital by security sales, speed of collections, margins of profits, these and many other factors help to establish a good current ratio. Concerns, with such a ratio, in borrowing will create paper the reserve banks must consider eligible. But the dollars thus obtained may be employed by the borrowers for non-commercial activities.

Absolutely accurate tests of eligibility are not possible. Even if such tests could be devised, reserve banks might help to engender price inflation by discounting on easy terms too much paper, each instrument of which could be classified as "automatically liquidating." At a time of a trade boom, when labor is fully employed, when raw materials are scarce, liberal commercial credits simply increase the competition between em-

ployers for the limited supply of available labor and materials, with the result of an increase in the price of labor and materials. These price increases, by the working of economic law, in turn may be passed on to the consumer. The argument that commercial credits do not tend under any conditions to inflate prices is based upon the assumption that at all times a marked expansion in production and distribution is possible. Every business man knows that economic stages are reached when this is impossible. The only means of discovering the effects of commercial credits is to attempt to relate the gross volume of trade and production to the mass supply of credit. The inflation problem involves general and quantitative more than individual and qualitative analysis.

This is not to argue that the reserve banks should discount all types of paper, investment and speculative, as well as commercial. The demand for these credits depends upon hopes and predictions running so far into the future that it might be difficult to restrict the creation of this type of credits within a proper volume, particularly on occasions of excessive optimism. But the point we desire to establish is that danger may result also from the overissue of commercial credits. Reserve credit policy involves much more than correct definitions of eligibility.

The validity of the early position taken by some that the mere possession of eligible paper establishes the right of the member bank to borrow is rendered further doubtful in practical application by the fact that amendments to the Reserve Act have made eligible agricultural paper of longer maturities and have also empowered reserve banks to discount member banks' notes collateralized by government securities. In each of the last few years it has been officially estimated that member banks' holdings of eligible paper together with their possessions of United States government securities, have aggregated amounts exceeding eight billions of dollars. This amount is almost eight times as large as the total borrowings from the reserve banks at any time in recent years and is more than two and a half times as large as aggregate reserve discounts at their maximum in November, 1920. On July 31, 1929, the total volume of reserve credit outstanding, exclusive of federal reserve notes, was only about \$1,300,000,000. At this figure the discount of all eligible paper member banks now possess would result in more than a six-fold expansion in the volume of reserve credit. Such an expansion could not be contemplated on the grounds of the effects either upon the reserve ratios of the reserve banks or upon the business situation.

**The Large
Volume of
Eligible
Paper**

It has come to be pretty generally conceded that the language of the Federal Reserve Act is permissive with respect to rediscounting, and not mandatory. Indeed, court action has upheld that interpretation. Section 13

of the Act states that a reserve bank "may" discount paper of the classes mentioned. As pointed out later, the indorsement required of the presenting member bank would lose some of its significance if the condition of that bank were not an element given consideration in the decision as to the acceptance of the paper by the reserve bank for rediscount.

In reply to the assertion that member banks possess in the aggregate a large unused volume of eligible paper, the point is sometimes made that banks in particular communities are hard pressed, nevertheless, to find sufficient collateral for borrowing from the reserve banks. Admittedly, however, this difficulty could be met in some situations by altering the character of the member banks' lending and investing operations. In other situations, it may be true that the previous extension of unsound credits has put the member bank in a condition where it can borrow very little either from its reserve bank or from some private correspondent. From the standpoint of the community's welfare it might possibly be desirable that borrowing restrictions be relaxed. But to liberalize further eligibility restrictions for the sake of aiding such communities must tend to encourage unsound banking practices. With member banks in the aggregate usually possessed of six or eight times as much eligible paper as they employ for rediscount accommodation, it can only be inferred that a bank without borrowing collateral has been failing to take proper steps to maintain its liquidity.

A careful study of its rulings leads to the conclusion that the Federal Reserve Board has not been illiberal or over-technical in its definitions of eligibility. Many therefore are concerned because member banks, instead of being possessed of an insufficient quantity of eligible paper, are now as a class in a position to make excessive demands upon the pool of reserve credit. Those who harbor this apprehension advocate a general revision of eligibility definitions and in particular the restoration of the earlier situation wherein eligible agricultural paper was of a shorter maturity and wherein government securities could not be employed as the collateral for direct borrowings by the member banks from the reserve banks. If only, so it is asserted, the commercial character of the member bank's paper could be more firmly insisted upon, other restrictions upon the extension of reserve credit would not be so necessary and member banks' borrowings would be regulated by more automatically operating principles.

Waiving here any discussion of this question, which has been referred to above and elsewhere, it should be pointed out that the problem at the present time is not exactly similar to that existing at the time reserve methods were being developed. We now have an established situation to deal with and rediscount procedure has been adjusted to present law. Any

extensive redefinitions of eligibility, by altering existing conditions, might bear unduly harshly upon particular banks and communities. In times of gold outflow, furthermore, currency shortage might result if a suggestion were adopted which would decrease considerably the volume of collateral available for the security of reserve note issues.

**The Solvency
of the Member
Bank is Im-
portant**

But, of more importance, the whole theory of eligibility control seems to have stressed too highly the solvency of the reserve bank, and to an insufficient extent the effect upon the condition of the member bank and the safety of its depositors. When a member bank discounts, it pledges perhaps its most valuable paper. As long as the remaining portion of its paper is sound and its maturities properly distributed, the surrendering of eligible paper may not impair its solvency. In obtaining reserve credit it exchanges time paper for the quickest kind of assets—reserve credit or currency. But if the credit thus obtained is employed to expand long-time or doubtful loans, the effect of the borrowing is to weaken the position of the banks' depositors. In case of failure, depositors might find that the cream of the bank's assets was collateralized with the reserve institution, leaving the other creditors of the bank with claims only to the inferior assets. If, in doubtful cases, the reserve bank, with an eye to its own safety, has demanded additional collateral the lot of the depositors becomes even more serious.

II. Rediscounting and the Condition of the Applying Bank

Section VIII of the Committee Report—Relationships With Member Banks—contains the conclusion that an important factor to be considered in the extension of rediscount accommodations is the effect of the granting of the rediscount upon the condition of the applying bank. It was argued that by this means the reserve banks could exert a powerful influence in the direction of enhancing the solvency of their members.

This conclusion is further developed in the following section, together with a brief discussion of some of the difficulties this policy would involve.

Inasmuch as the discounting of eligible paper may weaken the condition of the applying bank it would appear that the reserve banks should devote attention to the analysis of the member bank and its managerial policies as well as to the quality of the paper offered in specific applications. Applications accompanied by the tender of the best paper should not be approved as a matter of course if the applying bank is not observing the principles of

**Difficulties
of Basing
Rediscounts
Upon Solvency
Standards**

sound banking. The reserve institution should insist upon a reasonable diversification of assets, upon a proper distribution of holdings, upon conservatism in dividend payments, upon an adequate increase in capital as liabilities expand. In recent years, also, it has become increasingly important to examine carefully relationships with other institutions, particularly when the bank in question is a member of a chain system. Primary emphasis must be devoted to the bank's condition.

In insisting upon high managerial standards as a prerequisite of rediscounting, the reserve bank may encounter difficulties. In the first place, there may be opposition on the ground of the meddling into the private administration of the bank which such a policy would seem to imply. Bankers may declare that they do not need to be told by reserve officials how to run their banks. They may argue that the reserve bank should not concern itself further than to determine whether the paper tendered conforms with the law's requirements. Banks that offer the most vociferous objections may be the hardest pressed to maintain solvency. They may hold that a granting of reserve credit will give them time to work out of their difficulties, whereas a refusal will make bankruptcy and receivership imminent. In this situation the reserve bank must choose between the alternatives of precipitating immediate insolvency and of depriving depositors of ability to recover in case bankruptcy cannot be resisted. Banks furthermore may argue that in many situations they cannot obey the customary rules of sound banking without working injury to the community they serve. The building up of an adequate secondary reserve, for instance, may be resisted on the ground that funds urgently required by the community would have to be dispatched to the financial centers, there to be employed in stock exchange loans or invested in urban commercial paper.

Commenting upon the difficulty of preserving deposits for local uses, a southwestern business man observes that a national bank has advertised that seventy-three per cent of its depositors' money is in quick cash assets and on this basis of "safety first" has solicited new business.

"As its deposits," he stated, "total less than 50% of our former deposits, now placed elsewhere, only 13½% of our local resources are being used for current business. How can communities prosper under such banking handicaps as these?"

In communities that may be especially affected by agricultural depression, it is difficult to make convincing reply to these contentions. A partial answer is perhaps found in the tendency of funds released in the financial centers to be redistributed generally over the country. It should also be borne in mind that the formulation of principles of rediscount control must be based primarily upon the need of preventing the origination of such diffi-

culties. When a general emergency arises, all rules may have to be suspended. If the reserve banks had been in a position to resist the over-financing of agricultural land investment in the war and post-war years the resulting situation would not have been so serious. Difficulties of banks which cater primarily to agricultural borrowers are in high degree traceable to the willingness of banks to extend credit in those years on land security. Mortgage indebtedness in many sections mounted so high that, after the price collapse, the equity of the borrowers had in large measure disappeared. In so far as reserve credit went indirectly into these unliquid loans, banks have been paying the penalty for obtaining credit on the principle of their ability to offer eligible paper to the reserve banks instead of upon their observance of sound banking methods.

It must also be kept in mind that the staving-off of insolvency is not always desirable from the standpoint of community interest. If a bank is not urgently required, or is incapable of conservative management, the important need is to get it out of existence as soon as possible, and under conditions whereby depositors may not lose. In any event, ignoring the character of the bank's management in rediscount advances helps to create situations wherein reserve banks are pressed to dispense with usual requirements in the interests of the emergency.

So far as the objection to the interference and meddling of reserve officials is concerned, the reserve banks are in a position to argue that in lending to member banks they are insisting upon no prerogatives that member banks do not uphold in dealings with their own customers. In their own dealings with customers, banks commonly insist upon learning all the essential details of the transaction, including the intended use of the funds and the effect of the loan upon the borrower's condition. Reserve banks are under even greater obligation to determine the probable effect of their advances. They are responsible not only to their stockholding banks to protect their resources, but are vested with a general public interest. So far as the Act's authorization to analyze the condition of rediscounters is concerned, it will be recalled that Section 13 requires paper tendered to be endorsed by the member bank. It must be assumed that it was intended for the reserve banks to determine the worth of this endorsement. Otherwise, this provision of the act would be meaningless. In all events, if experience shows that it is impossible to stress management factors in granting rediscount applications, it may then become necessary to impose some limitations upon the amount which a member bank may borrow from its reserve bank.

III. The Effectiveness of Rate Changes to Regulate the Volume of Rediscounts

In Section V of the Committee Report—Lending Operations—it is argued that on account of the unwillingness of most member banks to be constantly and extensively in debt to the reserve banks, rediscount rate changes cannot be relied upon to adjust the aggregate volume of reserve credit according to the needs of the country. Consequently, open market operations must be engaged in if the reserve banks are to undertake the responsibility of providing the desirable mass of reserve credit. In the following section this view is further supported by analyzing the occasions of rediscount demand and the effectiveness of rate changes, in each situation, to encourage or discourage applications.

In providing a machinery for effecting changes in rediscount rates, the framers of the Act recognized the fact that occasions might arise when the discount of all eligible paper tendered might lead to the creation of an excessive volume of reserve credit. Consequently the reserve banks were provided with the means of increasing or decreasing the cost of reserve credit. In order to determine the efficiency of rate changes to adjust the volume of reserve credit to the desired amount it will be helpful to review the various situations which give rise to rediscount applications.

The Occasions of Rediscount Applications

The motives which lead a member bank to press for rediscount accommodations are several. The most common is perhaps merely to restore reserve balances which have become temporarily depleted. As a rule member banks do not accumulate any very large surplus reserve. Since any one bank can do little to affect the interest rate, its hope of profits depends in large measure upon keeping its resources employed to the utmost. In calculating the maximum volume of its loan operations, it is obliged to estimate the amount of credit its reserve will support. But its reserve is never stationary and is affected among other factors by the decisions of its depositors. Rapid checking against its deposits leads to the presentation to the reserve banks of a larger volume of debit items, and a loss of cash at its own counters may necessitate shipments of currency from the reserve bank. If the reserve deficiency thus resulting is small, the simplest method of restoring the required reserve may be to rediscount. Not until the reserve deficiency has become persistent may the bank find it desirable to call loans, sell investment holdings, or withdraw deposits from other banks.

On other occasions, however, the reserve deficiency will be anticipated and will not be regarded as accidental. During the regularly recurring sea-

sons of peak load, the bank may find it necessary or desirable to depend upon outside resources to avoid local credit disturbance. If the locality is experiencing distress on account of a crop failure, or a general depression of its industry, the banks may be led to remain indebted to the reserve banks for a longer period of time. In occasional situations, banks may rediscount because they calculate the operation to be profitable. They may find it possible to employ the funds in such a way that the returns offer a satisfactory margin over rediscount rate charges.

When member banks rediscount to restore momentary and unanticipated deficiencies in their reserve balances, the height of the discount rate will exert some influence upon the speed with which member banks will proceed in discharging their rediscount indebtedness. The higher the reserve rate, the more intensive will be the efforts of member banks to obtain funds elsewhere to pay off rediscounts or to lessen their volume of net deposits requiring reserve. In similar fashion high reserve rates will operate to restrict duration and consequently the volume of outstanding rediscounts during periods of seasonal stress, local disaster, or general depression. Assets of the secondary reserves, which commonly yield low average interest, are not profitable when the member bank is able to retain them only on terms of sustaining relatively high charges at the reserve banks. Furthermore, no bank can be expected to ignore profits considerations entirely in meeting the distress needs of its community. Rediscounting for profit, moreover, is of course directly influenced by the height of discount rates.

There are many limitations, however, upon the power of increased discount rates to discourage the use of reserve credit by member banks. In the first place, as is above indicated, the demand for reserve credit arises on account of reserve deficiencies which have resulted from earlier lending and investing activities of the member institutions. The bank which has been extending credit relatively liberally is likely to find itself at a later date a loser in clearing settlements. But the extent to which an expansion of credit is likely to result in an adverse clearing balance must always be largely a matter of conjecture; and will depend, among other factors, upon the rapidity with which the bank's own depositors check out their accounts, and upon the degree of credit expansion participated in by other banks. In the inability to determine with certainty the extent to which operations of a given type and volume will develop a reserve deficiency, the member bank may not be induced by the increase in the reserve discount rate to reduce its borrowings in as marked a degree as desired.

Discount rates, furthermore, must be adapted to a variety of conditions existing within the district, and must take account of wide variations

**The Influence
of Changes
in Discount
Rates**

in money rates between different localities. A discount rate which might operate to check borrowing in low rate districts might be ineffective in regions where money rates normally are high. Herein it should be noted that the attempt to establish a uniform type of paper in this country, the sale of which to the reserve banks would be the most commonly employed means of obtaining reserve credit, has not had the anticipated degree of success. The bank acceptance has gained a certain vogue, but it still requires the nurturing aid of the reserve banks. The trade acceptance campaign has for the present at least been virtually abandoned. In the absence of a system of commercial paper of more or less uniform quality, reserve discount rates have had to be adjusted to rates possessed of too high a degree of variability. In this country also the reserve administration has not had, as in certain European countries, the benefit of the custom whereby other banks normally adjust their rates so as to keep in line with the schedules of the central institution.



II

The Open Market Operations of the Reserve Banks

I. The Open Market Operations of Foreign Central Banks

In the Committee Report it was not possible to call attention to the place occupied by open market operations in the activities of foreign central banks. Brief comments are made on this matter in the following section in order to make it clear that if our reserve banks had not been granted permission to engage in other than rediscounting activities their powers would have been incomplete, as measured by experience in the central banking field.

If the reserve banks in 1913 had been granted no other powers than those of rediscount, as outlined in section 13 of the Act, there would have been many respects in which their credit activities would have been exceeded by those of European central banks. In the first place, the Bank of England, the Bank of France, and the Reichsbank were accustomed to making "Lombard" loans—loans based upon securities. In the second place, there were no "member banks" in Europe, in our sense of the word, and accordingly these central banks could generally discount for individuals, financial institutions, and banks of their own choosing. In the third place, the continental European central banks had developed the practice of dealing in gold and in foreign paper. Finally, in the case of the Bank of England, rates of discount were customarily varied according to the financial standing of the customer.

It is true that by their *rediscount* powers the reserve banks were permitted to deal in certain classes of paper not ordinarily accepted by most of the central banks of Europe. Abroad, discounts customarily pertained to short-time, double-name paper, in the form of the bill of exchange. Under Section 13 our member banks were permitted to offer for rediscount paper in the form of customers' promissory notes. Nevertheless, it was necessary, if our reserve banks were to be granted powers akin to those of European central banks, to permit them to:

- (a) Deal with other than member banks;
- (b) Vary rates at which paper would be acquired according to the financial standing of the seller;
- (c) Deal in certain classes of securities not authorized in the rediscounting section, Section 13.

It is in Section 14 that these extra powers were conveyed to reserve banks.

II. The Relative Importance of Open Market and Rediscount Operations in Federal Reserve Experience

The Committee Report defends the contention that the reserve banks must rely upon open market operations for certain purposes. It does not supply figures, such as are given below, to show the extent to which, in relation to rediscount activities, the reserve banks have engaged in open market operations.

**Intended
Importance
of Open
Market
Activities**

Because of the method adopted of organizing the Reserve System, special force was given to the argument that rediscounting should constitute the principal activity of the reserve banks. Unlike the Bank of England and the Bank of France, the reserve banks did not develop as private institutions. They were created, of a sudden, by the stock contributions of the banks which were to be their members. Consequently, it could be plausibly argued that the reserve banks should offer their facilities only to, and only at the behest of, member banks.

For reasons shortly to be enumerated, the powers of the reserve banks were not confined solely to rediscounting. Nevertheless, the general belief was prevalent that open market activities would be largely subsidiary.

**Development
of Open
Market
Activities**

As the Reserve System developed, however, open-market activities have by no means been subordinated. This is brought out by the figures of the following table:

In thousands of dollars

Year	Average daily holdings of all classes of bills and securities	Discounted bills, average daily holdings	Percentage of bills discounted to bills and securities of all classes	Percentage of open market holdings to bills and securities of all classes
1916.....	164,583	24,416	14.8	85.2
1917.....	440,499	193,082	43.8	56.2
1918.....	1,557,038	1,140,053	73.2	26.8
1919.....	2,487,483	1,908,198	76.7	23.3
1920.....	3,242,679	2,630,370	70.8	29.2
1921.....	2,160,179	1,804,305	83.5	16.5
1922.....	1,187,270	573,247	48.0	52.0
1923.....	1,150,570	738,114	64.1	35.9
1924.....	950,317	374,834	39.4	60.6
1925.....	1,139,507	481,515	42.3	57.7
1926.....	1,209,309	570,613	47.1	52.9
1927.....	1,124,538	442,287	30.4	69.6
1928.....	1,467,371	839,942	57.2	42.8

In seven of these thirteen years, open market activities, as measured by average daily holdings, exceeded the discount operations.

III. Why Open Market Powers Were Granted in the Federal Reserve Act of 1913

The principal necessity of open market dealings—the adjustment of the total volume of reserve credit according to the country's requirements—is stressed in the Committee Report. This aspect was apparently not uppermost in the minds of the legislators of 1913. Accordingly, the following section summarizes the expected values of open market powers which, it appears, led the Congress of 1913 to provide such powers in Section 14 of the Federal Reserve Act.

The perhaps unexpectedly large development of open market activities renders it necessary to review the reasons advocated for their inclusion in the reserve banks' powers. At a later point in the discussion we may inquire whether other necessities for their development have arisen than were contemplated when the Act was written. The following may be given briefly as representing 1913 thought:

(a) First, there was the desire to empower the reserve banks to take positive action in the money market. Foreign central banking experience afforded many instances in which discount control alone would appear to have been ineffective. Private banks do not always follow the lead of the central bank in such matters as the fixation of rates. If they do not, the central bank may be powerless to exercise the desired influence upon gold flows, the movement of exchange rates, the course of speculation, and business activity. In Germany, attempts were made to surmount this difficulty by decreeing by statute that individual banks must fix their rates in conformity with those of the Reichsbank. Whatever may have been the value of this law in Germany, it is obvious that such a provision could not have been invoked here. Our wide variations in rates would render it economically impracticable, and opinion here would not support so bureaucratic a measure.

By the purchase of securities and bills, the reserve banks, it was held, would supply the money market with funds. On the other hand, the sale of paper would operate to remove the market's surplus of funds and thus render member banks more dependent upon discounting. By these methods the discount rate might be rendered more effective.

(b) In the second place, European experience had suggested the importance of open market activities in influencing gold flows and protecting the gold standard. By purchasing foreign bills or gold abroad, credits might be created which could be drawn against in time of need and obviate the necessity of shipping gold.

(c) Thirdly, it was felt that open market activities might be necessary to assure reserve bank earnings in times of light discount demand. Of course, it was anticipated that such activities might not harmonize with the requirements of money market control. But it was felt that only experience could supply the answer to this problem and that as a means of obviating any difficulty which might thereby result it would be preferable to rely upon the discretion of management.

(d) In the fourth place, there was the anticipated problem of encouraging the development of bankers acceptances and trade acceptances. It was foreseen that a constant and ready market for acceptances might not be provided promptly by relying upon individual banks. It seemed necessary to empower the reserve banks to deal in acceptances to remove fears of buyers that no market might be available when occasion for sale should arise.

(e) Finally, there was the problem of popularizing the use of dollar credits in international dealings and freeing our foreign trade from the risks of a fluctuating exchange and the necessity of securing acceptance credits from foreign houses. It was clear that dollar credits would not be welcome unless bills drawn against them would find a ready and constant demand. Reserve activity might be necessary to supply this support.

IV. Open Market Operations as Authorized by Section 14 of the Reserve Act

In this section there is a summary of the types of operations permitted by the Reserve Act, together with a few comments on administrative procedure.

With these open market functions in mind, we may next examine the provisions of the Reserve Act controlling the use of these powers. As regards the classes of permitted operations, Section 14 provides that reserve banks may acquire :

(a) Governmental securities, including the issues of the Federal Government of all maturities and state and municipal obligations issued in anticipation of taxes and maturing within six months.

(b) Bills of exchange arising out of commercial transactions. These would comprise the bankers acceptances and the trade acceptances, as later developed.

(c) The reserve banks were also empowered to deal in cable transfers and gold coin or gold bullion at home or abroad.

The governmental securities might be bought from or sold to foreign as well as domestic agencies.

Bankers acceptances, bills of exchange, and cable transfers might be dealt in at home or abroad with "firms, corporations, or individuals."

Whenever a reserve bank acquires a promissory note we know it is a discount and not an open market transaction. But bankers acceptances and bills of exchange may be dealt in under the authority of either section. In practice the bulk of bankers acceptances have been acquired under the banks' buying rates rather than under the discount rates. Therefore, they fall almost entirely under open market activities.

On the other hand, the reserve banks acquire the bulk of their trade acceptances, the amount of which is not large, by the discounting process.

Government securities can be acquired only under the authority of Section 14.

Promissory notes may be discounted, but not bought and sold.

It is roughly accurate to state, therefore, that open market activities include dealings in bankers acceptances and government securities. Whenever the dealing is with a party other than a member bank it must be an open market rather than a discount transaction.

Institutions
Dealt With

Differentiation
from Rediscount
Operations

V. The Inability to Depend Upon Dealings in Bankers Acceptances to Secure the Adjustment of the Volume of Reserve Credit According to the Discretion of the Reserve Banks

The Committee Report concludes that dealings in government securities are necessary in order to enable the volume of reserve credit to be adjusted according to the judgment of the reserve administration. To arrive at this conclusion it is necessary to show why dealings in bankers acceptances cannot be relied upon for this purpose. This matter is discussed in the following section.

As open market procedure has been developed, the initiative and intentions of the reserve banks have been reflected largely by their purchases and sales of government securities. The policy of the reserve banks has been to take at their buying rates all prime eligible bills offered. The buying rates of the reserve banks have usually been below their discount rates. Exception to this statement might be made for a part of 1928 and early part of 1929, a time when there is good evidence to believe discount rates were abnormally low with reference to other rates. Aside from a few such

Why the
Bankers Bill
Has Been
Removed
from the
Rediscount
Field

periods, acceptances have been removed from the field of rediscounts to the field of open market operations.

The purpose of this removal of the bankers acceptance from rediscounting has been two-fold. In the first place, reserve banks have sought to discourage the acquirement of acceptances direct from accepting member banks. It is desired that these be marketed first to dealers and banks which have developed special facilities for handling them. Unless such dealers were made the usual first-discounters, the market would be solely that provided by the reserve banks. The reserve banks have foreseen the ideal, however, of utilizing the acceptance not solely as a means whereby member banks may acquire credit from the reserve institutions, but of mobilizing surplus banking resources in the credit field outside the reserve banks. With success accomplished in this policy, the reserve banks' resources would be husbanded more largely for emergencies. Furthermore, in the investment of their surplus funds, banks would not be so dependent upon the securities market. They would be investing in the commercial rather than in the securities field and thereby accomplish one of the purposes of the Reserve Act.

To encourage the organization of the market in this developmental stage, it seemed necessary that the reserve banks stand behind the dealers. Reserve bank "buying" rates have accordingly been usually fixed at a point which would be extensively utilized only when dealers find the private markets for bills clogged. Whether or not this removal of the acceptance from the rediscount field is economically desirable, it has been in general accord with the usage of foreign countries from which the bank acceptance was transplanted. In so far, also, as we interpret the creation of "bankers' " banks to have intended reform of commercial paper methods in the interests of mobilizing surplus funds more effectively, this procedure has been in line with the intentions of the framers of the Reserve Act.

The other purpose of transferring "bill" dealing almost entirely to the open market field presumably has had to do with rates. Bank acceptances should normally command among the lowest rates in the market, and they are an object of foreign as well as of domestic buying. If handled by the method of rediscounting, their rates would have to be woven into the general schedule, wherein their rates would not be expected to vary greatly from those attaching to other kinds of paper. They might, if thus treated, exert an influence in the direction of keeping other discount rates too low. To encourage the use of dollar drafts in foreign trade, it is also important to keep acceptance buying rates in New York as low as those prevailing in foreign money centers. The removal of acceptance dealings from rediscounting was the only way to meet foreign competition in the acceptance field without producing a similar and probably undesirable lower-

ing of rediscount rates. By transferring acceptance dealings to the open market means have furthermore been found of varying reserve rates according to the standing of those responsible for payment and the maturities of the bills. It has been previously remarked that this variation in rates has long been employed in foreign countries. Outside the acceptance field, however, this protective feature of central banking would be almost impossible to develop in the activities of the reserve banks.

Changing buying rates on acceptances might have been employed as one of the means whereby reserve banks seek to secure the proper adjustment of the aggregate volume of reserve credit. Such a procedure, however, would have operated against the development of a bill market. Too high buying rates would tend to discourage the original creation of acceptances. Too low rates on acceptances would cause an unduly large proportion of bills to drift into the reserve banks. Banks' surplus funds then would tend to go almost exclusively into the call loan market or into the acquirement of short-term Treasury certificates. Accordingly, acceptance buying rates have been adjusted with primary reference to the special requirements of the bill market, and control of the volume of reserve credit has had to be attempted in largest part outside the acceptance field.

An exception to the above statement is supplied by reserve policy in 1929. Prior to August 9 of that year the discount rate of the Federal Reserve Bank of New York remained at 5 per cent while buying rates, even on short time prime bills, stood at $5\frac{1}{4}$ per cent. Apparently, during the preceding period the reserve administration held two opinions: first, that the absorption of funds in security operations had reached so acute a stage that bill market requirements should, if necessary, be sacrificed to the broader purpose; and, second, that the advance of the discount rate should be reserved for a more appropriate occasion. On August 9, however, at the same time in which the discount rate in New York was increased to a full 6 per cent, rates on short-term bills were reduced to $5\frac{1}{8}$ per cent. This action was unique in that previously in reserve history all weapons had been utilized more or less uniformly in order to achieve a similar effect. It is not believed, however, that such diverse manipulations will become a part of permanent reserve policy.

Except in recent months, therefore, open market dealings in acceptances by the reserve banks have resembled rediscount operations more than open market dealings in government securities. In bill purchases the reserve banks have assumed at least as passive a rôle as in the granting of rediscount accommodations.

Acceptance
Dealings as
a Means of
Meeting Mass
Credit Problems

VI. The Open Market Committee as a Means of Coordinating the Reserve Banks' Dealings in Government Securities

In the Committee Report there was no discussion of the circumstances leading up to the organization of the Open Market Committee.

It is therefore only in purchases and sales of government securities that the reserve banks are normally in a position to exercise their own initiative to any considerable extent in altering the outstanding volume of reserve bank credit. In view of the fact that dealings in governments supply the reserve banks with important powers to influence the total mass of credit, it would be expected that some machinery would be organized whereby these operations could be conducted with attention to the requirements of the Reserve System as a whole. Permitting each reserve bank to exercise its own discretion regarding its purchases and sales of governments would be unlikely to result in the desired additions or withdrawals from the aggregate mass of credit. The interests both of the Treasury and of the reserve banks required, furthermore, that the purchases and sales of government securities be properly timed. The reserve banks, when purchasing, are confronted with the problem of selecting a favorable time to buy, and in its borrowing operations the Treasury would encounter difficulty if the market for governments had been unduly "bulled" by the previous and indiscriminate purchases of separately acting reserve banks.

To avoid such difficulties, which were experienced in earlier years, an open market committee was organized. Its members came to be composed of the governors of the Chicago, Cleveland, Boston, New York, and Philadelphia reserve banks with the governor of the New York bank as chairman. In recent years this committee has worked under the general supervision of the Federal Reserve Board. The general procedure of this committee has been, first, to consider the needed volume of government securities. Allotments are then made to the various reserve banks in accordance with their desires for varying amounts of this class of assets. Such a procedure permits both the exercise of some initiative by each reserve bank and the adjustment of the System's open market dealings according to the broader credit needs of the country. While the different reserve banks purchase some government securities locally, the majority of these purchases are made in their largest market, New York City. By allocating purchases among the different reserve banks, New York, and, to a lesser extent, sev-

eral other reserve banks assume a rôle of buying and selling agencies for the other reserve institutions.

It is, of course, impossible to make a definite prediction applicable to all situations regarding the relative future influence on this committee of the reserve banks, as represented by the governors, and that of the Federal Reserve Board. Undoubtedly there will be shifts of influence from time to time. It is within the realm of possibilities that this committee will become a mere agency for developing a larger degree of centralization in the control of the system than is desirable. All that can be said at the present time is that in the few years following 1920 the unharmonized open market activities of the individual reserve banks seemed to necessitate some agency of coordination.

VII. The Effectiveness of Open Market Operations as a Means of Increasing the Outstanding Volume of Reserve Credit

In the Committee Report it is assumed, but not argued, that the outstanding volume of reserve credit can be increased by means of open market purchases. This question is discussed to some extent in the following section.

Until the latter part of 1927, at least, the open market powers of the reserve banks have more often been employed to encourage than to discourage the use of reserve credit. It thus becomes necessary to determine how effective open market purchases of bills and securities have been in keeping outstanding more reserve credit than otherwise would have been possible. Has experience indicated whether the principal effect of open market purchases is to supplement, or to compete with, rediscount demand? To answer this question it will be helpful to sketch briefly certain developments of two periods of reserve operation in which open market paper comprised the largest portion of reserve banks' earning assets.

In 1915 and 1916, largely as a result of huge gold imports and the previous reduction of reserve requirements, the money market was very easy. There was then very little demand for discounts with reserve banks. Accordingly, to help meet dividend requirements the reserve banks became extensive purchasers of municipal warrants. These purchases did not compete very much with rediscounts, for the volume of rediscounting was then relatively slight. The competition that did occur was between reserve banks and member banks. On this occasion many complaints were heard to the effect that the reserve banks were making it more difficult for the member banks to find profitable employment for their surplus funds.

Early Uses
of Open
Market
Powers

**Open Market
Activities
in Recent
Years**

Again in the fall of 1920 huge gold shipments began to flow toward this country. The gold situation from 1922 to the close of 1926 is indicated by the figures of the following table:

In millions of dollars

Month	1922		1923		1924		1925		1926	
	Net out-flow	Net in-flow	Net out-flow	Net in-flow	Net out-flow	Net in-flow	Net out-flow	Net in-flow	Net out-flow	Net in-flow
January.....	25.7	.....	24.3	.....	44.8	68.4	.....	.....	16.3	.....
February.....	27.0	.....	6.9	.....	34.6	46.9	.....	.....	21.6	.....
March.....	32.5	.....	5.5	.....	33.5	17.7	.....	.....	39.2	.....
April.....	10.6	.....	8.5	.....	44.0	12.7	.....	4.7	.....	.....
May.....	5.5	.....	45.3	.....	40.4	1.9	.....	6.4	.....	.....
June.....	11.3	.....	18.8	.....	24.9	2.2	.....	.....	15.5	.....
July.....	42.3	.....	27.4	.....	18.5	.....	5.7	.....	14.7	.....
August.....	18.1	.....	30.6	.....	15.7	.....	2.7	17.7	.....	.....
September.....	23.0	.....	26.9	.....	2.0	2.6	.....	7.0	.....	.....
October.....	3.2	.....	28.4	.....	15.5	.....	22.7	.....	7.7	.....
November.....	14.8	.....	39.0	.....	13.1	13.9	.....	.....	9.0	.....
December.....	23.7	.....	31.9	.....	29.4	.....	1.2	.....	9.8	.....
Total for year.....	238.2	.....	294.0	.....	258.0	134.3	.....	.....	97.7	.....

**The Gold
Movements
from 1922
to 1926**

With one exception, every month from January, 1922, to January, 1925, witnessed a net inflow, and during these months the total excess of imports of gold over exports was 790 millions. Throughout this period the gold inflow resulted in the constant discharge of indebtedness to reserve banks, with the result that anxieties were felt regarding the future ability of the reserve banks to exercise any large measure of influence upon the credit situation. The gold inflow was further creating doubt regarding the reserve banks' ability to earn sufficiently to meet dividend requirements.

With discounts falling off even during the revival of business activity in 1922, it would be expected that greater attention than ever before in the history of the Reserve System would be devoted to open market purchases. At the close of May, 1922, holdings of government securities exceeded total bills on hand, and this proved to be true also of five later months of that year. In 1923 a heavier discount demand apparently set in, and with bill purchases mounting to large figures, purchases of United States securities were reduced. In 1924, however, the great reduction in discounts was accompanied by the acquirement of an increasing volume of purchased paper; hence by June 30, 1924, holdings of United States Government securities again exceeded the volume of discounted bills. On that date gov-

ernments represented over 53 per cent of the reserve banks' total earning assets. Nineteen twenty-four was the great open market year. During 1925 the discount demand increased somewhat, with the result that only at the close of January did the volume of United States securities exceed the total of discounted bills.

These figures show a tendency for a reciprocal relationship between discounted and purchased paper to manifest itself. During recent years it has usually occurred that when discounts fell off purchase operations increased; whereas on the other hand, rising discount demand has tended to be offset by reduced holdings of government securities. Without discussing which is cause and which is effect, their inverse relationship is demonstrable. At all events, changes in the holdings of the reserve banks during 1923 were more striking in the composite items than in the total of earning assets. During 1922 and 1923 total earning assets moved in a steady course, these latter figures being held around the figure of 1,200 million. During 1924, however, discounts apparently fell off too rapidly to be thus countered, with the result that total earning assets declined by several hundred millions. This is brought out by the figures of the following table.

HOLDINGS OF BILLS AND SECURITIES

In thousands of dollars

Date	Dis- counted bills	Bills bought in open market	Total of bills on hand	United States securities	Total (†) bills and securities	Percentage of U. S. securities to total bills and securities
1922						
January 31.....	838,885	74,935	913,820	293,085	1,207,111	24.2
February 28.....	712,577	93,458	806,035	407,889	1,214,166	33.5
March 31.....	680,467	105,270	785,737	455,506	1,241,345	36.6
April 29.....	510,104	90,677	600,781	587,080	1,187,861	49.4
May 31.....	471,490	118,182	589,672	603,419	1,193,091	50.5
June 30.....	461,418	161,112	622,530	555,465	1,177,995	47.1
July 31.....	406,178	140,111	546,289	536,669	1,082,961	49.5
August 31.....	397,448	180,176	577,624	507,131	1,084,776	46.7
September 30.....	463,696	244,375	708,071	482,676	1,190,762	40.5
October 31.....	576,435	258,165	834,600	362,639	1,197,263	30.2
November 29.....	650,096	259,226	909,322	304,461	1,213,807	23.4
December 30.....	617,780	272,122	889,902	436,155	1,326,096	32.8
1923						
January 31.....	597,251	188,566	785,817	353,735	1,139,552	30.9
February 28.....	595,760	207,678	803,438	363,074	1,166,512	31.1
March 31.....	698,914	263,358	962,272	250,360	1,212,673	20.6

HOLDINGS OF BILLS AND SECURITIES—Continued

In thousands of dollars

Date	Dis-counted bills	Bills bought in open market	Total of bills on hand	United States securities	Total (1) bills and securities	Percentage of U. S. securities to total bills and securities
1923						
April 30.....	727,993	271,573	996,566	185,305	1,181,871	15.6
May 31.....	770,734	258,680	1,029,414	191,964	1,221,433	15.6
June 30.....	836,949	205,600	1,042,549	101,503	1,144,117	8.8
July 31.....	825,936	183,096	1,009,032	98,083	1,107,125	8.8
August 31.....	864,562	171,607	1,036,169	101,995	1,138,184	8.8
September 30.....	883,553	173,258	1,056,811	96,285	1,153,413	8.3
October 31.....	883,800	204,698	1,088,498	91,837	1,180,652	7.7
November 30.....	803,354	300,207	1,103,561	104,169	1,207,884	8.6
December 31.....	723,068	354,637	1,077,705	133,566	1,211,322	10.9
1924						
January 31.....	532,260	286,041	818,301	126,371	944,682	13.3
February 29.....	528,963	267,880	796,843	165,463	962,406	17.1
March 31.....	517,885	228,247	746,132	262,867	1,009,050	25.9
April 30.....	447,185	124,485	571,670	301,660	873,381	34.4
May 31.....	441,366	79,549	520,915	352,857	874,323	40.2
June 30.....	333,954	36,524	370,478	431,085	802,864	53.6
July 31.....	293,047	23,469	316,516	522,897	840,663	62.1
August 31.....	274,668	58,103	332,771	542,211	876,732	61.8
September 30.....	276,199	131,821	408,020	576,108	985,878	58.4
October 31.....	264,141	200,114	464,255	584,205	1,052,017	55.5
November 30.....	242,024	313,572	555,596	583,738	1,141,884	51.1
December 31.....	314,128	387,100	701,228	540,160	1,249,438	43.2
1925						
January 31.....	311,885	313,006	624,891	390,953	1,028,903	37.9
February 28.....	415,884	315,300	731,184	379,226	1,124,362	33.7
March 31.....	397,810	312,947	710,757	360,144	1,083,303	33.2
April 30.....	429,440	261,623	691,063	348,318	1,051,281	33.1
May 31.....	451,273	287,960	739,233	348,115	1,100,098	31.6
June 30.....	480,468	253,507	733,975	353,273	1,099,998	32.1
July 31.....	506,319	207,299	713,618	328,612	1,054,580	31.1
August 31.....	577,201	212,040	789,241	330,246	1,129,307	28.1
September 30.....	633,188	268,310	901,498	342,906	1,257,024	27.2
October 31.....	616,182	346,894	963,076	326,892	1,296,428	25.1
November 30.....	679,400	358,635	1,038,035	341,818	1,391,150	24.5
December 31.....	635,193	374,356	1,009,549	374,568	1,395,122	26.8

¹ Includes municipal warrants, Federal intermediate credit debentures and foreign loans of gold.

Without any experience to serve as a guide it would be presumed that increased purchases of government securities would cut into discounts. On the other hand, an increase in discounting, other things equal, would be expected to result from reduced purchases. But such predictions could not have been made in 1921 with great confidence, and accordingly it

seems that a good deal of the open market policy of the reserve banks in these years is explained on the basis of attempts to ascertain the nature of this relationship. In this respect the years of 1922, 1923, and 1924 were "formative." Even experience, however, could not answer the question with precision because two periods are never the same. All we can ascertain in the examination of the figures is the high degree of reciprocity of the two major types of reserve bank activities.

But despite the expectation that open market purchases would cut into discounts, there are a number of respects in which discounts may not decline proportionately. In the first place, the banks supplied with funds may not be the same as those which are discounting. These institutions, finding themselves supplied with enlarged reserve credit, may begin to finance undertakings which otherwise would not be accommodated. The banks receiving the funds may place money on call, or invest in high-grade bonds or real estate mortgages. With plenty of paper available for discount, these banks may not thus hesitate to tie up their funds in longer time credits. In the second place, the prejudice against acquiring rediscounts or payables does not operate against absorbing funds which reserve banks pour into the market by their purchases. It would seem that under practically all conditions it is possible for the reserve banks to keep outstanding more credit by means of their purchase operations. But the extent to which an enlargement in the total volume of reserve credit should result from increased purchases of governments must depend upon such factors as the amount of rediscount indebtedness of the banks supplied with funds by the reserve banks' purchases and the intensity of the money market's demand for funds.

The conclusion here reached may perhaps be expressed more effectively in another way. Member banks, when not extensively in debt to reserve banks, will not hesitate to employ funds obtained through the open market purchases of reserve banks which they would not try to obtain in similar volume by rediscount applications. This is perhaps merely another way of asserting that many considerations not related to profits serve to retard rediscounting. Whether or not there will be attractive opportunities to employ such funds, however, will depend upon those demands of business which offer the most promise.

It would thus appear that under certain conditions open market dealings may enable reserve banks to keep outstanding a larger volume of reserve credit than would come into existence by rediscounting alone.

VIII. The Conduct of Open Market Operations

In the following section there is a more extended discussion than was possible in the Committee Report of the principles to be observed in determining not only the volume, but also the timing, of the reserve banks' open market operations.

When the reserve banks are ushered into a period when more conservatism in the use of credit seems required, their general task is relatively simple. Purchases of securities should then be reduced and sales increased. By these means funds are withdrawn from the market to restore which more extensive rediscounting will be required. If at the same time rediscount rates have been increased, member banks are able to obtain reserve credit only on terms of greater cost, and contraction is thereby encouraged. Employed in this manner, the function of open market activities is to render rate increases and other credit checks more effective. In sales of securities, reserve banks may operate quickly and aggressively. They are not obliged to wait until a large enough amount of rediscounted paper has matured so that the higher rates will apply to a sufficient volume of applications. In open market dealings the reserve banks are able to affect the money market immediately.

To be able to operate in this manner, however, securities must have been acquired previously. The proper time to acquire these securities, it is often contended, is on occasions of strain in the money market. In this way, so it is argued, central banks let out slack when money strain is developing just as in opposite fashion they take in slack when the money market is easy. It is therefore supposed, particularly by those conversant with European procedure, that purchases should only be consummated when rediscount demand increases, but when discount demand subsides sales should be effected.

The employment of open market operations merely to avoid strain in the money market would apparently make the reserve banks' open market problem very simple. In view of the generally easing tendencies of money rates during the period, say from 1924 to 1928, the acceptance of such a policy would not seem to have justified any very extensive open market operations in those years by the reserve banks. Inasmuch, however, as in those years the volume of open market holdings often exceeded the total of discounted bills, it would appear, either that the reserve banks have frequently regarded other factors than the avoidance of money market strain as necessitating open market operations, or that an increase in money rates

may on occasion have been regarded as exercising a salutary influence upon the business or credit situation.

There seems no doubt but that other factors have frequently assumed great importance in the eyes of the reserve administration, among the most important of which have been the gold flows. In particular, the persistency and strength of the gold inflow over a large part of the period since 1922 created many complications. Normally, as is argued in the Auxiliary Statement on Guides to Reserve Credit Policy, extensive gold inflows tend speedily to develop forces which operate finally to check further gold imports. The easy money rates generated in the financial centers make the country receiving the gold a less profitable place to hold deposits of foreign banks, and a long-continued inflow of gold would be expected to lift its price level to such a point as to encourage imports and retard exports. The resulting unfavorable balance of trade would tend to check further gold imports.

The latest heavy gold flow to this country, however, began at a time in which member banks were more extensively indebted to the reserve banks than accorded with then current ideas of conservative uses of reserve credit. With the salutary development of an unwillingness on the part of most member banks to keep indebted to the reserve banks to any such extent as at the close of 1920, gold imports at first were employed to pay off the rediscount indebtedness of member banks to the reserve banks. During that period of heavy gold inflow the net gold imports roughly paralleled the reduction in the total volume of reserve credit. Under such conditions gold imports did not operate so effectively to check the continuance of a further gold inflow. The gold imports went largely into the coffers of the reserve banks and did not have the usual opportunity to work themselves into the country's credit structure.

After 1924, however, gold imports have not been utilized to any such extent as formerly in reducing member bank indebtedness to federal reserve banks. They operated to make up higher required reserves at the federal reserve banks and to support greater currency requirements on the part of the public. The normal results occurred, viz., some expansion of member bank credit, a check to the volume of gold coming into the country, and a decrease in the excess of merchandise exports over imports.

In a number of ways the continued net gold imports preceding the Autumn of 1927 were regarded by some as detrimental to our own interests, as well as to those of some foreign countries. In the first place, they led to an accumulation in the reserve banks of an amount of gold reserves which caused some observers to fear that inflation might result. In the second place, the loss of this gold abroad was felt to have increased

the difficulty of completing the effective restoration of the gold standard in various foreign countries. Chaotic conditions in international finance could not fail to exert an unwholesome influence upon our own foreign trade. In the third place, the loss of gold in foreign countries tended to reduce to lower levels the gold value of their goods and services. This is said to have contributed sympathetically to downward drifts of prices in this country in such a way as to threaten the margin of industrial profits and to have retarded the recovery of agriculture in so far as it applied to prices of farm products. To the extent that these expressions of opinion were regarded by the federal reserve authorities as of merit, they may have been contributing factors which, despite the easing tendency of money rates, led the reserve banks to continue open market purchases. It had no doubt been agreed that to assist European countries in their currency reforms it was desirable to relieve them of all unnecessary credit pressure emanating from this side.

In the recent history of the Reserve System there seems to have been only one occasion upon which extensive open market purchases were made for the particular purpose of offsetting the influence of gold exports upon the money market. This period followed the autumn of 1927. Whether the results of this effort were beneficial can not be determined here. But in the future, with the possibility of a vigorous, world-wide gold scramble in prospect, it would appear that endeavors to thus counteract the effects of gold exports should be made only with the greatest caution. By refusing to permit gold exports to occasion the customary strain in our central money markets, no scope is given for the development of the automatic corrective forces which have been traditionally relied upon to reverse the direction of the gold movement.

At any rate, this policy of offsetting the influence of gold exports was reversed in the spring of 1928. The reserve banks then evidently came to the conclusion that use of reserve funds in speculative activities had developed to such an extent as to require correction.

There have also been several occasions in the last few years in which, despite the abundance of credit, the ability of industry to avoid depression has been seriously threatened. The first nine months of 1924 gave rise to many such forebodings, particularly since the spring reaction of 1923 had demonstrated that activity might be considerably reduced even in a situation devoid of money strain. The reserve banks, in 1924, no doubt also regarded it as desirable to employ open market purchases in order to afford industry whatever encouragement still cheaper money rates would give. In this situation it did not appear that inflationary use would be made of the reserve credit thus supplied.

At this time, also, some reserve officials apparently were of the opinion that the situation was a favorable one in which to build up a portfolio of securities which could be employed quickly and effectively to increase the need of rediscounting on some later occasion.

It thus appears that more important factors than the mere maintenance of money market stability may determine the use which the reserve banks will make of their open market powers. With the improvement of our understanding of the wide variety of factors which become the occasion of business reactions, it is to be expected that the reserve banks will operate in response to many more influences than those expressed in the money market situation.

The objections which must be encountered in enlarging open market purchases during periods devoid of credit pressure are principally two. In the first place, some of the banks which will be supplied with funds by these purchase operations, not finding an immediate enlargement in the commercial demand for bank credit, will expand their offerings to brokers and enlarge their investments in securities and real estate. Critics of the System's policies will then be supplied with plausible arguments to contend that the reserve banks are supporting speculative rather than commercial demands. In the second place, the accentuation of falling money rates will give rise to many complaints that the policy of the reserve banks has increased the difficulty of securing as ample returns upon bank loans and investments as otherwise would be possible.

So far as the use of reserve credit by indirect devices to support an enlarged volume of investment or speculation is concerned, it should be kept in mind that the relationship of stock market reactions to business depression may not be nearly so intimate as in earlier days. Prior to the Federal Reserve Act, stock market declines frequently resulted from the withdrawal by interior banks of funds employed in security operations in the financial centers. Inasmuch as there were no reserve banks from which to secure further funds by the rediscounting process, these withdrawals of funds frequently meant general credit strain. Business reaction then would be likely to coincide with stock market collapse, and since the stock market reaction usually occurred first and reached the most sensational magnitudes, it was inevitable that the depression in industry would be ascribed to the shake-up in the stock market.

When member banks are not rediscounting very extensively, stock market declines do not necessarily register credit strain, and the relationship of security reactions to industrial reactions is less intimate. In the last few years several violent stock market reactions have apparently passed almost unnoticed by the business community. They appear to represent primarily a readjustment of values, the quotations representing

which had advanced too rapidly. It is not likely that many situations will arise—even though that of 1928-1929 may be an exception—in which events in the stock market will be regarded as of so great importance as such factors in the situation as gold flows, commodity speculation, and the course of commodity prices.

The increasing security operations of commercial banks during recent years have occasioned some alarm because of the belief that the liquidity of commercial banks' assets has been impaired. It is not altogether clear, however, that liquidity has actually been impaired to the extent that nominally appears. In a period of high stock prices, it may be good financial policy for business corporations to reduce their bank borrowings and obtain more capital by selling shares to the public. To the extent that bank funds are thus preserved for security investment, the investment holdings of banks, or the loans of banks to private investors, must be regarded merely as a substitute for short-time advances of bank credit direct to business corporations. In Auxiliary Statement Number VIII, it is argued that the principal danger of this procedure lies not so much in the fact that credit, thus obtained by business corporations, cannot shortly be recalled—for ordinarily the supply of commercial credit should undergo little abrupt variation—as in the fact that an abundant supply of long term credit exaggerates the expansion tendencies of business during periods of growing optimism. But whatever be the merits of this contention, it is evident that many factors aside from the activities of the reserve banks have been responsible for the increased security operations of commercial banks in recent years.

Open market purchases of government securities are frequently subjected to the special objection that they bring the reserve banks into competition with member banks and tend to ease money rates to such an extent as to impair the profits of member banks. But these open market operations of the reserve banks do not exert normally more than a limited influence upon the course of the money market. Lending rates, and in turn the profits realized by banks, are primarily determined by far more fundamental considerations, such as the volume of current savings seeking investment and the demand coming from the business community for credit in all its forms. A downward tendency of rates can be accelerated through these open market operations, but persistently low rates during a period of active business can only be explained as an outcome of a continuing abundance of capital seeking investment relative to available opportunities for its employment. Certainly this is true when reserve bank operations are confined within the narrow limits which have characterized the past few years.

In the determination of open market policies the reserve banks should not allow considerations of their own earnings or those of member banks to exert a controlling influence. The possible unfavorable effect upon the earnings of commercial banks from these operations is clearly a factor, but not of major importance. So far as the policies of the reserve banks, as well as more fundamental influences, may tend to bring about a general lowering of the cost of credit to the business community, it should be recognized that both member and non-member banks are warranted in adjusting themselves to the situation by the adoption of a more elastic policy with regard to the rates of interest they pay to depositors.

IX. The Adequacy of the Reserve Banks' Present Open Market Powers

In the Committee Report there was no discussion as to whether the reserve banks should be empowered to deal in more types of paper than those now authorized. This question is raised in the following section.

In considering the adequacy of the reserve banks' present open market powers our attention is first directed to government securities. Including, as they do, United States certificates of indebtedness, government securities in the past have been sufficient in volume and have been the subject of such constant dealings in the market that reserve banks do not seem to have been greatly handicapped by being compelled to deal in them so largely. In a number of respects, however, the future may gradually alter the present situation radically. The war debt is being reduced at the rate of several hundreds of millions per year, and as the country grows in financial resources a larger and larger proportion of United States securities will tend to find more or less permanent resting places in the strong boxes of investors. A Treasury policy of funding shortly maturing war issues into lower-rate long-term bonds, as well as lessened dependence upon temporary certificates, will serve further to increase the difficulties of the reserve banks.

The Future
Availability
of Government
Securities

In the hope of rendering the reserve banks' future market operations more effective, we are thus led to consider

- (a) Whether dealings in municipal warrants cannot be enlarged as the government's issues become less attractive and available;
- (b) Whether reserve banks should not be encouraged to increase their holdings of foreign bills;

Municipal
Warrants

(c) Whether vigorous measures should not be initiated to increase the vogue of the trade acceptance;

(d) Whether changes in the law should not be made to permit reserve banks to purchase in the open market such paper of the promissory note variety as is now eligible for rediscount.

Prior to this country's entrance into the Great War, municipal warrants constituted a considerable percentage of the reserve banks' open market holdings. With the issuance of billions of war bonds by the Federal Government, holdings of warrants have shrunk to insignificant amounts. It thus might appear that in case the governments should become less attractive as open market holdings, their place could gradually be occupied by warrants.

The hesitancy to invest in warrants in recent years has probably been due to much besides the availability of war bonds. Dangers foreseen are due to:

(a) The fact that the Act makes eligible for purchase the issues of many "quasi-municipalities," including "irrigation, drainage, and reclamation districts." Many such districts have no revenue record to assure their permanency. They are created out of "developmental hopes."

(b) If the reserve banks should become extensive purchasers of such obligations, heavy political pressure might be exerted to compel the reserve banks to support their marketing.

(c) In any event the analysis of the issue of any municipality requires special investigation. Since they do not arise in the financing of commercial operations, great care must be exercised to determine whether they are properly fortified by prospective revenues.

Anticipating these difficulties, the Board's Regulation E surrounds their purchase with many protective features. They must not be acquired by reserve banks to an amount exceeding 25 per cent of the total issue outstanding. For any one reserve bank, they must not exceed 10 per cent of member bank deposits with reserve banks. There are further percentage limitations upon the amount which may be acquired of the issue of a single municipality. These obligations do not include such "as are payable from local benefit and special assessment taxes when the municipality at large is not directly or ultimately liable." The Board also has suggested in an informal ruling that it would be well to ascertain what the sinking fund requirements are with reference to bonded obligations and whether or not these requirements are being complied with.

These provisions, as well as the discretion of the reserve bank officials, may be sufficient to guard against the danger of acquiring unsafe municipals. But it should be remembered that there may develop a

general demand for their relaxation. Demagogic politics can find no more fruitful field to till than to insist that the reserve banks pay as much heed to irrigation and development of new territory as by their bill purchases they now devote to established commerce. In contemplation of this danger the reserve banks have apparently anticipated future demands that these protective provisions be abandoned and in late years have hesitated to supply precedent for the future. Supplying municipal credit and developmental capital is furthermore not usually regarded as one of the prime responsibilities of a central banking system. It is also questionable whether the reserve banks should handle in the open market any paper not possessed of a broad active market.

One of the recognized practices among central banks has been to deal in foreign bills. These dealings may be the means of maintaining the satisfactory working of foreign trade, of moderating fluctuations in exchange rates, and of lessening foreign gold movements. A striking precedent for the investment of some reserve funds in foreign bills is found in the holding of several hundred millions of dollars of American bills by foreign central banks.

When the desideratum is to enlarge earnings and not to exert influence upon the domestic money market, there is much to be said for encouraging purchases of foreign bills. These bills may be selected from classes which member banks customarily do not deal in. They may, therefore, be acquired by reserve banks without cutting into member bank business. From a political standpoint, however, foreign operations must be most carefully devised and explained. The Reserve System renders itself highly vulnerable to attack when it appears to plant its banking resources abroad.

The future popularity of the trade acceptance is doubtful. In 1913 the framers of the Act were evidently more confident than later events warranted that trade acceptances could be so popularized as finally to gain supremacy over the book account. In those days it was good form to refer to the "antiquated open account." It was generally expected that borrowings on the showing of current assets, giving rise to the promissory note, would gradually lose place to the trade acceptance. Though of late years the trade acceptance has been little used in British domestic trade, its proponents presented it as embodying European custom and argued that if only we would set up the same machinery for supporting the trade acceptance market as central banks provide for the bill of exchange, European commercial paper methods could be transplanted. Accordingly, the trade acceptance and not the promissory note was by law made eligible for open market purchase.

Dealings
in Foreign
Bills

The Future
of the Trade
Acceptance in
Open Market
Operations

Apparently, however, something more than provision for central banking support was necessary to accomplish the wholesale introduction of the trade acceptance to American soil. Its popularization is much easier in the poorer than in the better accounts, and in 1920 and 1921, particularly, many occasions arose in which it was used as a last resource of commercial borrowing by concerns approaching insolvency. There is no doubt that it was then often employed as a means of obtaining credit for concerns whose credit rating was not sufficient to enable their unsupported obligations to gain approval. Inherently subject to abuse, it seems that in the immediate future it will not be able to supplant the promissory note as our favorite form of bank paper.

With the growth of installment paper, much of which is of the trade acceptance type, proposals are being made that some of the conservative character be made eligible for rediscount at reserve banks. Something can be said, in principle, in favor of the suggestion, but all proposals to broaden eligibility requirements must be weighed in relation to any need for more classes of eligible paper and to the effects their adoption would have upon conservative banking practices. In this connection, too, it should be remembered that the Federal Reserve Board possesses considerable power, within the limitations of the Act, to admit to the rediscount privilege desirable kinds of paper. When and if the requirements of industry and commerce make necessary an added volume of installment paper or it is deemed desirable in the smooth working of the System, eligibility regulations can probably be sufficiently broadened without an amendment to the Federal Reserve Act.

Increased open market development of the customary types of trade acceptance does not offer much promise. Accordingly, we are forced to consider the advisability of conferring open market eligibility upon commercial paper of the form of the promissory note.

Open market eligibility for the promissory note is now advocated by some in order to increase the efficacy of rate changes in credit control. Proponents of this view emphasize the great differences in interest rates existing in different parts of the country and assert that a rate which would be effective in one locality would be too low in others. Since the rural sections possess the highest rates, and since in these districts the promissory note is virtually the sole credit instrument, it is argued that only by being permitted to deal in promissory notes on their own initiative can reserve banks break these excessive local rates to such an extent as to enable reserve banks to establish an effective system of discount rate control. In this contention the thought seems to be that the reserve banks should be empowered to "spray reserve credit over the country like water from a hose."

Open Market
Eligibility
for the
Promissory
Note

Promissory notes acquired by reserve banks would be obtained either from member banks or from commercial paper houses. If acquired from member banks, the present situation would seem not to be altered radically. Reserve banks now may discount this kind of paper and they may do so at the initiative and upon the requests of the member banks. Their addition under these circumstances to the open market investments of the reserve banks would add little to reserve banks' present powers. Few have advocated that the reserve banks deal directly with private firms and individuals. Such a transformation in the Reserve System's methods would destroy many of the safeguards of the present system protecting the reserve banks' resources against unjustifiable inroads by the public. The borrower should first pass the examination of the local bank before his paper is offered to the reserve banks. Since, furthermore, by depositing their legal reserves with reserve banks and by subscribing to reserve banks' capital stock, member banks supply the resources of the reserve banks, it would be inequitable to subject member banks to the direct competition of reserve banks. Accordingly, if the promissory note is to be rendered eligible under Section 14, the practice would have value only if purchases were made from other institutions than the discounting bank, that is, from the commercial paper houses and dealers.

In many ways, however, direct dealings by the reserve banks with commercial paper houses would arouse violent objection from member banks. Commercial paper dealers do not contribute to the resources of the reserve banks, and their operations are such as to make them something more than mere agents of banks. They frequently take business away from member banks and distribute their paper to non-members. If it be contended that bankers acceptances can now be obtained by the reserve banks from specialized dealers, it should be replied that there is a great deal of difference between the acquirement from dealers of paper of limited origin and restricted uses and the acquirement of the most common and generally employed credit instrument of the country. It is further to be observed that in acquiring paper only of the strong firms, unendorsed by banks, the influence of the reserve banks in lessening the spread of various money rates would be negligible.

It would thus appear that there is no urgent need for changes in the classes of paper eligible for open market dealings. At the present time reserve banks are able to obtain an ample supply of paper possessed of a broad active market. It may be that government securities will gradually diminish in value for this purpose. To the extent that this handicaps the reserve banks offset may be found in foreign bills and in the increased development of the bank acceptance.

As to the future popularity of the bankers acceptance, we are inclined to take a hopeful view. It should be remembered that many banks are unfamiliar with this instrument of finance and undoubtedly many situations currently arise in which, if banks were more accustomed to calculating all the profits, freedom from risk, and other advantages of the acceptance device, the acceptance would be employed in many applications now handled solely by the method of direct loans. In New York state, legislation has been enacted admitting the bankers acceptance to the portfolios of savings banks, insurance companies and trust companies in their investment of trust funds. It is becoming generally a more common object of investment by insurance companies. Its principal competitor at the present time, the United States Treasury certificate, should dwindle in volume as the government debt diminishes and is refunded into longer time issues. Its attractiveness to foreign central banks has been increased by exemption of earnings thereon, as respects these institutions, from the federal income tax. In the course of time it may further be possible to remove with safety some of the restrictions which now surround its use in domestic transactions.

In late years the bank acceptance as an investment item has suffered from the competition of the call money market. In this period of active speculation in securities, call rates in the financial centers have generally been unusually high. It cannot be predicted, however, that this situation will continue indefinitely, and it seems probable therefore that future developments must operate in the direction of increasing, rather than decreasing, the attractiveness, to member banks and others, of investment in bankers acceptances.

Before advocating any enlargement in the permissible types of open market paper it would therefore seem desirable to wait until the future status of the bankers acceptance is more certain. If a secure and established place for the bankers acceptance can be developed, the reserve banks will not be obliged to depend so largely upon government securities in their open market operations.



III

Guides to Reserve Credit Policy

I. The Necessity that the Influence of the Reserve Banks be Continuously Manifested

In the Committee Report the necessity that the reserve banks should exert a continuous influence upon the credit situation is implied but not specifically asserted. In the following section this view is developed.

In endeavoring to popularize the Reserve System with member banks, it has been customary to emphasize the services reserve banks might render, particularly in emergency situations. In presenting the values of the System to the country's banks, it is not exactly correct to refer to the reserve banks as constant regulators of the nation's currency and credit. Yet experience in other countries has shown that central banks must be in continuous contact with the money market in order to keep in a position to serve the country's credit-granting institutions effectively.

**Reserve Banks
Should Operate
on Other Than
Emergency
Occasions**

A system that operates in the field of central banking must be possessed of power to mitigate the rigors of financial strain. It must be capable of greatly expanding its advances in times of serious emergency. It is, nevertheless, recognized that in periods of normal business activity it must not make maximum use of its powers of credit and currency issuance; it must preserve its resources for periods of strain.

The necessity on the part of such systems of maintaining surplus liquid reserves for occasions of strain is everywhere admitted. So strong indeed is the need of preparation for emergency periods that it is frequently assumed that contemplation of the needs of banks in periods of storm supplies the sole reason for the adoption by such systems of policies of restraint in normal times. Such thought, however, overlooks some of the most vital aspects of the problem. Reserve bank policies must contemplate not only the reserve position of banks but the soundness of the course of business whose requirements banks finance. In other words, the credit offerings of banks must be analyzed from the point of view of their effect upon business in normal periods quite as much as from the standpoint of the banks' condition when "tight" money develops. Unless viewed in this perspective, such a system cannot accomplish all it should toward the elimination of the loftier peaks of the so-called business cycle. It might otherwise serve to prevent crises from degenerating into financial panics.

But it could not impose weighty obstacles to the periodic sequence of booms and depressions.

The nature of the business and financial situation goes far to determine the needed degree of contact of reserve banks with the credit market. During periods of short-time treasury financing, of tax payments, of seasonal strain, and of gold exports, the reserve banks' facilities will usually be more extensively drawn upon by member banks. But some demands of member banks arise on account of less intensive requirements. These may be denoted the "marginal" demands and over them the reserve banks are usually in a position to exercise a discouraging or encouraging influence. The reserve banks furthermore exercise some initiative in their open market transactions. The reserve banks are not to be regarded solely as passive institutions, the volume of whose credit is buffeted hither and thither by member banks' demands. They cannot avoid exercising their discretion to some extent over the general mass of credit. Since this is so, the first problem is to determine the financial or economic considerations which should serve as a guide to their activities.

II. The Reserve Ratio as a Guide to Reserve Credit Policy

In Section VI of the Committee Report—Guides to Reserve Credit Policy—the utilization of the reserve ratios of the reserve banks as a means of determining the desirable volume of reserve credit was objected to as a policy which could have been employed in most years since 1922, principally on account of the enormous surplus reserves now held by the reserve banks. It was indicated, however, that reserve ratios possess the virtue of simplicity and definiteness, and occasions may arise in which a larger measure of dependence may be placed in them. The possibility that movements of reserve ratios may be relied upon in more normal future situations is discussed in the following section. There is also a statement of the more or less speculative factors which will affect the country's future gold resources and consequently the reserve ratios of the reserve banks.

In devising rules for the proper regulation of the volume of reserve credit, our attention is first directed to the reserve ratios of the reserve banks. The reserve institutions are banks, and like other banks they must maintain a sufficiency of liquid assets. The most liquid of all assets is cash, and accordingly it is from items of cash, or their equivalent, that law-makers will find their definitions of reserve. Like any other banks, the reserve banks should be so administered as to provide them at all times with a sufficient amount of reserve money. Since, moreover, other banks will depend upon the reserve banks to increase their reserves in time of need, it is necessary that reserve banks maintain more ample reserves than

any other financial institutions. Reserve banks hold the ultimate reserves of the entire banking community.

Prudence, however, must accomplish something more than merely to usher the reserve banks into a period of emergency with large reserve holdings. There must be contemplation of the course of business as well. No banking system can acquire sufficient cash reserves to withstand the shock of numerous business failures. It thus becomes necessary to inquire whether observance of reserve ratios will go far to engender a credit policy conducive to stable and uninterrupted business development.

Under certain conditions the rough dependence upon changes in reserve ratios might produce fairly salutary results. We may assume that the most important trading nations of the world are resolved to maintain the gold standard, and, further, that the dominant banking directorates in the various countries are composed of men of different habits of thought who are required to deal with banking and credit machinery according to the peculiar needs of their respective countries. Under such conditions it is unlikely that credit expansion in the various countries will proceed at the same rate. It normally would be expected that business optimism and, consequently, the expanded utilization of bank credit will develop first and most rapidly in some one country.

If the banks in that country offer credits on liberal terms, exchange rates will, in the absence of adventitious circumstances, tend to move against it, especially if there is pronounced credit expansion. That nation becomes a good place in which to sell, with the resulting probability that its imports will sharply advance. Of course, during the trade boom it will also have more to export. But in the beginning of its trade boom some time normally will elapse before its imported raw materials are worked up into exportable finished goods, and, moreover, any lack of as easy credits in other countries will retard their buying power. Bank expansion in the country experiencing the boom may keep down interest rates to such a low point that a demand for foreign credits will be created. In the speculative articles of commerce, furthermore, such as some stocks and bonds of international demand, easy money will tend to exert a favorable influence on values and cause this country to become a larger market place for the world's sales. If these tendencies are not shortly reversed, the country of rapid expansion may even find its general level of commodity prices rising to such an extent as further to encourage the development of an unfavorable trade balance.

With a large number of countries on an effective gold standard, and with the reserves of each country but moderately in excess of normal requirements, the penalty of excessively rapid credit expansion in any one country is likely to be a dangerous loss of gold. Since this expansion nor-

mally would be accompanied by a decline in reserve ratios, some protection against inflation may be found merely in the observance of the central bank's reserve position.

There are other virtues of utilizing reserve ratios as a guide to credit policy. In Professor Sprague's words:

"It is definite and obvious. Public opinion may be expected to support the always unwelcome policy of credit restraint when that policy is enforced by a depleted reserve. It is unhappily very doubtful whether the public would have been reconciled to the advance in rates made last spring (1920) if the reserve banks had had, let us say, a reserve ratio of 55 per cent, and yet, all other things being the same, an advance in rates would have been no less desirable."

Further: "There is no substitute for the reserve ratio which possesses its peculiar virtues of simplicity and definiteness."

There is then no certainty that, if success is permanently realized by European countries in their efforts to restore the gold standard, dependence upon the movements of the reserve ratio will be relegated to the limbo of discarded practices. Nevertheless, its serviceability must depend upon the smooth working of economic forces to such an extent as sometimes to war with actualities. Can we safely assume, for instance, that credit expansion will always be conducted at first most intensively in some one country? If not, inflation might develop all over the world without being retarded anywhere by gold transfers. Without loss of gold, reserve ratios fall slowly, as a consequence solely of the creation of more credit. Also, do advancing prices always lead to an adverse trade balance? If the foreign demand for the particular articles of price increase is sufficiently strong and inelastic, more, rather than less, money might for a while flow from abroad into the country where prices are rising the most rapidly. Merely maintaining sufficient gold reserves may not under all circumstances lead to the supplying of such a volume of credit as is required to finance a stable business development. Reserve ratios must always be observed; their analysis may become the most important single consideration, but no great confidence can be reposed in their use until the effects of the country's credit policy are studied in the light of other economic considerations.

In recent years of deranged foreign currencies and huge gold imports to this country, it was generally asserted that no great confidence could be reposed in the reserve ratios of reserve banks as a guide to credit policy. It was claimed that the granting of the maximum supply of credits

that our huge reserves would permit would result not so much in loss of gold as in improving the dollar value of foreign currencies. Under these conditions price inflation here could proceed far before the movement would be checked by loss of gold to other countries. Once all our gold was required to support domestic bank credits, the demand for which may have been stimulated by higher prices, America's gold would be unavailable for other countries except, possibly, on terms of violent domestic credit contraction. Consequently, it has been argued that the reserve administration has been obliged to husband our gold for later foreign need. It could not all be tied up in domestic operations.

There need be no complete discussion here of the strict merits of this contention. Whether, in recent years, the reserve banks have possessed power to force maximum credits upon the business community, and thus utilize our surplus reserve to the utmost, has occasioned extensive controversy. The possession of any such power by the reserve banks in recent years is extremely doubtful. Cheap money does not force business men to borrow, and of late many other checks upon credit utilization have been operating. Since the reaction of 1920, business men have hesitated to accumulate excessive inventories; it has often appeared that increased credits would be shortly accompanied by enlarged production, with the results of speeding up the flow of goods to consumers; plant capacities in many lines have been excessive; and the general policy of business has been to induce large volume, if necessary, by the method of price reductions. Certainly, many factors, outside the domain of reserve credit, must be considered in any explanation of the recent course of commodity prices.

But whatever may have been the facts about the business situation since 1922, occasions may arise when business will become more eager for bank credit, and consequently demands may be placed upon the reserve banks for the full utilization of their reserves. With this prospect possible, it is advisable to consider gold flows, the world's demand for our gold, the probable future production of gold, and the sufficiency of the surplus gold reserves of the reserve banks.

As regards the future gold production of the world, predictions must depend upon a number of imponderables. What improvements in the technique of gold mining will be introduced, what will be the course of prices and consequently of mining costs, what chance discoveries will be made of new rich deposits? Some would even consider the unlikely possibility of the invention of a commercially profitable method of producing gold synthetically. Nevertheless, there seems less chance of such factors disturbing estimates in the immediate future than in most years of the

**Future
Gold
Production**

recent past. From a geological standpoint gold deposits have been more completely charted, and the scientific basis of improving the art of production is now more thoroughly understood. More than normal confidence can now be reposed in an examination of tendencies in the principal gold producing regions of the world.

The following figures, compiled by Mr. Joseph Kitchin, and recently published in *THE ECONOMIST*, show the trend of gold production in the entire world since 1913:

(In millions of pounds sterling at 84 shillings 11½ pence per fine ounce.)

1913 -----	94.7	1921 -----	68.0
1914 -----	90.4	1922 -----	65.5
1915 -----	96.4	1923 -----	75.5
1916 -----	93.5	1924 -----	81.0
1917 -----	86.3	1925 -----	81.0
1918 -----	79.0	1926 -----	82.0
1919 -----	75.0	1927 -----	82.5
1920 -----	69.0	1928 -----	*83.5

* (Estimated.)

Since 1924, the gold output of the world has been practically stationary.

In predicting the future sufficiency of this production to support the credit structures of the world's banking systems, without compelling violent price decline, it has been customary for statisticians to set against it the annual increase in the world's gold requirements due solely to the regular increase in the physical volume of trade. In this way it may be possible to forecast the date when the annual output will no longer be sufficient to meet the world's demands.

Our interest, however, need not extend to any exact timing of a period of gold shortage. It is sufficient for our purposes to point out two facts. First, the annual output in recent years has been practically stationary. In the second place, assuming any reasonable rate, as 2, 3 or 4 per cent, as indicative (under present currency arrangements) of the needed annual increase, the time must arrive, sooner or later, when a shortage will manifest itself. A uniform rate of increase in requirements necessitates a constant increase in absolute production, and this increase, as estimated by past trends, does not seem to be in prospect.

We are thus driven to inquire whether further economies in the use of gold by the gold standard nations are to be anticipated.

As a hand-to-hand currency, gold coin is steadily dwindling in importance, and is coming to be concentrated more and more largely in the vaults of central institutions. Such concentration cannot continue indefi-

Possible
Future
Economies
in the Use of
Gold

nitely, however, because sooner or later gold would disappear from general circulation. There is, moreover, no evidence that this process of drawing in gold can in the immediate future develop at a faster rate than has occurred in recent years.

Can the gold-exchange standard be extended in such a way as to enable various countries to maintain the gold standard on a smaller gold base? In the past, optimistic predictions have been made on this point. But recent experience with gold exchange standards seems to indicate that popular opinion in most countries will not support a system which bases its gold standard upon reserves kept abroad. Sooner or later there will be an irresistible demand that a substantial portion of the foreign fund be returned in the form of gold coin or bullion. Inasmuch as the foreign fund was likely to have been invested, and therefore consisted largely of bank credit, supported only by a fractional reserve, such a return has the effect of accentuating tight money conditions in the center from which the funds were withdrawn.

Currency developments over the world, including the establishment or further development of central banking systems partly for the purpose of guaranteeing the maintenance of the gold standard, are therefore operating at the present time to increase, instead of to decrease, the demands upon the monetary metal. In view then of all these factors, viz., stationary gold production, the development of increased monetary demands for gold, and growing trade, it becomes necessary to inquire whether at the present time surplus gold reserves exist anywhere in the world which may be reapportioned for the benefit of all.

The one banking system in the entire world which is popularly supposed to be possessed of gold reserves much in excess of immediate requirements is the Federal Reserve System. But its surplus holdings are highly problematical. If related to the total deposits of our whole banking system they make up a percentage little, if any, higher than that of the Bank of England. Their nominal existence is due almost entirely to the reform of our banking system, which has brought millions of scattered reserves into federal reserve coffers. Inasmuch as gold, and other lawful money, supports a larger total of federal reserve credits, which credits in turn enable member banks to build upon them a far greater volume of deposit liabilities, each dollar required to be kept by legal minima in the federal reserve vaults bears a heavier burden than in former years.

Only in one sense can the existence of huge surplus gold reserves in the Federal Reserve System be established. They do exceed minimum requirements under present law. But as yet there has been insufficient

experience to determine whether the reserve minima established by the Reserve Act will be entirely sufficient from the standpoint of safeguarding this country's gold standard against the gold competition of other countries. All of the evidence now available, therefore, points to the conclusion that there must be a return in this country to pre-war "gold-mindedness" and that the guardianship of the nation's gold must be the first concern of our central banking system. Gold reserves must be kept within the limits of safety. Inside of these limits, however, reserve policy may be based upon considerations related largely and primarily, but not exclusively, to purely domestic conditions.

III. The Observance of Index Numbers of Commodity Prices

In Section VI of the Committee Report—Reserve Credit Policy—the conclusion was reached that, in situations wherein price movements are not of an extreme character, reserve policy must usually be based upon other considerations. It was stated not only that it would frequently be impossible for the reserve banks to secure stability of the price level in these intermediate situations, but also that such an attempt might lead to damaging results. The following section provides an illustration of the manner in which these undesirable results might develop from an attempt to base the reserve banks' credit policies upon such considerations as have taken form in the Strong bill.

Price Stability and the Strong Bill

In formulating a policy for supplying domestic industry with the proper volume of credit, a proposed piece of legislation directs our attention first to the matter of stabilizing the commodity price level. The Strong bill—the exact wording of which has been changed from time to time—proposes that the Federal Reserve Board should be instructed by statute to employ all its powers to maintain stability of the commodity price level. In behalf of the bill many arguments are adduced. It is assumed that stability of the price level is the principal desideratum. It is asserted that in our circulating media bank credit is the most important factor, that consequently stability must be sought in the realm of the control of credit. It is further argued that the principal causes of unstable business are fluctuations in the buying power of the dollar, and that if the purchasing power of the dollar could be stabilized, the cyclical swings of business could be eliminated. It is finally insisted that no matter what the cause of price changes, they could be resisted by altering the supply of currency and credit.

Opponents of the Strong bill, when interviewed at the first hearings,

deprecated the proposal principally on the grounds of administrative difficulties and popular misinterpretations. They held that the reserve banks do not possess such power over credit and prices as is popularly supposed. The reserve banks do not control international political conditions, strikes, weather, floods, conflagrations, tariffs and the thousand and one factors, many of them related to the state of mind of the business man, which enter into the determination of individual prices. Consequently, those opposed to the bill held that it would be unfortunate if the reserve banks should be instructed to attempt to accomplish what is practically impossible. The public would seize upon any considerable price disturbance to accuse the reserve banks of dereliction of duty. Attention was also called to the limitations of index numbers as faithful indicators of the commodity price situation. But most of the hostile witnesses refrained from asserting that attempts to stabilize prices might sometimes bring results injurious to trade and production.

With objections confined largely to administrative difficulties and popular misinterpretations, the zeal of the advocates of the Strong bill seems to have increased. They assert that under no conditions would it work injury to have the bill on the statute books. Admitting that under some conditions absolute price stability might be impossible, adherents of the bill hold that all they desire is that the reserve banks should exercise such powers as they actually do possess in the direction of stabilization. If the contention is accepted that maintenance of price stability is the principal function of a good money system, they cannot see why the federal reserve administration should not be instructed to endeavor to achieve such stability.

Situations may arise in which it would be generally agreed that price movements would constitute a clear indicator of discount policy. In a period of active business and rapidly rising prices, it must be presumed, in the absence of other evidence to the contrary, that business is being too liberally supplied with credit. It would then appear that further expansion of credit would do little to increase the physical productivity of industry, and would tend so to stimulate the competition of rival entrepreneurs for the constantly scarcer supplies of labor and materials, that prices rather than outputs would respond. If, at the same time, inventories and stocks of goods are accumulating, it would seem desirable on the part of the reserve banks to restrict their credit offerings, in the attempt to preserve the market for future production. On the other hand, marked declines in commodity prices, accompanied by fair business and rising tendency of money rates would seem to indicate credit pressure. In such a situation

an easier money policy would usually seem to be required in the attempt to improve the price structure and to resist the encroachment of costs upon profits.

But extensive alterations of the price structure of this character are not as frequent as their sensational and far-reaching results, when they do occur, would lead us to believe. Difficulties of mitigating violent price inflation do not usually result from a failure of diagnosis. During the war and post-war periods, any slowness of the reserve banks to act may be attributed more to Treasury policy than to a failure to understand the situation. In most occasions, price movements are less extreme and general. They frequently are obscure and are accompanied by contradictory tendencies elsewhere.

It is to be regretted that some of the able opponents of the bill did not make more vigorous efforts to show that in those intermediate situations a control of reserve credit, according to the disclosures of price indices, would often be injurious. Prices may change as a result of two general sets of causes; those affecting the supply of money, and those working directly upon the supply of goods. When prices increase or decrease as the result of credit inflation or deflation, the remedy may be found in monetary manipulations. When price changes occur otherwise, monetary corrections may be harmful. Their utilization then would be similar to the old medical theory that blood-letting should be employed in all physical ills. Industrial disturbances are quite as complicated as bodily infirmities. Neither can be cured save by the utilization of the proper remedy, and the proper remedy can be determined only by accurate diagnosis. Let us illustrate this.

Suppose that on the technical side of manufacturing many cost economies are introduced. Suppose that means are devised to employ labor with greater efficiency, that progress is made in the invention of new devices and the refinement of existing machinery, that new methods of production and market-distribution are developed. These forces all work for lower costs. Assume at the same time an attitude on the part of business management to reap the gains of large scale production. The economic stage is now set for lower prices. Noting the tendency of prices to fall, the reserve banks, according to the formula, would be obliged to endeavor to expand the volume of bank credit.

From a banking standpoint such a forced credit expansion, if possible, might be most unsound at such a time. Commerce and industry might not require more credit, because means have been devised of making the dollar accomplish larger results. Accordingly, surplus funds in banks would then be obliged to seek employment in the field of security and real estate

investment. As a consequence, we may expect higher prices and greater activity to ensue in these lines.

Now let us assume that the lowering tendency of prices is checked. The immediate occasion might be found in foreign conditions. At home, numerous strikes might develop, weather conditions might become unfavorable and, on the part of business management, it might be decided that the large volume policy had been overdone. After a time we will suppose prices to begin to rise. According to the formula, federal reserve policy then must be directed in behalf of restricted credits. Such a contraction would have to be enforced at a time when, to maintain enterprise solvent, abundant "carrying" credits would be required. To obtain funds for these purposes, advances to the securities market would be withdrawn with the more or less inevitable consequence of shaking values.

Such stock market declines need not necessarily develop general and extensive repercussions in trade and industry. In the situation just presented, general business is simply preferring to obtain banking capital by utilizing surplus funds that have been employed in the stock market instead of by increasing its demands upon the reserve banks. So long as power to rediscount has not been impaired, the transfer of funds from security markets does not indicate the utilization of the last reserves of business.

Nevertheless, the securities market is not isolated from other business, and there are many avenues by which stock market depression may be communicated to general economic life. Business sentiment is highly influenced by the markets' judgment of the worth of the rights to participate in business profits. Declining security values lessen business' borrowing ability, and the ease of floating new issues bears directly upon the ability of business to expand its capital and plant projects. While the present relation of speculation to business is perhaps not quite so intimate as is often asserted, bank credit policy should endeavor to avoid developing unnecessary reactions in the stock exchange centers. Insofar as the endeavor to adapt the volume of bank credit to the state of commodity prices might encourage such reactions in the securities markets, the policy might easily lead more to unstable than to stable business.

In reply to the argument thus advanced, the exponents of commodity price stability might endeavor to distinguish between cyclical and secular price changes. They might assert that the causes of price changes in the illustration were slow-moving forces, that at any one time their counteraction would not require very vigorous corrective measures and that, accordingly, the illustration is extreme and overdrawn. But which price changes are cyclical manifestations and which are long-time and secular? Moderate

price changes lead in the long run to extensive alterations in the dollar's purchasing power and, unless the secular changes be resisted, the policy of price stabilization might fail. In the inability to check such price changes, the reserve banks would then be in the uncomfortable position, with respect to public approval, which such officials as the late Governor Strong anticipated. In general, the efficacy of the reserve banks' powers is too uncertain to warrant Congress to instruct their employment in the interests of price stability.

It has not been proved that the way to stabilize industry is to attempt to stabilize prices. On the other hand, it seems to us that perhaps more stable prices would result from a credit policy which first of all should seek to stabilize production and the course of business. In this we may be justified, perhaps, in drawing an analogy between social and personal welfare. Philosophers usually teach that happiness is not a commodity which can be acquired by direct search. It must be a by-product of service and activity. In the same way, it is not clear that price stability should be the immediate goal of credit policy. Must it not be merely the result of a credit policy which, on other counts, meets adequately the legitimate requirements of business and industry?

IV. The Utilization of Index Numbers of Trade and Production

In Section VI of the Committee Report—Reserve Credit Policy—there is contained a brief statement of factors other than price movements which must be considered in reserve bank policies. Because of the rather general belief that price indices afford the only basis of determining whether the supply of credit and currency is of proper volume, it is necessary to consider other methods of ascertaining the legitimate credit requirements of business and industry. In the following sections two general approaches to this problem are considered. The first of these is illustrated by statistical analysis of the volume of trade. The second is the utilization of index numbers of production according to methods outlined in the Annual Report of the Federal Reserve Board for 1923.

But, how, otherwise than by observing the relationship of dollars to goods, can we determine the legitimate requirements of trade? Herein, two suggestions deserve attention. The first of these is a product of the statistician of the New York reserve bank. The second is the utilization

on index numbers of production, according to methods explained in the Annual Report of the Federal Reserve Board for 1923.

We may consider them in the order named. The problem is this—how much credit does business really require? In deriving an answer to this question, there was analyzed the past course of a number of statistical series bearing upon the physical activity of trade. What was most surprising in the results was the fact that the long-time growth element has been unexpectedly steady and uniform. When the various series were combined and deflated on account of price changes, they showed an unexpected persistency in the annual rate of growth. Contrary to much popular opinion, cyclical changes in the physical volume of trade have not been as sensational as indicated by earlier work in the field of economic statistics. Booms have added less to total outputs than has been customarily believed. Depressions have not carried the trade of the country as a whole to nearly as low depths as commonly has been asserted.

Shorter time, cyclical fluctuations have nevertheless been important and it is not argued that they should be ignored. But there has been evidence to indicate that, if only the supply of credit made available for industry had been steadier, with the principal variations made at a rate approximating the long-term increase in the growth of trade, these cyclical fluctuations would have been even less pronounced. Accordingly, correct credit policy would contemplate increasing the supply of credit year by year according to the annual secular growth in industry's demands, making suitable allowance for the monthly seasonal variations. If less credit than this is supplied, industry might be handicapped and forced into the retarded situation of adjusting prices downward. If more credit than this is dispensed, prices rather than the volume of trade may be lifted to a higher level.

As an ultimate aim, therefore, the reserve banks conceivably could say to the business public: Last year you made use of so many millions of dollars of credit. As a year to year proposition, your requirements grow about so many per cent a year. In administering the Reserve System we will endeavor accordingly to render available an amount of credit which will exceed last year's offerings by a similar percentage.

Objections to such deductions may be classified under two heads. The first are the administrative objections of the practical banker. How can such a long-term, theoretical scheme be put into effective operation? Every day, says perhaps an officer of the New York reserve bank, a number of unusual demands are placed upon us. In a certain section of the state it appears to the banks that farmers should be given credits to assist

them to hold a crop which had been overproduced; at the close of the year banks try to show a statement devoid of payables and thereby withdraw funds from the street. To make up for this withdrawal we try to supply funds by purchasing governments. At other times foreign shipments of gold take place and we try to help out the banks which make these shipments. Then we are affected by income tax payments, by sales of Treasury securities, by return of funds to the interior. Every one of these demands, it is argued, must be observed, and in observing them where will we come out? How can we decide whether at the close of the year we have supplied the amount of credit required by the formula?

This matter of relating short-time and long-time demands is difficult and complicated. Nevertheless, their adjustment must be attempted. In encouraging or discouraging rediscount demand and in exercising their own initiative in open market dealings, the reserve banks should have some definite goal in mind. It is one thing to have an objective even though it cannot be precisely attained, and another thing to pursue a purely passive policy.

Economists, on the other hand, have questioned whether total trade, including all types of operations in the field of ultimate production, primary and secondary distribution, and financing activities, supplies the proper criterion of the needed volume of credit. Trade may show an increase not merely because more goods have come into existence, but because the average good, as in periods of active commodity speculation, takes part in more exchanges. Social welfare, however, can be increased not by more turnovers but only by more goods. Statistics bearing upon the total activities of business are therefore attacked as a means of determining the legitimate credit requirements of business.

Without discussing here the validity of this last objection, it does suggest that the ideal might be sought by studying production rather than total volume of trade figures. The New York statistician was skeptical of the wisdom of relying upon the productive accomplishments of basic industries because fluctuations in outputs in these industries seem to have been greater than in the whole field of trade and may therefore give an exaggerated picture of the degree of business change. Nevertheless, production figures have entered largely into the analytical work of the Federal Reserve Board.

In the Board's pronouncement of 1923, the basic approach is that credit is being legitimately used so long as the volume of production responds accordingly. If the use of more dollars leads to the creation of more goods that move into consumption, liberal credits are justified. If,

Utilization of
Index Numbers
of Production

on the other hand, enhanced credits do not lead production to respond proportionately, business is not entitled to continued easy credits. By the acceptance of this idea, credit policy would undertake to check a boom before industry has reached a point of maximum physical productivity. Further credits at such a point lead merely to competitive bidding between employers for labor, materials, and the instruments of production with the consequences of higher prices. But credit checks before this situation is reached would be invoked not in the interests of stabilizing elusive prices, but for the purpose of stabilizing productive activity. Price stability is thus to be sought in the proper way, by developing it as a necessary consequence of healthy industry.

To supply materials for the analysis of production changes, the Reserve Board has undertaken the construction of various index numbers of production, mining and manufacture. From the standpoints of statistical accuracy and of their representative character they appear to be superior to any index numbers of prices yet developed.

As would be expected, the following out of this idea to its logical conclusion inevitably necessitated the utilization of other statistical series. In the first place, it soon became clear that much more was involved in the problem than the superficial correlation of the volume of bank credit with the volume of production. What, for instance, is being done with the new production? Is it going regularly into the regular consumption channels, into consumers' hands, or merely into stocks and inventories? If the latter, overproduction is developing, with the ultimate prospect of choked outlets to consumers. It would be desirable to discourage production before these excessive stocks develop. Accordingly, the Board shortly saw the necessity of preparing statistical material bearing upon the state of inventories as well as upon consumers' demands. In another direction, refinement of the idea of correlating production and credit also had to be developed. In a period of trade revival, for instance, how rapid a recovery should be encouraged? Past experience supplies many illustrations of the fact that a rapid recovery from depression cannot be so long sustained as a more gradual improvement. The forces of reaction seem to develop somewhat apace to the speed of revival. This may be due in large part to the fact that speculators and traders begin to base hopes upon the continuation of the rate of improvement, and when this acceleration diminishes they are left holding the bag. As a possible example of this idea we may point to the spring reaction of 1923. It simply was not possible for recovery to continue long at so rapid a rate as had been experienced since the close of 1921.

The upshot, then, of this observation is that occasions may arise when the mere correlation of the volume of credit with the volume of production does not necessarily predict long-continued prosperity. Conclusions thus drawn must be checked by observing whether in other respects progress appears to be sound. Nevertheless there is ground for the opinion that the study of indices of production and trade supplies the starting point in the determination of the legitimacy of industry's demand for credit.

V. The Reserve Banks' Discount Rates in Relation to Money Market Rates

In Section V of the Committee Report—Lending Operations—it was pointed out that on account of the disinclination of most member banks to be in debt constantly and extensively to the reserve banks, sound policy does not require that the reserve banks' discount rates be constantly above current lending rates. Other considerations than this attitude of banks, however, are involved in the proposal that reserve banks' rates always should be above market rates. Some of these considerations are discussed in the following section.

Dependence upon the factors discussed in the preceding section, including the disclosures of trade and production statistics, is a policy difficult to popularize. Principles thus laid down are subject to numerous exceptions, and the public cannot be expected to grasp much about the abstract art of smoothing the fluctuations of the business cycle. Generally speaking, the utilization of some simple, automatically operating principle is to be preferred to conclusions reached by intricate economic analysis. The preference for rules of thumb of central banking guidance, moreover, is supported by much of the experience of foreign countries. In most other countries it has not been possible to develop the art of interpreting economic statistics in any such degree as in the United States. One reason is that the statistical materials have not been so adequate. Another is that few foreign central banks have ever possessed anything like the surplus reserves of the reserve banks. Foreign policy accordingly has been obliged to give heed primarily to the protection of gold reserves.

In foreign practice, it is commonly asserted that the most universally observed procedure has simply been to keep the discount rate of the central banks above the market rate. The theory herein has been that under ordinary situations no great use should be made of the central

**Keeping the
Central Banks'
Rate Above the
Market Rate**

banks' resources. These should be husbanded for emergency purposes. In other words, private banks normally should supply the largest part of industry's credit needs, and the central bank's rate should be kept sufficiently high to discourage discounting with the central bank for everyday profit-making purposes.

Some capable observers have argued that this has been the first principle of the Bank of England's rediscount banking. "Since 1871," to quote Anderson and Hepburn, "there has not been a single year when the official bank rate of the Bank of England was not above the market rate on yearly averages. In general the (other) central banks of Europe have held almost without exception to the policy of keeping their official rediscount rates above the market rates." Since central banking in the United States is so new, it might seem that there would be a strong presumption in favor of obeying the principle which crystallized in the many, long years of foreign experimentation.

Before accepting this interpretation of foreign central bank policy, it should be recalled that foreign banks have commonly found it necessary, in order to render their own rates effective, to force up market rates by such measures as sales of securities. In thus "preparing" the money market, their policies involve much more than merely following the market. Abroad, central bank directorates have in the past paid especial heed to the reserves of the central bank and to the movement of foreign exchange rates. But, waiving this complication, it is necessary to define the meaning of the market rate in this country in order to determine the feasibility of utilizing the market rate as a guide in the fixation of the discount rates of the reserve banks.

It is well known that rates here differ widely not only as regards the form of the paper dealt in but also as regards the section of the country. In New York there are different rates for bank acceptances, for call loans, for prime commercial paper, and for ordinary line of credit loans. Between various sections far wider differences exist. The following table covering rates on prime commercial loans displays variations from $4\frac{1}{2}$ to 8 per cent. These differences, moreover, undoubtedly would have been far greater if it had been possible to include cities located outside federal reserve bank or branch cities. Elsewhere in the more remote districts, rates of 10 and 12 per cent on borrowings are not unknown.

With such wide variations covering the vast area of continental United States we should be careful to avoid accepting without careful examination the apparent procedure of foreign central banks. Particularly true is this when we recall that there are certain respects in which the guidance of the Bank of England, whose methods of operation supply

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Policy of
the Federal
Reserve

*Rates on Prime Commercial Loans in December, 1926, in Cities¹ where
Federal Reserve Banks and Branches are Located*

4½%	4¾%	5% 5¼%	5½%	5¾%	6%	7%	8%
New York Philadelphia Jacksonville Detroit Minneapolis Dallas	Boston New York Philadelphia Chicago St. Louis Omaha	Chicago Buffalo Pittsburgh Baltimore Atlanta Birmingham Kansas City Oklahoma City Houston San Francisco	St. Louis Minneapolis Kansas City San Francisco Cincinnati Richmond New Orleans Little Rock Louisville	Baltimore	Buffalo Cleveland Cincinnati Pittsburgh Richmond Atlanta Birmingham Jacksonville Nashville New Orleans Detroit Little Rock Louisville Denver Oklahoma City Omaha Dallas Houston Los Angeles Portland Salt Lake City Spokane Seattle	Seattle	Helena El Paso

¹ Where rates vary within a margin, as say 5-6%, the city is listed under both minimum and maximum rates. Source: Federal Reserve Bulletin, January, 1927, pp. 72-73.

the closest precedents for our reserve banks, seems to have been aided by banking practices not permitted the federal reserve banks. The Bank of England grew up as a private institution and accordingly has developed gradually and has acquired certain more or less arbitrary powers of discretion which our lawmakers did not and could not bequeath the administrators of the reserve banks. For one matter, the Bank of England has always discounted certain paper at its official bank rate, and other paper of perhaps quite similar qualities at a different rate. The directorate of the Bank of England has been permitted to use discretion in determining at which rate paper would be accepted. In the United States no such discretion is exercised. Despite the fact that in earlier days an attempt was made to distinguish between war and non-war paper, between acceptances and non-trade paper, offerings now are either eligible or ineligible and, if eligible and acceptable, are discounted at similar rates. Rates here, furthermore, must be the same for one section of a district as for another section of the same district regardless of differences in local credit conditions.

As a second differentiation, the Bank of England now operates among a group of powerful branch banks. In this country, however, our independent banks, prior to the establishment of the Federal Reserve System, had developed a highly complicated system of correspondent banking. It has here always been a moot question whether the aims of our law-makers of 1913 were at all consistent with these correspondent customs, which tend to establish different relationships and different inter-bank customs than contemplated under the "regional" idea.

In the third place, borrowing customs in England do not thrust upon the central bank so many applications as here for the discount of perhaps unliquid paper. What is commonly offered abroad is the bill of exchange identified with a short-time trade transaction. These bills are similar to our trade and bankers acceptances. Ordinary borrowings there are commonly handled by the method of overdrafts which do not give rise to negotiable paper. In this country, on the other hand, promissory notes are given in place of overdrafts, and these may conform with the rules of eligibility. Our reserve banks continuously are offered for discount paper which, in England, would not arise at all, and as a matter of fact the discount rate here is maintained above the market "acceptance" rate. Since our acceptances correspond closely to the foreign bill of exchange our practice does not deviate so widely from foreign procedure as customarily is asserted.

These observations do not argue that there would be no possibility of adopting the policy of keeping the discount rate constantly above the market rate. But they do lead to the conclusion that the workability of such a policy should be justified under the peculiar conditions amid which the reserve banks operate.

The utilization of this policy here would necessitate the acceptance of one of two lines of procedure. In the first place, rates could be varied according to the form of the paper offered and the district in which it arose. In the second place, attempts could be made to find a rate which is really competitive and uniform throughout the country.

Some differentiation between rates on account of the character of paper offered was attempted in the early history of the Reserve System. This attempt, however, did not succeed and was abandoned in 1921. Experience showed that banks with a sufficiency of low rate paper offered this for discount rather than the paper whose acceptance created the need for federal reserve credit. The higher rates were paid only by banks whose portfolios did not contain any large amount of the low rate paper.

Furthermore, it probably would be impossible to maintain wide differentials between the different districts. In the first place, public opinion

would be hostile to such an attempt, and would insist that it represented sectional favoritism and discrimination. In the second place, a policy of widely varied rates inevitably would lead to greater reliance by interior country banks upon their correspondent institutions in the financial centers. The reserve banks are not the only agencies of this country from which member banks may borrow. Too high rates exacted by reserve banks would merely lead to increased dependence upon the correspondent institutions of the money centers, and thereby tend to lessen the attractiveness of membership in the Reserve System.

To attempt to pick out a single competitive rate in this country to represent the market rate was the procedure employed by Anderson and Hepburn. To quote from their publication:

“In the United States the market rate is best represented by a body of loans, the rates on which are rarely published. ‘Line of credit’ loans made to customers constitute the bulk of bank loans in the United States. Of these lines of credit loans many are made at widely varying rates. But there is a large block of these loans which may be taken as the best representative of market conditions, namely, loans made by banks in the great cities to those of their customers who have deposit accounts and lines of credit with several banks. The important businesses of the country usually have a number of bank accounts with borrowing privileges. They will frequently have accounts with New York, Boston, Chicago, Philadelphia, and other banks. They will borrow from several banks and in several cities. The rates on loans made to them thus involve competition among many banks and many cities. They are truly competitive rates. They respond quickly to changes in market conditions. They tend to be approximately the same in all the great cities of the country. Though the rates on these loans are not matters of published record, they are well known in the banking community, and they are, of course, well known to the authorities of the Federal Reserve System. They constitute the best index of changing market conditions.”

All of this might be granted without justifying in any degree reliance upon the simple policy of keeping rediscount rates above the market. It is one thing to find a rate whose changes portray shifting money market conditions. It is another thing to fix a reserve rate which can be depended upon to encourage the proper use of reserve credit. In another report attention has been called to the fact that something more than a favorable rate may be necessary to stimulate general rediscounting. Regardless of the profits to be derived, most banks do not like to show permanent indebtedness to the reserve banks. They borrow to overcome temporary and incidental deficiencies in reserves and, unless special needs arise, such as seasonal peak needs, local industrial disaster, or general credit strain,

they usually strive to get out of the reserve banks as soon as it is convenient to do so. In this disinclination to rediscount permanently, the banks have been encouraged by reserve authorities. Since discount rates have lost so much of their expected potency to determine the volume of member bank borrowing, it is more difficult to depend upon the adaptation of reserve rates to those of the credit market.

It also may be true that the money market, on occasions, does not fluctuate according to business' real needs. The only way of determining whether it does would be to study such factors as already have been referred to—including the course of production, of trade, of consumers' demands, of stocks on hand, and of long-time money rates.

VI. Conclusion

It thus appears undesirable to insist upon the utilization of any single guide to reserve policy. The determination of the credit needs of business is too complicated a problem to permit of solution by a simple formula. No two business situations are ever precisely alike. On some occasions, the clue to reserve policy might be found in the movement of reserve ratios. On other occasions, price changes might be the decisive consideration. Under still other circumstances, the principal perplexities might be found in facts of the money market. Foreign and domestic factors will be combined in continuously differing degrees of importance. It is beyond human wisdom to formulate in advance the relative attention which should be devoted to these varying considerations. But if such a generalization must be attempted, the formulation must be expressed in the general terms of utilizing reserve credit to mitigate extreme fluctuations in the productive accomplishments of industry. Business stability is a higher ideal than price stability and it has not been proved that the two are always identical. Neither does it appear likely that the highest degree of business stability will result from the observance of some simple "rule of thumb" such as varying reserve rates according to the movement of money market rates. In the formulation of general credit policy, the reserve banks must be free to adapt their activities to changing situations. They also must be permitted to profit by such improvements in our understanding of the causes of cyclical swings in business as future inquiry may make available. We should not endeavor to move too rapidly.



IV

The Structure and Control of the Reserve System

I. The Desirable Number of Regional Banks

In the Committee Report there is no discussion of the merits of the regional system. It is there assumed that no immediate efforts should be made either to alter the general character of the system of district banks or to change their present number. The reasons for this assumption are briefly stated in the following section.

Some students of reserve banking are still convinced that a more centralized system of bankers' banks should have been provided in 1913. Nevertheless, the proponents of a higher degree of centralization recognize the fact that any system of central banking, serving so vast an area as the United States, would be obliged to proceed to some extent in the direction of setting up local or district agencies. Under these conditions, continued controversy might ensue regarding the degree of power and authority which should be reposed in the managements of these district agencies. Since somewhat the same issues now arise regarding the relative powers of the Federal Reserve Board and the regional directorates, advocates of greater centralization may press demands without being obliged to insist upon the abolition of the present district system. In view, furthermore, of the undesirability of giving a sudden wrench to the machinery which has been slowly and laboriously devised, the continuation of the regional system has been fairly well removed from the field of controversy.

Many, however, are of the belief that there are now too many district banks. Those of this opinion argue that a regional bank whose resources must be principally employed in the open market is of doubtful serviceability. The demand for open market paper, whether it consists of bankers acceptances or government securities, is to be found mainly in the financial centers and to deal in these types of paper requires the operation only of reserve banks located in these centers. The serviceability of district reserve banks away from the financial centers consists principally in the ability of the district directorates to extend rediscount accommodations with a knowledge of local credit conditions superior to that which could be acquired by a more foreign agency.

In recent years the rediscount operations of several reserve banks of the South and Central West have been very slight as compared with

the volume of their open market dealings. Thus, in 1926, the average daily holdings of rediscounted bills of Dallas amounted to only 26 per cent of total holdings of bills and securities. For Minneapolis the percentage of discounted bills to total bills and securities was only 20 per cent and for Kansas City 25 per cent. These figures supply support for the contention that by the rearrangement of district lines or by the consolidation of existing banks the number of regional banks should be reduced.

The advantages of such a reduction in the number of district banks would consist almost entirely in the means it would afford of securing quicker and more effective cooperation between the different regional banks. As it is, the government of the Reserve System is somewhat cumbersome. Certain powers are divided between the Federal Reserve Board and the district banks, and various delays and lost motion must necessarily be encountered not only in the determination by district officials of desirable policies but also in securing their timely and effective execution.

Attempts, however, to eliminate any one of the present district banks would undoubtedly develop much rancor and discord. This loss of cordiality would probably outweigh any mechanical and operating efficiencies the reduction in the number of districts might afford. Further objections to the disestablishment of any reserve bank would arise on account of the increase in discount demand which the future may develop in the districts where rediscounting now is slight and also on account of the difficulties reserve directorates would encounter in passing upon rediscount applications originating in areas more remote geographically. It does not appear, at least for the immediate future, that proposals to reduce the number of district banks promise advantages sufficient to offset these objections.

While it has been ruled that the Board cannot abolish existing reserve cities, that body has power to transfer border areas from one district to another. In the application of this power a number of banks near district lines have been transferred to other districts. Under the present arrangements it is thus possible to effect certain changes necessitated by shifting economic conditions.

II. Branches of the Reserve Banks

In the Committee Report there was no discussion of the problems created by the organization of branches of the reserve banks under the authority of Section 3 of the Reserve Act. Some aspects of the branch situation are considered in the following section.

Closely allied to the question of regional banking is that of the branches which may be created to increase the local usefulness of their

**Need of
Branches**

parent reserve bank institutions. The general need of branches in certain cities is now no less clear than at the time of the writing of the Federal Reserve Act. In some districts existing transportation facilities and mail schedules are such as to make it difficult for certain of the member banks to depend solely upon the facilities of the present reserve banks. In times of temporary cash losses, ability to obtain currency quickly is a very important consideration, and in every-day operations member banks have a right to secure credit on their collection items or to rediscount when reserves are temporarily deficient without excessive delay. In the working out of the reserve collection system, it moreover became apparent that economies could often be effected by permitting reserve banks in some districts to deal directly with branches of other reserve banks, instead of with the parent institutions only. In the matter of accepting rediscount applications, many of the big western districts contain such highly diversified industries that advantage seems to be gained by setting up a directorate familiar with the industrial conditions of the territory served and presumably possessed of special ability to pass upon the quality of paper offered. Finally, organization of branches offers virtually the only feasible means of correcting mistakes that may have been made in the original districting of the country or of making adjustments for economic changes which have led to a different organization of industry and transportation than existed in 1913.

To illustrate this last contention, we may call attention to the New Orleans situation. It probably would be safe to say that when the organization committee undertook the districting of the country, it was generally expected that New Orleans would be made a reserve bank city. On account of their financing of the foreign cotton trade, banks in New Orleans were well known abroad. It, moreover, was by far the largest city in its near-by district. Yet, as the country was mapped out, it was farther removed from the geographic center of the southern districts than either Dallas or Atlanta. If, under these conditions, New Orleans could not have been made a branch city, that city's industries must have continued to smart under what they regarded as unfair treatment by the districting committee. Omaha, also, offers perhaps another case in point. When the organization committee was functioning, business interests in that city urged location outside of the Kansas City district. Holding memories of early rivalry with Kansas City, business men of Omaha looked with extreme disfavor upon an arrangement which would seem to subordinate their city. Omaha generally desired a location in the Chicago territory, and under the present map it will be noted that it is separated from Chicago territory only by the width of the Missouri River. It is no doubt

**Dangers of
Branch Bank
Extension**

true that to some extent Omaha has been placated by making it a branch city.

The principal dangers of branch development are two: In the first place, it effects some decentralization of control and responsibility, thus making it more difficult to control the credit policy of the district bank from the standpoint particularly of its inter-district effects. When authority to accept rediscount applications is diffused among several directorial bodies it is more difficult to carry through consistently any general policy. Branches increase the possibilities of intra-district friction and the likelihood that their directorates will work at cross purposes with the directorate of the main institution. The second difficulty relates to costs. The more branches there are established, the more precedent is afforded other cities to petition for a branch, and after the branch is established local pride can be expected to exert pressure to secure more imposing quarters.

**Safeguards
Against
Branch
Development**

In the control of the creation of branches, the Act provides that they cannot come into being except after securing the approval of the Reserve Board. Since the Board is removed to some extent from the clamor of local opinion, it is unlikely that such permission will be granted unless it can be established that the organization of the branch will improve the efficiency of reserve banking in the district. As regards the management of the branches, three of the seven directors are appointed by the Federal Reserve Board and may hold office only during the pleasure of the Federal Reserve Board. The recently enacted McFadden-Pepper legislation furthermore gives the Board specific authority to require the removal of branches after their establishment.

Too much confidence should not be reposed in the control of the Board if rapid branch extension were uniformly desired by the district directorates. It is believed, however, that reserve officials now support branch petitions with conservatism. District officials apparently do not view with equanimity the passing of any large part of the district's business from the field of their immediate and direct supervision in such a way as likely to produce troublesome problems of coordinating the operations of branches and the parent bank. Vesting control over branch bank extension in the Board accordingly may have its principal value in providing a means whereby rejections can be passed upon by officials somewhat removed from local pressure.

The reluctance of reserve officials to encourage premature branch development is further indicated by the past record. Half of the twelve reserve banks have only one branch each or less. Ten of the present number of twenty-five branches are tributaries of San Francisco and Atlanta. In each of these districts the area served is of wide expanse and

transportation is multi-centered. Furthermore, not all of the twenty-five branches have been granted complete reserve bank functions. In a few instances, the branches operate largely as clearing and collection centers; no member bank is required to deal with them, no distinct territory or capital is assigned to them, and rediscount applications are passed on to the head office for final decision.

III. The Necessity of Improving the Condition of Board Membership

In the Committee Report, the necessity of an able Federal Reserve Board was accepted without discussion and recommendations were made regarding methods of improving the Board's dignity and influence. The following section is devoted mainly to depicting the difficulties involved in making Board membership attractive and in asserting the conclusion that the strengthening of the Board is imperatively required.

Lawmakers have never been slow to assert the public responsibilities of our credit-granting institutions, and have not hesitated to impose upon individual banks a number of restrictions which in most other fields of business have been left to the discretion of management. In this country it has been customary to control the volume of banks' quick assets by prescribing their minimum reserve ratios; to fix the capital contributions of stockholders with reference to the population of the community served; to compel some diversification of resources by limiting the volume of dealings with a single party; to restrict banks' powers to incur indebtedness and to emit circulating promises to pay. Regulations of this character and the right of the government to prescribe them have long been taken for granted. Nevertheless, cumulative banking experience has made it more manifest that such legal restrictions imposed upon the activities of individual banks could never provide a completely satisfactory system of credit. In the matters of adapting the total advances of all our banks to the necessities of protecting the gold standard, of contributing to the effective mobilization of surplus funds, control over banks separately must be ineffective. A more concentrated method of regulating credit granting has been found to be necessary. Arrangements designed to secure safety for the individual bank must be supplemented by machinery to improve the functioning of the banking system as a whole.

Prior to 1913, other countries had found at least partial solution of this problem in the development of central banking institutions possessed

**Methods
of Credit
Regulation**

**Origin of
Central
Banking
Institutions**

of power to affect the aggregate results of competitive banking enterprise. In different countries their central institutions have been variously evolved. In such countries as England, the central bank simply grew up on the foundations of private enterprise. Being of great assistance to the government in fiscal affairs, it was later endowed by law with special prerogatives which gave it broader and more general powers than those exercised by other financial companies. In other countries, private capital has been encouraged to organize for the specific purpose of assuming public responsibilities, with its management subject to state representation or determination. Elsewhere, governments have exercised almost the sole initiative in organizing such institutions by providing both the capital and their administrative personnel.

**The Failure of
a Central Bank
to Develop in
This Country**

But the lawmakers of 1913 found that central banks, whatever the nature of their origin, had generally evolved to perform functions which the regulation of individual banks could not effectively accomplish. A central bank might easily have developed in this country were it not for law's encouragement of the unit banking system. Institutions with numerous branches spread throughout the country might gradually have been forced to operate along the lines of foreign central banks and to have acquired the power which later would have compelled public recognition. But with the absence of legal sanction of extensive branch powers, such institutions did not develop here. The organization of our reserve banks required the enactment of a comprehensive piece of legislation prescribing in greater detail than elsewhere the powers and methods of operation.

**The
Administrative
Control of the
Reserve System**

The magnitude of the Federal Reserve Act, however, was due not so much to the intention to equip the reserve banks with different powers than those exercised by European central banks, as to the desire to provide a type of administration especially adapted to our decentralized, autonomous institutions. On account of the prejudice against a single central bank, the vast expanse of territory to be served and the attempt to lessen the importance of the New York money market, the very first drafts of the Bill provided for a set of regional central banks. Thence arose the problem of insuring the desirable coordination of their separate activities in the interests of a national policy. Solution here was attempted by providing for the organization of a central body, presidentially appointed, with general supervisory power over the activities of the individual reserve banks. To define the Board's authority, it was empowered to determine the qualifications of eligible paper, to review and determine rates of rediscount, to prescribe rules and regulations governing the conduct of open market operations. Lest these powers should not be sufficient, this central body, the Federal Reserve Board, was given direct representation upon

the district directorates. Three of the nine directors of each district board were to be appointed by the Board, and one of the three, the federal reserve agent, was to be the Board's special ambassador. The Board was also empowered to remove any of the nine directors. Not by one device, but by several, the lawmakers endeavored to insure the influence of this presidentially appointed body.

But it was not regarded as sufficient to endow the Board merely with broad and general powers. Attempts must also be made to establish a fair measure of equality as between the different district banks. A single reserve bank, vastly exceeding the others, might come to exercise that influence which the lawmakers intended to deed specifically to the Reserve Board. Accordingly, in districting the country, the temporary Organization Committee took special pains to limit the area of the New York Bank. In other ways, the influence of the reserve banks operating in the money centers was to be lessened. The Act stipulated that after three years deposits with other banks would not be counted as legal reserve, and provisions were enacted to render federal reserve credits as acceptable as New York exchange. In other words, banking resources were to be decentralized as a part of the plan to establish ultimate supervisory authority in the Federal Reserve Board.

**Means of
Insuring the
Influence of
the Board**

These arrangements were ingenious and a good deal of wisdom went into their formulation. What the framers of the Act seemed to overlook, however, was the inability of law to break down the natural concentration of funds in the money centers and the necessity that the reserve banks in these centers must assume different responsibilities from those operating elsewhere. So far as the reserve banks operate as emergency rediscount institutions, there is no essential difference between the Dallas bank and the New York bank. In each case the reserve bank's problem is to determine just when and under what conditions an individual bank should gain access to the reserve institution. Knowledge of local credit and industrial conditions must herein govern, and this knowledge presumably is most fully possessed by the district directorate. No reserve bank would attempt to prescribe when another reserve bank should rediscount for a member. Neither could the Reserve Board assume such a responsibility. It has always insisted that specific applications can only be passed upon by the regional boards.

**Difficulties of
Maintaining
the Board's
Influence**

But the reserve banks are operating as something more than emergency rediscount institutions. By means primarily of their open market operations they are attempting to influence the total volume of bank credit in the interests of sustaining business activity and controlling gold flows. Because of correspondent bank connections and the development

**The Peculiar
Importance of
the New York
Reserve Bank**

of the commercial paper market, the investment and foreign exchange activities in New York City, the reserve bank operating in that center is quick to feel the effects of outside financial movements. A withdrawal of bankers' deposits to the interior, gold imports and exports, create problems in the first instance for the New York reserve bank.

It is, of course, true that open market activities conducted by other reserve banks in the New York market intensify or ease money strain in that center. But the New York reserve bank is usually in a position to adapt, within limits, its activities to those of the other reserve banks. It holds about 28 per cent of the System's total reserves, 30 per cent of its total resources, 40 per cent of its total deposits. Its discount demand has been relatively heavy and continuous and it is a comparatively easy earner of profits. Its position here is far different from that of such banks as the one in Dallas, whose rediscount holdings in 1926 averaged only about one-fourth of its total of bills and securities on hand. Unlike such banks, the New York bank is in such a condition that earnings can be ignored. From the standpoint of demonstrating its far-sighted wisdom, its directorate might on occasion be not absolutely unwilling to sustain a loss. Operating under these conditions, the New York bank must, and is able to, assume some of the responsibilities which have comprised the traditional problems of institutions that operate in the field of central banking.

It is only over mass and national credit problems that such a body as the Board can attempt to wield great influence. The Board cannot make decisions regarding the acceptance of individual rediscount applications by the district reserve banks. To establish its influence in general credit policy, it is therefore necessary that the Board display a unique grasp and comprehensive understanding of the type of problems with which the New York directorate is directly concerned. Except in the exercise of its minor powers, the Board really has no special province of its own. If it depends upon legal authority, rather than upon argument and persuasion, it is certain to lose the confidence of the reserve banks. If it uniformly accepts the judgment of the New York and other district banks, it must appear in the light of an unnecessary institution.

The specific difficulties of maintaining the intellectual supremacy of the Board are many and weighty. In the first place, the Board is not a bank. Since their own banking organization does not offer any parallel for the Board, representatives of foreign central banks incline to deal directly with our reserve banks and presumably with the one operating in the central money market. In conversations with foreign reserve bank officials, a Board member cannot speak as one banker to another. The Board must always appear as an outside regulating body. The Board's

knowledge of credit conditions is not obtained by direct contacts with specific situations. Understanding of credit matters can only be obtained by interviews, statistical investigations, and in general by indirect inquiry.

There are certain respects in which the very detachment of the Board constitutes an advantage. Its time and energy are not so highly consumed in routine matters in contacts with individual banks. It has the leisure to analyze the long-run results of the day-to-day and week-to-week activities of the district banks. Its research division is best adapted to comprise the central clearing agency for the assembling of quantitative data depicting changes in the mass of credit released by the twelve district banks. In relating the volume of credit to the needs of business it also is the natural agency in the System to prepare business indices depicting national economic developments. The existence of district lines necessarily inclines the regional banks to emphasize industrial conditions pertaining primarily to their own territories. In so far as the clue to credit policy is to be found in these statistics, the Board is in a position to develop influence.

**The Board's
Detachment
Carries
Certain
Advantages**

But there are many limitations upon the ability of the Board to utilize the quantitative data it collects and assembles. The art of determining the exact amount of credit, in the aggregate, that will contribute best to the sustained activity of business is a quality very difficult to develop and it makes a good deal of difference just how reserve credit is employed. Because the demand for credit in stock market activities ordinarily is more responsive to reductions in rates than is general business demand, money injected into the central markets may not reach as directly as desired the communities and the industries wherein additional credit relief will prove most serviceable. Funds released in the New York market may result primarily in the paying off of rediscount indebtedness. Before they can become available the country over they have to pass the hurdle of the New York stock market demand. Furthermore, there are many international complications which manifest themselves principally in New York. Are, for instance, rates on acceptances in the New York market properly adjusted with respect to those prevailing on foreign paper of comparable type? In short, a number of qualitative considerations must be analyzed before credit policy can be formulated on a sheer quantitative basis. These qualitative facts must be known much more precisely and comprehensively by the reserve bank operating in the financial community where such problems present themselves in the form of concrete and specific needs, and are not so highly dressed in academic technology.

**The Art and
the Science
of Credit
Control**

To illustrate these matters, we need only to call attention to a recent situation. In the last few years foreign developments have created some of the most serious of the general problems confronting the reserve admin-

istration. Between the autumn of 1920 and the autumn of 1927 net gold imports to this country exceeded one and three-fourths billions of dollars. The loss of this gold abroad undoubtedly contributed to the international fall of prices. The foreign price decline in turn tended to accelerate a sympathetic downward drift in this country. To check this movement it was essential that measures be employed to restrict the volume of this gold inflow. Among other considerations, the continued loss of their gold increased the difficulty of effecting and maintaining the gold standard in European countries grappling with the problems of currency stabilization.

So far as discount differentials determine gold flows, the most important rates are those prevailing in the New York market. The day-to-day and week-to-week fluctuations of these rates are inevitably part of the direct concern of the New York reserve bank. It is also in New York City that gold flows produce their first effects upon the money market. The adaptation of the reserve banks' open market operations to lessen the violence of money market disturbance involves something more than the knowledge of the kind of measures to be undertaken. The most delicate part of the problem is the question of the extent to which the reserve banks should operate. Should they buy \$25,000,000 more of government securities, or only \$15,000,000? Should they sell \$10,000,000 or \$50,000,000 of securities? The art of the operation is to determine the exact amount of the adjustment required. Only the reserve banks operating in the financial centers can become the depositories of sufficient information and the possessors of the experience necessary to the intelligent and precise determination of such problems.

**Short Versus
Long Time
Considerations**

Analysis of domestic industrial and financial data would undoubtedly throw light upon the modifications of the activities which should be made in the interests of a correct long-run policy. Herein the Board should be qualified to exert its influence. But it must always approach the problem in the light of a critic of established conditions. It must deal with facts previously determined instead of initiating the original activities which in high degree serve to make the current situation what it is.

On account of the difficulties the Board must encounter in impressing its views upon district officials, as well as the fact that many of its major responsibilities fall particularly within the purview of the boards of directors of reserve banks located in the financial centers, there are some who contend that no attempt should be made to improve the dignity and efficiency of the Federal Reserve Board. Those holding this view venture the opinion that the best Board is a weak Board, and that its existence is required only on account of the concessions which must be made to those

who insist upon the direct representation of the government upon the System's administration.

With this view, that no attempts should be made to strengthen the Board, the Committee is not in accord. Under proper conditions the very existence of the Board should exert a harmonizing influence upon the relationships between the separate district banks. While in the past the concert of judgment between district officials seems to have been closer than that of the Board and the reserve banks, occasions may arise in which serious differences of opinion may develop between, say, the reserve banks of the interior and those operating in the financial centers. On such occasions it might be most salutary for the interior banks to have a body possessed of definite supervisory power to which to appeal in their contentions that reserve bank operations in the money centers have not been properly adapted to their needs. The mere fact that appeal could be addressed to such a body must operate to impress the larger reserve banks with the necessity of observing financial requirements away from the great centers of finance. It appears unwise to depend entirely upon the prospects that future officers of the larger reserve banks shall continue to command the same comprehensive understanding of country-wide credit conditions and the same desire to cooperate as seems to have been true of present and past officials of these banks.

It is also desirable that there shall continue in the administration of the System a central body deriving its authority from Congress and sitting in the nation's capital. It should comprise a sort of liaison body between the government and the district banks capable of explaining to Congress the problems which confront the banks, and to the banks the opinion and temper of the legislature. In the exercise, furthermore, of such powers as the definition of eligible paper, the examination of reserve banks, the reclassification of reserve cities, the rearrangement of district lines, it would scarcely be possible to decentralize authority and divide powers between the separate reserve banks.

Less friction develops between the Board and the district banks when the Board is composed of men of understanding. There is perhaps no occasion of disagreement so common as failure to discern the issues. Men of ability have a way of getting together without the sacrifice of vital considerations. A weak Board would be just as likely to "interfere" as a strong Board, and a weak Board would be more likely to compel concession to ill-advised contentions.

On the basis of this belief it is recommended in the Committee Report that by the selection of the ablest personality for Governor of the Board, by strengthening the independence of the Board, particularly in its

relationships to the treasury, by increasing salaries and improving housing conditions, that effort be made to improve the ability and enhance the prestige of Board membership.

Among the alternative suggestions for improving the status of the Board, the following have occasioned some favorable comment:

(a) The Board should consist of two resident members, who, with the Comptroller of the Currency, would constitute an executive committee, and four non-resident members who would attend regular stated and also special meetings.

(b) Reduce the number of appointed members to four, and add to the Board for periods of six months or a year two men from reserve banks—a Governor and a Reserve Agent—these appointments to be made by the other members of the Board with due regard to geographical rotation.

Both of these suggestions are based upon the belief that the fundamental difficulty is the unattractiveness of the job, that there is not enough work within the proper sphere of the Board to occupy the entire time and to command the steady interest of the six appointed members of the Board.

In the judgment of the Committee the time does not appear to be ripe to effect any such comprehensive alterations of the Board's membership. It is true that men who are not students of credit and banking problems will irk at the insufficient outlet for their administrative energies. But the remedy, at least for the present, should be to endeavor to obtain men of superior talent. Men of understanding should find the position highly absorbing. More credit problems will present themselves, demanding solution, than can ever be given the completeness of consideration their importance deserves. But if, after every effort is made to render Board membership more attractive, future Presidents find it impossible to secure members of these capacities, it may become feasible to act along lines such as indicated in these proposals.

IV. Authority to Initiate Changes in Rediscount Rates

In this Section there is a brief discussion of the desirability of the Board's initiating rediscount rate changes. The conclusion that the Board should not initiate changes in the schedules of the different regional banks is in conformity with the briefer recommendation of the Committee Report.

It was inevitable that in the original Act, the lawmakers should fail in some instances to distinguish with precision between the powers of the

**The Powers
of the Board**

Board and the district banks. In the fixation of rediscount rates the framers were confronted with the problem of distributing power between the district directorates, which presumably would possess more complete information about local conditions, and the Board, charged with responsibilities of coordinating the separate activities of district banks in the interest of a national credit policy. Precise phraseology must have vested ultimate rate-fixing power either in the Board or the local directorates. If the question of final power to initiate rates should arise, the courts would be obliged to read into the lawmakers' phraseology more definiteness than was intended. In providing that the Board should possess power "to review and determine" rates of discount, Congress probably meant only that rate-fixing should be subject to the influence both of the Board, with its national responsibilities, and of district directorates, especially concerned with regional credit conditions. It would be most unfortunate if the failure of cooperative endeavor should necessitate rigid court or legislative definition.

If it becomes necessary, however, to determine with exactitude the precise rate powers of the Board and the district directorates, it is most to be desired that power to initiate rates shall be lodged with the separate reserve banks. It has been consistently contended in these reports that, whereas the desirable adjustment of the total volume of reserve credit requires reliance upon open market operations, the principal function of rediscounts is to establish desirable contacts with member banks. Rate changes are only one of the various devices whereby rediscounting may be encouraged or discouraged. Rate changes must be employed in conjunction with other measures, such as refusal to grant the accommodation applied for. It would be most unfair to impose upon the district banks the responsibility of increasing the number of arbitrary refusals in situations wherein the pressure upon the reserve banks could be eased by rate increases. Since the district banks only can determine when rediscount accommodation shall be extended, they should not be deprived of power to initiate, subject to review by the Board, rate changes which are to be regarded as accessory to their other rediscount powers. The Board's rate influence should be principally confined to determining whether the new rates suggested would fit properly into the schedules elsewhere existent and would also harmonize with the open market operations which the reserve banks are conducting.



V. The Federal Advisory Council

The Committee Report contains no recommendation with respect to the status of the Federal Advisory Council. Although no changes are here urged in the Council's powers or method of selection, the following section is appended for informative purposes.

Origin
of the
Advisory
Council

Provision for the organization of the Federal Advisory Council was not made in the first drafts of the bill, but after inclusion in the final draft, the section providing for this body has remained unchanged. In escaping legislative amendment this section holds a unique place in the Federal Reserve Act.

To determine whether the Advisory Council has subserved satisfactorily the purposes of its original creation, it will be helpful to review the legislative history of Section 12. It will be recalled that most of the earlier plans of banking reform involved much more largely than the Federal Reserve Act the idea of control by bankers' representatives. Central reserve associations were to be cooperative organizations of bankers, and the majority of their directors were to be elected by bankers. In view, however, of the violent objections which developed to the Aldrich plan on the ground that the public's interest was not sufficiently recognized, in view further of the fact that the campaign platform of the party in whose administration the Federal Reserve Act was written contained a plank condemning the Aldrich plan, it was only to be expected that the Democratic Party's plan of banking reform would provide for a higher degree of Presidential control. The first drafts of the bill, however, did not go so far as the present Act in eliminating direct representation of the banking interests in the general supervisory body. The bill, as first introduced into the House, provided that the Federal Reserve Board should operate as a sort of an executive committee of the Federal Reserve Commission. This latter body was to consist of two Class A representatives for each district, chosen by the district directorates; three Class B representatives comprising the Secretary of Agriculture, the Secretary of the Treasury, and the Comptroller of the Currency; and three Class C representatives to be nominated by the President of the United States. The Federal Reserve Board was to be made up of the B and C representatives plus two of the Class A representatives selected by ballot by the entire Class A Group. Two of the Federal Reserve Board were thus to be men selected by the district directorates, a majority of whose members in turn were to be chosen by the member banks. Furthermore, the Federal Reserve Commis-

sion itself was to possess many powers, and on this Commission representatives of the district banks would preponderate, according to the number of districts into which the country was to be divided. The statement has been made by one of Senator Glass' associates that the Senator never became convinced that his plan was not superior to that provided for in the Act.

Largely, perhaps on account of cabinet influence, it became necessary to make concession to those who had been insisting that the Federal Reserve Board should consist solely of presidential appointees. Accordingly, the method of selecting the members of the Board was altered and the Federal Reserve Commission was dropped. But it presumably was felt desirable to offer a crumb of comfort to those arguing for a larger degree of bankers' control, and accordingly the bill as it passed the House on September 18, 1913, provided for the organization of a new body, the Federal Advisory Council. This body, however, was to possess no power to enforce its opinions. As its name implies, it was to act solely in an advisory capacity.

The bill which passed the Senate December 19, 1913, made no alterations in the provisions relating to the Advisory Council except to change the section number from 13 to 12, and to add one sentence affirming more clearly the right of the Council to hold other meetings than the four per annum specified by the statute, in addition to whatever other meetings the Board should call. With these slight exceptions the House section has stood without a change.

The absence of legislative revision and amendment provides perhaps the clearest indication possible that the Federal Advisory Council has functioned in about the manner expected. It has not justified the forebodings of the proponents of complete governmental control that it would come to dominate the Federal Reserve Board. At the same time there seem to have been occasions when its existence has supplied a helpful source from which the Board could ascertain financial sentiment in the various districts.

Considered from the point of view of its possibilities rather more than from that of definite accomplishment, the continuation of the Federal Advisory Council is desirable. Future occasions may arise when its existence will afford a check upon the use of the Reserve System's mechanism for political purposes. Undoubtedly we should be slow to abolish the facilities it supplies for enabling the Board to obtain a direct expression of banking sentiment voiced by some of the country's leading bankers. Perhaps an analogy from the experience of district government is pertinent here. There has been some emphasis upon the desirability of holding in each district stockholders' meetings at which reserve bank policies could

Its Record

**Its Continuation
Recommended**

be explained and discussed. For the country as a whole the only way of securing this direct expression of banking sentiment would be by means of district representatives. The Federal Advisory Council is such a body.

Other reasons for its continuation depend upon the possibility of a further decrease in the attractiveness of Board membership. The Advisory Council may offer a means whereby interest in the System may be maintained by those who could not be induced to accept a seat on the Board. The Council, furthermore, may provide the means for continuing interest in the System by able former Board members.

It is undoubtedly true that the government of the Reserve System has developed much more largely on the basis of reserve bank control than first intended. The individual reserve banks after all must be responsible for the execution of policies no matter how they originate, and the line between legislation and administration cannot be sharply drawn. Before policies can be formulated there must be consultation with administrators who can supply the facts. Possibly this development represents history's reply to those who by law would concentrate too much power in presidential appointees.

Various suggestions have been made to increase the Council's influence, as, for instance, that it be endowed with some of the present power of the Board, or that it be given power to recommend to the President lists of prospective Board members.

While no serious objection is made to permitting the Council to make recommendations to fill Board vacancies it does not appear wise to transfer any of the Board's present powers to it. The Board's present powers may be divided as follows:

- (a) Those related to the determination of the broader aspects of rediscount and open market policy.
- (b) Those related to such matters of administrative routine as
 1. Passing upon applications of banks to be permitted to accept bills to the maximum amount authorized by the statute.
 2. Acting upon applications of banks to assume fiduciary powers.
 3. Reclassifying bank cities.

To transfer some of the first class of powers of the Reserve Board to the Council would be objected to on the grounds that:

- (a) It would retard the development of the conception that the broader questions of policy must be based upon the analysis of general credit conditions. Each district directorate elects one member of the Council and accordingly it would be difficult to eliminate the belief that each member should "represent" his own district. To avoid such a de-

**Extent to
Which the
Powers of
the Council
Should Be
Increased**

velopment the present method of selecting Board members was devised.

(b) It would destroy much of the progress that has been achieved in coordinating the work of the Board and the district directorates.

To transfer some of the second class of powers of the Reserve Board to the Council would be objected to on the ground that this would necessitate continuous sessions of the Council. Thereby the composition of the Council would have to be altered. No longer could attendance be expected of men whose other interests are absorbing. Under the present arrangements it is possible to secure the advice and counsel of this type of men.

VI. Directors of Reserve Banks

The principal recommendation of the Committee Report relative to directors was that since directors select the governor, and since directors serve on important committees, member banks should recognize their responsibility of electing able directors. The following section contains some information about the qualifications and methods of selecting directors.

The business of each federal reserve bank is conducted under the supervision and control of a board of directors. They perform the usual duties of bank directors. They are required by the Act to administer the affairs of the bank impartially and without discrimination among the member banks and to "extend to each member bank such discounts, advancements and accommodations as may be safely and reasonably made with due regard for the claims and demands of other member banks."

**Banks
Supervised
By Directors**

Each bank has nine directors, elected for terms of three years each. They are divided into three classes of three directors each. The three Class A directors are chosen by and representative of the stockholding banks; the three Class B directors are chosen by the stockholding banks and must be at the time of their election "actively engaged in their district in commerce, agriculture or some other industrial pursuit"; the three Class C directors are named by the Federal Reserve Board, and one of the three is designated as Chairman of the Board.

**Three Classes
A, B & C**

The Federal Reserve Act sets out in detail the method of election of Class B and Class C directors. The provisions of the original statute with reference to the election of regional reserve bank directors were far from satisfactory. Under them, the Reserve Board, in grouping banks for electoral purposes, was obliged to group them as nearly as possible according to capitalization and at the same time to make the number of

**Election of
Directors**

banks in each group as nearly equal as possible. Anything like equality in the size of the groups was impossible, because there were comparatively few banks of great capitalization. The Phelan Act of September 28, 1918, amending the Federal Reserve Act, left to the discretion of the Board the number of banks to be placed in each group, keeping, however, banks of like capitalization in the same group. A new method of electoral procedure was also put into effect. Member banks had been backward in choosing electors and many did not participate in the elections at all. The Phelan Act provided for the casting of a ballot by some officer of the member bank in the absence of definite provisions by the directors thereof for such action.

Further it was provided in the Phelan Act that no officer or director of a member bank is eligible as a Class A director unless nominated and elected by banks which are members of the same group as the bank of which he is an officer or director. If he is an officer or director of more than one bank, he must be nominated and elected by the group in which is classified the bank of the largest resources of which he is an officer or director. In the Chicago district the small banks had chosen and elected as their representative a man from one of the largest Chicago banks. This situation the Phelan Act rendered impossible of recurrence.

**Qualification
Limitations**

No Senator or Congressman can be a federal reserve bank director. No bank officer, director, employee, or stockholder can be a Class C director.

**Term of
Service**

In a survey of terms of service of regional reserve bank directors made a few years ago it was ascertained that up to July 1, 1925, the general average for length of service of all Class A directors was $5 \frac{1}{6}$ years, for Class B $6 \frac{9}{10}$ years, and for Class C directors, $4 \frac{19}{20}$ years. Thus it is seen that the directors drawn from business pursuits other than banking have the longest average term of service to their credit. In commenting on these data the late D. C. Wills, formerly Chairman of the Board of the Cleveland bank, wrote: "I think that your survey shows conclusively that there has been a sufficient turnover among the directors to inject new views and distribute representation, but at the same time, the directors have served on these boards for sufficient time to be of value. Considering the fact that these directors have no financial interest in the bank, and receive practically no compensation with the exception of a very small fee, the kind of men that have been obtainable is worthy of note."

While different considerations control in the case of commercial banks, it is probably correct to say that reasonably long service of directors

is desirable. The present arrangement of selecting directors seems to give that. Moreover, six of the nine directors are chosen by the stockholders, general business interests are represented, and the voice of the government, as represented by the Class C directors, is strengthened by the fact that the chairman is drawn from that group.

Each federal reserve bank branch has its own board of directors. The Federal Reserve Act stipulates that they shall be not more than seven and not less than three. In practice, the number is seven, except for the branches of the San Francisco bank, which have five each. While appointed for definite terms, they hold office during the pleasure of the Federal Reserve Board, and act to some extent more as an advisory board to the bank than as a board of directors.



V

Reserve Requirements for Reserve and Member Banks

The purpose of this analysis is to determine whether changes should be recommended in reserve requirements for both reserve and member banks and to consider therein such related problems as the classification of deposits upon which reserves are computed.

I. Historical Antecedents of the Reserve Percentages Required of Reserve Banks

No reference is made in the Committee Report to the historical factors responsible for the present reserve percentages required of reserve banks.

Attention is first directed to the adequacy of the reserve percentages applying to reserve banks. The provisions of the original Act requiring a 40% minimum in gold for federal reserve notes and 35% in lawful money for reserve deposits have never been amended. In the fixation of these percentages, the lawmakers did not pretend to engage in extensive investigation or analysis. There had been no recent central banking precedent in this country to serve as a guide in such an inquiry, and accordingly principal dependence had to be reposed in the experience of this country's private banking institutions most nearly resembling the proposed reserve banks and of the various European central banks.

Under the old national banking system, private national banks in the central reserve cities—then New York, Chicago and St. Louis—constituted the keepers of the country's ultimate reserves. These institutions could not redeposit any portion of their lawful reserves with other institutions; consequently their 25% reserves were actual and not paper reserves. In the crisis of 1907, banks in the interior found it difficult or impossible to secure the withdrawal of their funds from the central reserve cities. Despite the fact that the fundamental cause of the difficulty appeared to be the faulty use of reserves, much question arose as to the sufficiency of the 25% figure.

In very many ways the new reserve banks were conceived as successors of the private reserve-holding institutions in New York, Chicago and St. Louis. The Act provided that after three years the reserve banks would comprise the only institutions with which deposits might be made that could be included in legal reserves. It was anticipated that the reserve banks would

be obliged to collect checks and other cash items and that they would assume responsibility for holding available whatever gold for export that exchange operations might necessitate. Since reserve institutions were to exercise many of the functions previously performed by banks whose legal minima had been fixed at 25%; and since doubt had developed regarding the sufficiency of this figure, it was to be expected that required ratios for reserve banks would be made higher than 25%. Moreover, because in general thought we have come to consider note issues as objects of special regulation, it is not difficult to explain why the reserve minimum for federal reserve notes was made higher than the reserve minimum for federal reserve deposits.

In some ways it might seem that reserve banks should not be required to keep any higher reserves than formerly had been demanded of private institutions in New York, Chicago and St. Louis. The reserve banks would be confined to the acquirement of supposedly more liquid paper and they would be subject to the supervision of directorates charged with public responsibilities. But, on the other hand, the ultimate reserves of the country would be concentrated even more largely in the new reserve institutions than in the old private correspondent banks of the central reserve cities, and the experience of European central banks furnished precedents for the holding of very large reserves. Furthermore, reserves for member institutions were to be lowered by the new Act on the theory that responsibility for maintaining sufficient funds for emergencies would be assumed more largely by the new reserve banks.

II. The Desirability of Changing the Reserve Requirements of Reserve Banks

Since few current proposals advocate a change in the reserve minima required of reserve banks, this subject is not discussed in the Committee Report.

Although the original ratios were determined largely on the basis of conjecture, banking experience since 1914 does not seem to indicate the need of any immediate changes in the amount of these reserve ratios. Only after the close of the Great War was the System's reserve ratio close to the minimum. After the clearing of the economic situation following the crisis of 1920, they quickly mounted to so high a figure as to remove any doubt regarding their immediate sufficiency. In recent years excessive, rather than deficient, reserves have occasioned concern. In this connection it frequently was pointed out that much of the gold

Europe has exported might be required in the near future, and that it would be well to raise reserve percentages to insure the availability of these reserves for occasions when a prolonged and extensive return movement of gold might set in. But no definite prediction could be made regarding the probable date of such withdrawals, and it seemed best not to interfere, by raising reserve minima, with the Reserve System's ability to provide this gold. It might be difficult to secure Congressional authority for reducing reserve percentages on future occasions of gold outflow. Since, on the other hand, no necessity existed for lowering reserve ratios, no percentage changes seemed to be required.

The sole immediate issue would seem, therefore, to be whether it is desirable for the Reserve Act to prescribe any reserve minima for reserve banks. In the discussions preceding the writing of the Reserve Act, objection to the theory of legal reserves was common. Therein it was again and again enunciated that reserves are intended to protect banks in emergency situations, but that in periods of difficulty reserves reduced to the minimum cannot be further employed. It was recognized, however, that for member banks the Reserve Act did not go so far as is generally believed in the direction of fixing reserve minima. The Act only prescribes minimum ratios for primary reserves, which ratios might be suspended under certain conditions, and says nothing about secondary reserves, the most important item of which, under the Reserve System, consists of rediscountable paper. In other words, the availability to member banks of the reserve banks' resources rendered the idea of required reserves for member banks less obnoxious.

But the reserve banks cannot depend to any large extent upon disposing of their paper to other banks—in other words, they hold the ultimate reserves of the whole banking system—and accordingly it was felt that law should insure that the reserve banks' reserves should not be cut into on normal occasions. In times of great strain use could be made of these minimum reserves by providing for their suspension under the authority of the Federal Reserve Board.

It could be argued, however, on the other hand, that the type of management provided for the reserve banks rendered legal reserve minima even less necessary for reserve banks. These institutions are administered by directorates which are supposed to consider primarily the general credit requirements of industry. Unlike member banks, profit considerations can be ignored in the determination of their policies. In view then of the contention that it is not necessary to fix a reserve minima for reserve banks, and in view further of uncertainties regarding future gold

**The Need of
Reserve Minima
for Reserve
Banks**

movements, some have advocated that all reserve requirements in the Act pertaining to reserve banks should be eliminated. The relative impotency of reserve minima for reserve banks is further asserted by calling attention to the provision of the Act which empowers the Reserve Board to suspend the requirements.

In our opinion, Congress should not attempt to regulate the operations of the reserve banks further than to prescribe methods of selecting their directorial bodies and to enumerate their powers. It should try to avoid legislating economic policies and determining the extent to which the reserve banks should utilize the powers granted by the Act. In determining the extent to which their powers may be employed, dependence must be placed in the judgment of their management. Since the function of legal reserve minima is to impose a limit upon the volumes of reserve credit, their utility appears to be somewhat questionable.

Economic considerations, however, do not constitute the whole of the problem of credit regulation. Popular opinion and legislative pride must not be ignored. It would have been much more difficult in 1913 to have secured the passage of a bill ignoring legal reserve minima, and to attempt to remove them at the present time would only serve to incite charges that the reserve banks are striving to become super-governmental institutions. Since the alteration of reserve minima would serve no immediate practical purpose, it seems best not to incur this criticism. It is recommended that present reserve requirements pertaining to reserve banks be not altered.

III. Proposals to Alter Member Banks' Reserve Minima

In this section, there are outlined the specific reasons advanced for the alteration of member banks' reserve requirements. Some of these are referred to in various passages of the Committee Report. In no part of the Committee Report, however, are all of these reasons brought together under one head.

Proposals to Alter Member Banks' Reserve Minima

The movement to alter the reserve requirements of member banks has originated in response to four different demands. In the first place, many member banks have never ceased to complain of the changes effected in 1913 and 1917 in definitions, composition and methods of computing reserves. Specific complaint has been directed against the non-payment of interest on reserve balances and the abolition of the float in computing reserve balances.

In the second place, the movement to lessen the power of the reserve banks, by repealing the so-called war-time amendments, has led to the demand that member banks be permitted to count vault money as legal reserve. The second McFadden bill, H. R. 12453, introduced in March, 1925, would have provided that member banks might carry in their own vaults not to exceed 40 per cent of the reserves required by Section 19.

Thirdly, it is contended that changes are required to remove the handicaps under which some member banks are now laboring. Country banks in remote sections contend that since they cannot secure access to reserve banks quickly they are obliged to carry larger vault reserves. They cannot employ the "wheelbarrow" methods of banks easily accessible to the reserve institutions. They request permission either to count vault money as reserve or to deduct vault money from gross deposits in computing reserves. Other banks complain of their inability to deduct "due from" items from demand deposits. At the present time "due from" can be used only to offset "due to banks." Banks which customarily have little "due to other banks," and these are mainly country banks, argue that they should be given greater credit for their "due from" by securing a reduction in the amount of deposits requiring reserve.

Fourthly, many argue that the time has now arrived when a more scientific classification of deposits and reserves should be attempted. In general it is held that reserves should be based solely upon the nature of deposits and not upon the population of the city in which the bank is located. Banks, for instance, which hold deposits of other banks should maintain the same reserve percentages for these deposits regardless of whether they are located in country or reserve bank cities.

It is also held that attempts should be made to prevent banks from transferring to the "time" classification those deposits which in reality are subject to immediate encashment.

Before considering the validity of these specific contentions there should be some discussion of the adequacy of the general ratios and the factors which are responsible for the present percentages.

IV. The Desirability of Altering the Reserve Percentages Required of Member Banks

In the Committee Report proposed changes in member bank reserve requirements are discussed from the standpoint of the effect upon the membership of the Reserve System. In the following sections changes in member banks' reserve requirements are discussed from the standpoint of their own specific merits. In this section some account is also made of the historical antecedents of the present reserve requirements imposed upon member banks.

Reserve Requirements for Member Banks

Present reserve requirements are the results of adjustments of former reserve ratios to meet various exigencies, and to explain fully why present figures are what they are would require an investigation of the banking situation running back many years. When banks were classified under earlier national statutes, the lawmakers, in fixing reserves, probably did little except to try to preserve in approximate measure what seemed to be the existing situation in soundly managed state institutions. Fifty years later, at the time of the writing of the Federal Reserve Act, the lawmakers were confronted with a definite situation and concerned themselves primarily with the question of the changes which the new system would require.

In this they had to pay attention to such matters as imposing no unnecessary hardship upon banks whose membership was solicited, observing the altered responsibilities of the various private institutions, and the need of so handling the situation that refinements in computing reserves could be introduced. In regard to the last matter, problems related to the "float" and the classification of deposit obligations were serious. As to the float, it seemed essential to abolish the old custom whereby the Comptroller of the Currency permitted banks to count, as reserves, items collectible from other banks at the time of their deposit in the mails. As to the classification of deposits, it appeared that banks whose obligations were largely deferred should not be required to maintain as large reserves as those whose liability to customers was more immediate.

At the same time it seemed that with the existence of more concentrated reserves in the reserve banks, reserves of member institutions need not be so large as previously. Considering these various factors, the reserves fixed in the original Act were reasonably well conceived.

Nevertheless, considerable agitation for their further reduction ensued after 1914. At the same time, to concentrate reserves more largely in the vaults of reserve institutions, the reserve administration came to

advocate in 1916 certain changes in the law. By the amendments of June 21, 1917, both of these desires apparently were heeded. By requiring that all reserves be lodged in the reserve banks, it was possible to effect a further reduction in legal requirements. Since vault money could no longer be counted as legal reserve, it is difficult to state how great was the real reduction. Apparently, however, member banks' demands for lower reserves were respected, while at the same time the reserve administration succeeded in bringing a larger portion of the nation's reserves within the reserve bank reservoirs.

So far as the ability of the average bank to derive profits is concerned, too much significance has undoubtedly been attached to reserve requirements. Profits depend in large part upon the possession of differential advantages. A further lowering of reserve ratios would be unlikely to redound to so great advantage to banks as a whole as is frequently anticipated. To the extent that one bank would be able to loan more, there would be at least the partial offset of increased competition by other banks. But, however this may be, it is much more to the interest of member banks that generally sound credit conditions be maintained, than that they be empowered to expand their loan and investment operations. The utility of a general change in reserve ratios depends primarily upon the desirability of encouraging an expansion or contraction in the mass of member bank credit.

A general contraction of member bank credit might be argued on the ground of improving the liquidity of member banks. But there are other and more far-reaching devices for strengthening the ability of any bank to meet sudden strain. The most important of these is the maintenance of an adequate secondary reserve in the form of rediscountable paper. The constant education of member banks as to the necessity of holding sufficient amounts of eligible paper presents more promise than the raising of reserves. The increase of reserve minima would also render the membership question more difficult.

A general expansion of credit might have been urged on some occasions for the purpose of resisting a lowering tendency of commodity prices. But waiving the question of the desirability of employing credit devices to counteract falling tendencies of prices, it appears that this is a problem of reserve rather than of member bank policy. The effects of a reduction in member banks' reserves would only be temporary. As soon as the volume of credit should become adjusted to the lower ratios, further expansion would require still other reductions. A continuous lowering of member banks' reserves would be impossible. In the meanwhile, it would

become more difficult for the reserve banks to maintain contact with the money market and so derive satisfactory earnings. It accordingly would seem that changes in reserve requirements should be confined principally to the correction of inequalities affecting particular classes of banks.

V. The Proposal to Pay Interest on Member Banks' Reserve Balances

This subject is treated in much the same way as in the section of the Committee Report on Reserves of Member Banks.

We have concluded that reserve banks should not pay interest on member banks' reserve balances. The demand for interest payments on reserve balances is largely derived from the fact that under the old National Banking System it was customary for interior banks to keep part of their reserves as deposits with reserve and central reserve city banks and to receive a small interest thereon. Under the terms of the Reserve Act of 1913, however, reserve requirements were reduced by amounts calculated to be sufficient to offset the loss of interest on such balances. By the amendment of June 21, 1917, reserve requirements were still further reduced. The effect of denying interest on reserves upon the earning power of member banks has not been ignored.

The main objection to granting the proposal depends upon the fact that particularly in years of reduced earnings of reserve banks, the necessity of making such payments would create pressure to earn more. The effects of this policy would either be to increase the competition of reserve banks with member banks or to lead them to ignore considerations bearing upon the soundness of the general credit situation. If the membership problem does require some concession in the distribution of earnings to member banks it would be preferable to proceed upon the lines of distributing larger dividends to member banks in years in which the net profits of the reserve banks are sufficient to sustain such distributions. Statistics show that there has not been a year since 1921 in which the earnings of the reserve banks would wisely have permitted anything like a two per cent return to be paid on reserve balances. Such a proposal, if accepted, would accordingly force the reserve banks to enter the market much more largely than at present as competitors of member banks.

VI. The Proposal to Grant Immediate Credit on Deferred Availability Items

This subject is not discussed in the Committee Report.

The contention that reserve banks should abandon their present practice of giving deferred credit and give immediate credit on collection items analyzes in much the same way as the proposal to pay interest on reserve balances. The acceptance of this proposal would lead to an enormous expansion in the volume of member bank credit. On July 31, 1929, the total amount of deferred availability items was \$611,362,000. This sum was approximately one-fourth of member banks' reserve account on that date, and would amount to almost one-half the total outstanding volume of reserve credit. Giving immediate credit for deferred availability items would be one of the most inflationary devices that could be legislated. It is furthermore obvious that there are many discrepancies as between banks and that the bank which sends in relatively the most immediately collectible items should be permitted to build up its reserve balances faster than other institutions. The deferred availability method does subserve this purpose.

Banks which have incurred temporary reserve deficiencies, to re-establish which requires discounting or sale of paper to the reserve banks, naturally object to their inability to receive immediate credit on checks sent in for collection which fall in the deferred availability classification. Between the desire to satisfy banks which insist upon immediate availability and the necessity of avoiding any sudden and rapid expansion in reserve balances, it is difficult to find a compromise. One possibility would be to permit member banks to receive immediate credit on deferred items subject to the payment of an interest charge for the period which would be required to effect collection. Such a payment of interest would be a substitute for the discount exaction now incurred in borrowing from the reserve banks to re-establish the necessary reserve balances. It might be that the method of electing immediate credit, subject to the interest charge, would be more convenient and superior to present discount procedure.

One objection to the proposal might be that the determination of the interest schedules would constitute an addition to the reserve banks' present powers. In view of the fact that experience has not yet decreed with certainty just how the reserve banks should harmonize their present powers, we do not believe it would be desirable to confuse the situation

still further. It cannot be too strongly stressed that nothing is more important for efficient reserve administration than continuous popular criticism and anything that unnecessarily adds to the difficulty of analysis is, other things equal, to be deplored. It, furthermore, is probable that, in the distant future, improved methods of communication and increased use of the telegraph may realize immediate credit in very large degree without requiring the reserve banks to extend credit before they make collection.

VII. The Proposal to Count Vault Money as Legal Reserve

In the Committee Report the proposal to count vault money as legal reserve is objected to on the ground that it is not desirable as a means of lessening lending powers of the reserve banks. It is there contended that it would be undesirable to employ this or any other means of reducing markedly the reserve requirements of member banks. In the following section both of these points receive somewhat fuller comment.

Treatment of Vault Money

The proposal to count vault money as legal reserve has been brought forward to accomplish one of the following purposes:

- (a) To lessen the lending power of the reserve banks.
- (b) To effect a real reduction in reserve requirements for member banks.
- (c) To remove certain unintended inequalities in reserve requirements for different classes of member banks.

Some advocate that member banks be permitted to keep a part of their required reserves in their own vaults in order that they would be led to request a return of a portion of their deposits with the reserve banks and thereby lessen the lending powers of the reserve banks. In so far as the return of funds should be demanded from the reserve banks, the resources of the reserve banks would be diminished. But this proposal would also enable member banks to count as reserve present holdings of non-reserve cash. An effect, therefore, would be to increase member bank earning assets and thereby encourage a considerable expansion in the volume of member bank credit.

To avoid such an expansion and to confine the influence of this proposal to lessening the resources of the reserve banks, it would be necessary to raise present reserve percentages of member banks to an amount ap-

proximating their present holdings of vault cash. On account of the objections such an increase in reserve percentages would incite, even though the amount of the real reserves required would not be enlarged, and also because member banks which customarily keep small amounts of vault cash would be discriminated against, current proposals do not advocate the offset of an increase in member banks' reserve percentage.

To avoid encouraging an excessive degree of member bank credit expansion, which would follow from the inclusion of vault money in required reserves, the second McFadden bill, H. R. 12453, introduced in March, 1925, would permit member banks to hold only 40 per cent of their required reserves in the form of vault cash. But while this provision would limit the extent to which some member bank earning assets would be increased, as well as the amount of reserves which would be withdrawn from reserve banks, it would not prevent practically all of the vault cash—now exceeding five hundred millions of dollars—from being counted as legal reserves. The only banks whose earning assets would not be increased by the full amount of their vault cash would be those whose vault cash exceeds 40 per cent of their total required reserves. On March 27, 1929, all member banks held in their own vaults cash equal to only about 22 per cent of their required reserves. The counting of vault cash must have the effect of encouraging credit expansion on the part of member banks. It is impossible to consider this proposal solely as a means of lessening the resources of the reserve banks.

It might be argued, however, that a reduction in the volume of reserve credit would result from the probable attempt on the part of the reserve administration to cut down the volume of its own operations and thus counter the enlarged lending powers of the member banks. In so far as the reserve banks should thus operate, one of the purposes of the proposal would be accomplished. But if the discretion of reserve banks can be relied upon to restrain member bank credit expansion, there is less reason for limiting in this way the lending powers of the reserve banks. In all events, the outstanding volume of reserve credit has been greatly cut into by the huge gold inflows of recent years, and the effectiveness of the reserve banks to adapt the volume of their operations to the requirements of business stability would be seriously threatened if they should be obliged to withdraw from the market to a much greater extent than the gold imports have compelled. Because it is not believed desirable to sustain at this time the difficulties which might result either from a marked and sudden expansion in the volume of member bank credit or from depriving the reserve banks of a perhaps none too firm market contact, this committee does not favor the counting of vault money as legal reserve.

Many country banks situated in remote sections, however, insist that they should be given credit for the larger amount of vault money which they are obliged to hold and, accordingly, they support the proposal on the ground that it would be an equitable means of putting them in the same relative position as the city institutions. Statistics do support the assertion that the non-counting of vault money makes the real reserves required of country banks relatively higher than they seem to be. On December 31, 1928, for instance, member banks in reserve and central reserve cities held as cash in vault an amount equal to only two per cent of their demand deposit liabilities, whereas on the same date all country bank members held cash in vault to an amount equal to five per cent of their demand deposit liabilities.

This does not necessarily argue, however, in behalf of the inclusion of vault money in legal reserves. Country banks are not required to keep as large reserve percentages as reserve city banks for demand deposits, and there are some respects in which their problems of maintaining themselves in a liquid position are the most difficult of any class of banks. It is not easy for the rural bank to secure as great a diversification of resources as the very nature of borrowers' demands may virtually thrust upon a city institution. Smaller banks furthermore operate in localities of relative scarcity of capital and often under conditions of greater overhead costs per dollar of loans. It is more difficult to induce many of these banks to invest a satisfactory portion of their assets in outside paper. The maintenance of adequate secondary reserves is for them a serious problem. In view of these considerations it would not appear defensible to go so far as to include vault cash in legal reserve money. It is our judgment, however, that the principle of permitting vault cash to be deducted from gross demand deposits can be approved.

VIII. The Proposal to Deduct "Due From" Items From Demand Deposits

In the following section, a few figures are given to support the contention in the Committee Report that, in cases where "due from" items exceed "due to" items, banks should be permitted to deduct "due from" items from net demand deposits.

In similar manner there seems justification for the proposal to permit banks whose "due from" items exceed their "due to" items to deduct

“due on demand from” items from demand deposits. At the present time, country banks do not show enough “due to” items to enable them to secure any large credit for their “due from” accounts. As of March 27, 1929, we find the following condition of the three classes of member banks:

EXCESS OF AMOUNTS DUE TO BANKS OVER AMOUNTS DUE FROM BANKS AS REPORTED BY BANKS IN CLASSIFICATION INDICATED.¹

	In thousands of dollars
Central Reserve City Banks.....	618,558
Reserve City Banks	420,274
Country Banks	86,060

Country banks whose “due to” items exceeded their “due from” items were able to show a net indebtedness of only 86 million. The relative smallness of this figure makes it evident that country banks as a class derived comparatively little benefit from the permission to deduct “due from” items from “due to” items. On the other hand, figures which compare the total “due to” items with “due from” items, show that other country banks would profit considerably by being permitted to deduct items due on demand from other banks from gross demand deposits, instead of from amounts “due to” other banks only.

IX. Reserves Required Against Deposits Due Other Banks

The position that country banks should keep the same percentage of reserve against deposits “due other banks” as reserve city banks is herein upheld. This section amplifies slightly the briefer statement of the Committee Report.

When the Reserve Act was written, the framers recognized the fact that the basing of reserve percentages upon the population of the city wherein the bank was located was not scientific. Neighborhood banks—in outlying sections—in large cities do not keep large deposits of other banks and they frequently have argued that they should be reclassified in such a way as to reduce their required reserves. Accordingly, the Federal

¹ In this table, figures are not shown for banks whose “due from” items exceed “due to” items. Such an excess would be of no avail under present methods of computing reserve requirements.

Reserves
or Net
Amounts Due
Other Banks

Reserve Board was empowered to effect such redesignations as should appear feasible. Moreover, the Board has disestablished St. Louis as a central reserve city and also occasionally removed from and added cities to the reserve city classification. The Board, however, has been hesitant to effect a comprehensive reclassification, and has acted solely in response to petitions of local banks.

This, of course, is as would be expected. Unless such classifications are effected on the basis of the character of the deposits, embarrassing precedents would be created. At the same time it was difficult to classify deposits from the standpoint of the desirable reserves. The Act went no further than to distinguish between time and demand deposits. But the principal occasion for the reserve differentials in the National Banking Act was the varying amount of bank deposits due other banks which, it was generally agreed, should carry higher reserve percentages than the country banks' seven per cent held by various institutions. If bank deposits outside New York and Chicago should command uniformly, say, a ten per cent reserve regardless of their location, part of the necessity for retaining the old population classifications would disappear. Accordingly, the principle of subjecting net bank deposits in reserve and country bank cities to the ten per cent reserve has much to commend it. This proposal would have the further merit of discouraging some country banks from bidding for deposits from other banks, whose advantages as correspondent banks depend almost solely on the low reserve requirements.

X. Conclusion

Summarizing our conclusions, the following would tend to reduce the amount of the required reserves:

- (a) Permitting the deductions of vault money from gross demand deposits.
- (b) Permitting the deduction of "due on demand from" items from gross demand deposits.

The following suggested alteration would increase reserve requirements:

- (a) For country banks, requiring net amounts due banks to carry a ten per cent reserve.

It should be perceived that these changes would effect no considerable modification in the aggregate requirements of member banks.

XI. Time Deposits

No reference was made in the Committee Report to the problems created by the recent rapid increase in time deposits.

Since the creation of the Reserve System, the most striking change in the composition of total bank deposits has been due to the rapid growth of time deposits. Since 1915, time deposits have increased from 28 to 50 per cent of country banks' total deposits. For reserve and central reserve cities the percentage growth has been from 8½ to 26 per cent of total deposits.

The relative gain in time deposits has led to two dissimilar demands. In the first place, with time deposits so greatly enlarged, many banks have insisted that the three per cent reserve be reduced or eliminated. In some states, banks are able to support this proposal on the ground that state law compels no legal reserve for time deposits. On the other hand, it is commonly asserted that the growth of time deposits represents in large degree the transfer, from the higher reserve classes, of balances which in reality are of a commercial character. The inability to check against time deposits is frequently overcome by keeping pass books on deposit at the tellers' windows. Although thirty days' notice may be required on withdrawals, there may be the tacit understanding that this notice usually will be waived. The net effect, it is claimed, of keeping the time deposit reserve so low is to encourage this transfer.

The absolute elimination of time deposit reserves would produce too radical alterations in the existing situation to warrant acceptance. It may be, however, that other restrictions and protections upon time deposits may be employed as a partial substitute for money reserves. In New England there is much support for the suggestion that banks be given the option of keeping the three per cent reserve for savings accounts or of maintaining a one per cent money reserve plus a ten per cent deposit of government bonds or other approved gilt-edge securities. The latter option would tend to develop a situation wherein the tendency towards segregating savings banks' assets would be hastened.

There is much to offer in behalf of the segregating of savings' assets from those employed in the other operations of the bank. In cases where the solvency of the bank is believed to be threatened, demand deposits may be withdrawn. The thirty days' notice requirement debar the savings depositors from effecting similar withdrawals. Segregation might accomplish something in the direction of lessening this discrimination against

the savings depositors. While the time does not appear ripe to enact definite national legislation on the matter, it would seem that attention can be feasibly directed to the suggestion of substituting a larger bond collateral requirement for a portion of the three per cent reserve.

The great growth of time deposits is noteworthy and of probable long duration. It is not clear how far the explanation is to be found in the mere transfer of commercial accounts. In recent years the volume of savings has been tremendous, and money rate movements have rendered time deposits more attractive. Savings bank rates have not declined proportionately with the falling yields on investment securities, and as a result the tendency to maintain large savings accounts has been encouraged. At the same time, corporations have learned to analyze their working capital needs with greater precision. In many instances they have found that the whole of their bank account need not be immediately withdrawable and that a portion might be kept as a time deposit to back up their demand accounts.

The usefulness of time deposits must, under present regulations, be limited by the inability to enter checks into clearings. At any rate, the bank does possess the option of refusing encashment except upon notice. While the rapid growth of time deposits should be observed with care, it is not clear that their reserve percentages should now be increased.



VI

Federal Reserve Notes and Other Currency

I. Special Importance Attached to Federal Reserve Note Issues

In this section an attempt is made to account for the special treatment lawmakers have frequently given to note issues. The Committee Report contains no discussion of these points.

In many ways lawmakers and currency experts have manifested their special interest in the note emissions of our banks. Although far exceeded in volume by deposit credits, more paragraphs in our banking law apply to the regulation of note issues than to the regulation of deposits. Many of the earlier plans of banking reform suggested few alterations outside the field of note emissions, and in the Federal Reserve Act provision was made for the separate treatment of notes.

Whereas the actual administration of the reserve banks' credit operations was left largely to the district directorates, the Federal Reserve Board was given specially detailed supervision over note operations. Although this distinction has not been of great practical importance, it does serve to display the attitude of the lawmakers. It furthermore will be observed that the most violently adverse criticisms of the Federal Reserve System have singled out the federal reserve notes as special objects of attack. In his discussion of the bill which became the Federal Reserve Act, Senator Elihu Root, on December 13, 1913, emphasized the insufficiency of the note reserves; and, of late, there has been some insistence that federal reserve notes not covered to one hundred per cent of their face value by commercial paper obtained solely through the process of rediscounting represent inflation. A legislative suggestion, the second McFadden Bill, H. R. 12453, introduced in March, 1925, would prohibit the issuance of federal reserve notes directly against gold or paper purchased in the open market.

It is not difficult to understand why the machinery of note issuance has received great emphasis in discussions of banking reform. In the past, money stringency has appeared to originate in the inability of our banks to supply the public with the desired amount of circulating currency, and it has been easy to overlook the fact that, were it not for the rigid reserve

**Reasons for
This Emphasis
Upon Note
Issues**

requirements applying to deposits, this currency might have been obtained from the banks' reserve moneys. In countries other than the English speaking, the principal media of exchange have been bank notes rather than checks, and the central banks of Continental Europe have operated primarily through note issuance. Bank notes, moreover, represent a form of paper money and in earlier history the periods of most violent inflation have been those of excessive issues of paper money. Such paper moneys as the greenbacks supplied banks with reserves permitting the building upon them of a larger amount of deposit credits, thereby increasing expansionistic possibilities. Bank notes may not now be counted as legal reserves of member banks, but laws in some states permit federal reserve notes to be employed as reserve money.

II. The Elasticity Required of Federal Reserve Notes

In Section II of the Committee Report—Reserve and Note Issues of the Federal Reserve Banks—it was argued that since the country's principal medium of exchange consists of checks drawn against deposits the function of note issues is to adjust themselves properly to the volume of deposit credits. The principal responsibility of the reserve banks is to regulate the volume of deposits and attention should not be concentrated upon note issues. From this it would be implied that a high degree of note elasticity is not required except as it enables the amount of note issues to be more easily adjusted to the volume of deposit credits. This point is further elaborated in the following section.

**Is Elasticity
the Prime
Desideratum?**

Deposit credits constitute the principal element in our present circulating media; and, accordingly, it would seem that note issue provisions should be analyzed from the point of view of the way in which they fit into our general credit machinery. When we ask what characteristics note issues should possess in order best to facilitate the proper adjustments, it is customary to emphasize the quality of elasticity. Notes, it is argued, should have the power to alter their volume according to changing demands of trade. They should be flexible, capable of expanding as well as of contracting, with the varying fluctuations of business. Note elasticity must be relied upon, so it is argued, because other elements of our monetary circulation, including gold and gold certificates, silver and silver certificates, and the greenbacks, at any given time are fixed rather definitely in volume.

**In the Present
Banking System
Can Note
Issues Be Too
Elastic?**

When reserves behind deposits were rigidly fixed, prior to 1914, and the banks held little cash in excess of reserve requirements and were unwilling to make free use of their resources even in emergencies; when there did not exist a set of reserve banks guided by directorates with public responsibilities, it would be difficult to deny that the banking system

was handicapped by the inelasticity of its bank notes. Now, however, all of these conditions have been altered, and it is necessary to inquire whether there is not danger of introducing too much flexibility into our currency system. Accordingly, brief mention should be made of other ways by which the varying requirements of trade may be satisfied.

To meet the increasing demands of trade, currency can be drawn into circulation from the reserves of banks. It has been pointed out that, in the days of the old banking system, reserves behind deposits were likely to be reduced rather quickly in periods of activity to their legal minima, with the consequence of stiffening discount rates and creating general credit strain. But under the present banking system it is not to be expected that reserve ratios of reserve banks will often be permitted to fall close to the minimum. The gold reserves of the reserve banks now appear to be at least sufficient to sustain any currency demands of immediate expectancy. The Reserve Board can require one reserve bank to rediscount paper for another reserve bank; and something has been accomplished in the way of developing a central discount market for acceptances. In brief, the situation is so totally different from the old that the necessity of a high degree of note elasticity is no longer accepted as a matter of course.

Possible Danger
of Too Much
Currency
Elasticity

Of late, a number of experts have commented upon the danger of endowing note issues with too high a degree of elasticity. A member of the Federal Reserve Board has pointed out that the particular European central bank whose methods of operation are the most similar to those of the reserve banks, the Bank of England, has had exceedingly inelastic note issues. He argues that instead of rendering credit administration more difficult, note inelasticity may have assisted this bank in the problem of credit control. In England, periods of expansion, as elsewhere, create increased demands for currency. Since—leaving out of account changes in the direction of greater elasticity wrought by the law of 1928—new issues of bank notes could only be obtained by lodging with the Issue Department their equivalent in coin or bullion—the reserves of the Banking Department tended to be quickly depleted. Instead of lamenting this tendency, this Board member observes that the need of initiating such restrictive measures as rate increases and sales of securities to absorb the market's funds was likely to be manifested sooner. Its directorate would thus be led to put on the brakes early, albeit mildly, at first, whereas otherwise speculation and business enterprise might become excessively involved before restrictive measures could be initiated.

In line with these conclusions, it would seem that while reserve ratios may be losing some of their earlier significance as a guide of credit policy,

**Not Elasticity,
but Relation-
ship to Credit
Policy the
Prime
Criterion**

**Were It Not
for the Public's
Currency
Requirements,
Credit Reg-
ulation Would
Be More
Difficult**

it still may be true that direction and degree of change of reserve ratios may supply one of the most sensitive indicators of credit and currency movements.

It thus appears that note issue provisions must be appraised from the standpoint of the manner in which they fit into the general credit policy of the banking administration. The importance of note issues depends primarily upon the way in which they facilitate or hinder the proper regulation of business' principal media of exchange, deposit credits.

At this point it should be observed that were it not for the currency requirements of the public, effective control of credit by the reserve administration might be much more difficult. Member banks as a rule do not carry any very large surplus reserves. When their deposits expand sharply or the public's demands for currency increase, they will be driven to request further accommodations from the reserve banks, assuming, of course, that their needs are not being adequately satisfied by gold imports. When the public's demand is largely for more deposit credits, member banks are not required to discount so extensively with the reserve banks as when the need is primarily for more circulating currency. Deposit credits can be supported by a reserve credit smaller than the amount of the credits advanced to customers. To obtain currency for counter-money purposes, however, member banks are obliged to borrow from reserve banks to an amount equaling the currency obtained. Increased currency requirements make member banks' reserve ratios subject to greater change than otherwise would be the case.

If now it can be shown that in periods of business expansion, the public's currency requirements normally enlarge, the reserve banks will be in a stronger position to induce conservatism by the imposition of rate increases and other checks. Generally, trade activity does bring with it an increased demand on the part of the public for currency. In a period of brisk business, people carry more money in their pockets and merchants require more money for their tills. To secure this currency, member banks are compelled to discount further with reserve banks, taking federal reserve notes from the reserve institutions instead of having their reserve balances credited. The point of all this is that the public's increasing currency requirements in periods of activity assist the reserve banks to render their discount rate policies more effective.

In several of its official pronouncements these facts have been recognized by the Federal Reserve Board. In its Annual Report for 1923 we find the following:

“Ordinarily the first effect of an increase in business activity upon the banking position is a growth in loans and deposits. In the earlier

stages of a period of banking expansion there is usually a roughly parallel upward movement of the loans and deposits of the banks. Later on, however, the situation changes. There comes a time when the increase of business activity and the fuller employment of labor and increased pay rolls call for an increase of actual pocket money to support the increased wage disbursements and the increased volume of purchases at retail. At this stage the rough parallelism between the growth of loans and deposits of the banks gives way to a divergent movement between these items. Loans may continue to increase while deposits will remain either stationary or show a decline. When the point is reached in a forward movement of business where manufacturers and dealers need more money for pay rolls and other purposes they draw down their deposits at the banks. What in the first instance was the creation of bank credit in the convenient form of a checking account has now become a demand for cash. In other words, the customer's demand for book money (deposits) at the bank becomes converted into a demand for pocket money. This change is reflected in the altered position of the banks. The ratio of loans to deposits rises with an increased demand for currency."

Similarly in the Federal Reserve Bulletin for July, 1926, we read:

"The close correspondence between changes in the volume of reserve bank credit in use and changes in the volume of money in circulation, brought out by the chart, arises from the fact that a withdrawal of currency from the member banks, in response to a growth in the demand for currency, increases their requirements for reserve bank funds by practically the full amount of the withdrawal, while an increase in the volume of member bank deposits, arising from a growth in the demand for deposit credit increases the requirements of the member banks for reserve bank funds by only a fraction of the growth in their deposit liabilities. The reason for this is that the reserve balances, which member banks are required to maintain against demand deposits, are between 7 and 13 per cent of these demand deposits, depending on the class of banks, and when demand deposits increase the growth in the demand for reserve bank accommodation consequently amounts to between 7 and 13 per cent of the increase in deposits. When the public requires additional funds in the form of bank deposits rather than of currency, the demand for reserve bank funds therefore increases only by a fraction of the increase in the deposit liabilities of the member banks. When the community desires additional currency, however, to meet increased pay rolls and to conduct a larger dollar volume of retail sales, the reserve balances of member banks are reduced to the full amount of the currency withdrawn, and a corresponding volume of reserve bank credit is required in order to restore the reserve balances to the level prescribed by law. *Consequently, changes in the volume of reserve*

**The Reserve
Banks Are
Largely Issue
Institutions**

bank credit in use closely reflect in most cases changes in the public's demand for money in circulation."

The reserve banks are thus to be regarded in large degree as note issuing institutions, and their ability to make their rate policies effective is facilitated by this fact. Accordingly, the present machinery for note issuance should be appraised from the point of view of its relationship to reserve banks' credit operations. Note emissions should not be analyzed as if they were independent of other reserve operations, and it must be understood that highly elastic note issues might increase rather than lessen the difficulties of credit regulation.

III. The Issuance of Federal Reserve Notes Against Gold and Acceptances Purchased in the Open Market

In the Committee Report it was argued that no attempt should be made to impose by law precise limitations upon the lending powers of the reserve banks. Largely on this account the committee disapproved of the proposal to permit the issuance of federal reserve notes only against the collateral of rediscounted paper. The committee also held that it was unnecessary to suspend the present provision that gold deposited as collateral for federal reserve notes may also be counted as reserve money. It was further concluded that to prohibit the issuance of federal reserve notes against acceptances purchased in the open market would operate to the special disadvantage of some of the smaller reserve banks of the South and West.

These points are elaborated in the following section and further observations are made relative to the convenience, simplicity and historical antecedents of the present procedure.

**Should Federal
Reserve
Notes Be
Issued Solely
on the Col-
lateral of
Discounted
Commercial
Paper?**

With the acceptance of the thought that the regulation of note issues is subordinate to the regulation of deposit credits, we are in a position to consider various suggestions that have been made for the purpose of improving the note issuing machinery. Many of these seem to be based upon the idea that a simple, mechanical means can be devised by the observance of which note issues will be rendered more elastic. It has been asserted that notes should be issued only on the security of commercial paper obtained in the process of discounting for member banks, and that the collateral for federal reserve notes deposited with the reserve agents should not comprise gold or acceptances bought in the open market. It has been argued that if this change in collateral is effected, federal reserve notes

should adjust themselves automatically to the requirements of trade. It has been pointed out that when business is more active, more collateral will be available for the securing of reserve notes; and, on the other hand, when trade demands fall off, the volume of eligible collateral will be reduced and thereby compel the retirement of the notes or of some other element of currency.

While it would be difficult to prove that such a note issue could not be properly regulated, it is our view that it would give a mistaken emphasis to the problem of note emission and might necessitate indirection in the activities of some reserve banks. As the reserve banks must be more than mere emergency institutions, deliberately determined control exercised by a body of intelligent men is indispensable. Despite popular antagonism to the lodgment of any high degree of regulatory powers in any board or directorate, no ideal solution is possible which does not partake to some extent of the idea of a currency related to a managed system of credit.

The reserve administration, by its open market purchases and rediscount policy, must help to set the stage upon which member banks shall be relatively free to act according to their own desires in their specific lending operations. It has just been contended that the public's currency demands aid the reserve administration to render its credit policy effective. While the suggestion that discounted commercial paper should comprise the sole note collateral would not render the administration powerless to give effect to the results of its credit investigations, it would shift emphasis away from the idea of scientific analysis of the credit situation. The suggestion has behind it the thought that if only commercial paper is made the sole collateral, note issues will take care of themselves. This is impossible. The arbitrary limiting of rediscounts to commercial loans is no adequate safeguard because the volume of commercial loans increases with the development of inflation and commodity speculation. No automatic piece of machinery can ever be substituted for wise judgment and discretion. As stated in the Committee Report, the hope of continued progress in regulating the volume of reserve credit depends upon empowering the reserve administration to build upon its experience, retaining those policies which have proved successful, discarding those which seem fruitless and continuously contemplating fresh improvements.

Some have supported the suggestion of limiting federal reserve note collateral to commercial paper obtained by discounting with the argument that, now the emergencies created by the war are over, we should return to the arrangements authorized by the Act of 1913. Accordingly, explanation must be made of the developments which led to the later acceptance

**No Mechanical
Method of
Regulating
Note Issues
Will Suffice**

**Why the
Original Act
was Amended
Permitting
Federal Reserve
Notes to Be
Collateraled
by Gold or
Open Market
Paper**

of gold and open market paper as collateral. The matter of gold collateral will first be considered. This development is set forth in the Federal Reserve Bulletin for July, 1926:

“Under the provisions of the original Federal Reserve Act, federal reserve notes could be issued by the agent only against eligible paper but, to redeem this paper without retiring the notes issued against it, a federal reserve bank could substitute other eligible paper or gold. When gold was deposited, it extinguished the liability of the reserve bank for the federal reserve notes in circulation. From the first, the reserve banks chose to cancel a large portion of their liability for notes in circulation by the substitution of gold for eligible paper as collateral, and as early as 1915 the Federal Reserve Board recommended to Congress that the procedure of note issue be simplified by permitting the issue of notes directly for gold. The act was amended in this respect in June, 1917, and at the same time federal reserve banks were permitted to count gold held by the agent as collateral for notes as part of their 40 per cent reserves against their liability for notes in circulation. The effect of this latter provision was to increase the reserve ratio of the System without, however, changing its ultimate potential lending power. Prior to the June, 1917, amendment, only gold held by the reserve bank was counted in computing the reserve ratio against deposit and note liabilities, and gold held by the agent as collateral for notes did not appear in the reserve bank statement. While the gold in the hands of the reserve agents was not counted in computing the reserve ratio, it remained in the Reserve System, and in times of increased demand for credit, the reserve banks could directly or indirectly substitute for gold with the agents the additional eligible paper which would come to them as a result of the greater demand for reserve accommodation, thus increasing their gold holdings available as reserves against deposit and note liabilities. In actual fact, therefore, the changes in the use of gold brought about by the June, 1917, amendments, while simplifying the procedure within the Reserve System, did not change in any essential respect the ability of the System to meet increased demands for credit or for currency. The procedure of the System in exchanging federal reserve notes for gold was merely made simpler and more direct, and the reserve ratio was made to reflect the real reserve position of the System, while prior to the amendment it had reflected the position of the reserve banks alone and had left out of account the gold held by the agents.”

This statement seems thoroughly acceptable. It may be remarked here, however, that reserve officials seem to have been somewhat responsible for the widespread misinterpretations these amendments occasioned. Earlier explanations were not nearly so satisfactory.

The same issue of the Federal Reserve Bulletin clears up the matter of open market collateral for reserve notes as follows:

“Other amendments to the note-issue provisions of the Federal Reserve Act center around the eligibility of paper as collateral for the issue of federal reserve notes. As originally enacted, the law restricted this collateral to paper rediscounted by member banks. The request for amendments to these provisions grew out of the administrative experiences of the Reserve System during the first years of operation and was submitted to Congress for the first time in the annual report for the year 1915. The provisions of the original Act limiting note issues to rediscounted commercial paper, though intended to limit the issue of federal reserve notes, were found to be of little value for that purpose, for the reason that the volume of paper eligible for rediscount in the hands of member banks was at all times greatly in excess of their need for reserve bank accommodation. While provisions covering eligibility of paper did not act as a limitation on the issue of federal reserve notes, the operations of the System demonstrated that the elasticity of the currency was based not on the nature of the collateral back of federal reserve notes, but on the banking habits of the people and on the character of our banking structure under the Federal Reserve System. From the beginning the currency proved to be elastic under the Federal Reserve System and notes in circulation returned to the System as soon as they were no longer required by the public.

“Under these circumstances the Federal Reserve Board recommended certain changes in the provisions of the Reserve Act relating to collateral against federal reserve notes in order to bring them more into line with the purposes underlying the creation of the Reserve System. One of the duties of the Reserve System under the original act was the development of a market for acceptances or bills in this country in order to facilitate the financing of our foreign trade. To this end, national banks were permitted to accept and purchase bills and the federal reserve banks were permitted to rediscount such paper or buy it in the open market, but only rediscounted acceptances were eligible for the issue of federal reserve notes. This limitation was considered to be an unnecessary hindrance to the development of the bill market, and in September, 1918, the act was amended to permit purchased as well as rediscounted acceptances to be used as collateral for federal reserve notes.

“Acceptances are the most liquid form of paper in our credit system and arise as directly as any other kind out of commercial transactions. While purchased acceptances differ from discounts in that the reserve banks can buy them on their own initiative, without waiting for a demand for reserve bank credit to originate with the member banks, as a matter of fact, acceptances are purchased by the reserve banks almost entirely on the initiative of the sellers, the re-

serve banks merely standing ready to buy at a given rate all eligible acceptances offered for sale. In view of these facts, and the further fact that the elasticity of the currency depends, as shown by the foregoing discussion, upon factors entirely independent of the nature of the collateral back of note issues, there appeared to be no good reason for the exclusion of purchased acceptances from the collateral for federal reserve notes."

So far as the Reserve System as a whole is concerned, no serious impairment of lending power need have resulted in recent years from compelling the substitution of gold for open market acceptances as the collateral for note issues and from requiring that this gold be not counted as a part of the reserve for notes and deposits. To illustrate by the figures of March 23, 1927, total holdings of bills bought in the open market, the largest part of which were lodged with reserve agents as note cover, amounted to \$231,259,000.

Requiring the reserve banks to impound an equivalent amount of gold behind the notes would at that time have reduced their general reserve by an equivalent amount with the result that the System's reserve ratio would have fallen from 79 to 73 per cent. But, with some reserve banks the impairment of reserve ratios would have been greater. The Dallas bank, for instance, did not then hold a large portfolio of rediscounted bills. In order to maintain earning assets at a reasonable figure, it held on this date almost three times as much open market as rediscounted paper. To impound gold in the reserve agent's hands to the amount of its acceptance holdings would have resulted in the reduction of its ratio from 75 to 64 per cent.

With the huge surplus reserves then existing, such a reduction of reserve ratios, even for Dallas, would have created no serious difficulty. But, as events since that date have demonstrated, there can be no certainty that in the future surplus gold holdings will remain so large. The gold outflow following the autumn of 1927, while not reducing reserve ratios to a point close to the legal minima, did much to dissipate the common impression that the system's gold holdings were far in excess of future requirements. The Reserve System should be fortified to sustain the strain of possible gold exports from this country. If such a gold movement should occur, the New York bank, and to a lesser degree, reserve banks operating in other money centers, would have a remedy for the reserve impairments resulting from these suggested note-issue amendments. These reserve banks, by selling open market bills and securities, could mop up funds in the money market and thereby tend to compel their member banks to engage in more rediscounting. Banks deprived of funds by the market's

purchases from the reserve banks, would find it necessary to discount further in order to restore reserve deficiencies. The rediscounted bills thus acquired by the reserve banks operating in the money centers could be deposited with reserve agents to secure federal reserve notes, leaving the reserve banks' gold free to maintain the general reserves.

By sales of open market paper, however, the Dallas bank would be in no such strategic position to force more rediscounting in its district. In its district there is no ready and broad market for United States securities and bank acceptances. Such sales must be made largely in New York and other money centers, at which points these sales would tend to increase the volume of rediscounts. But heavier rediscounting in New York would not provide Dallas with more note issue collateral. In the same way, though possibly to a lesser extent, other interior reserve banks, such as Kansas City, Minneapolis and Richmond, would be similarly handicapped.

It therefore appears that the burden of a return to earlier methods of note issuance would be the most onerous for the smaller interior reserve banks. So far as note issues and reserves are concerned, the encouragement of the acceptance market in New York and the ability to utilize bills there purchased as collateral for reserve notes is of the greatest service to banks operating away from the money centers.

Indeed, if further changes in the required security for reserve notes are to be written into the Act, it would appear the part of wisdom to relax rather than to increase their severity. It is by no means clear that it would not be desirable to waive all provisions relating to their security, except the 40 per cent gold cover. The future may bring a reduction in the volume of other currency elements, such as the national bank notes, and this reduction may necessitate greater reliance upon federal reserve issues. Some of the other currency developments in prospect may not have the result of providing the reserve banks with the necessary volume of paper eligible for note issue collateral. The locking up of a hundred per cent gold cover for a portion of the notes, which would be necessitated by the lack of such paper collateral, may impair reserve ratios to an undesirable extent, or limit the ability to issue a satisfactory volume of currency.

IV. The Relationship of the Machinery of Note Issuance to Reserve Ratios

Attention here is directed to a proposal that federal reserve notes should be issued in such a way that an increase in their volume would result in a rapid reduction in reserve ratios and thus indicate more quickly the need for corrective action on the part of the reserve banks. This proposal received no attention in the Committee Report.

Another Proposal

A radically dissimilar suggestion for revising the collateral of reserve issues was propounded a few years ago by a member of the Federal Reserve Board. As indicated earlier, he has pointed out that at present the creation of additional federal reserve notes to supply the public's currency demands does not draw down federal reserve ratios quickly. This is due to the fact that the legal minimum for notes is 40 per cent. At the minimum, accordingly, a dollar of gold in the reserves would permit the issuance of two and a half dollars of notes. Accordingly, he has suggested that certain changes be made in the administration of reserves which would have the effect of compelling new issues of notes to be backed by their equivalent in gold. Under this plan, new note creations would lessen reserve ratios more rapidly than at present, and currency expansion could not proceed far without reducing quickly the percentage of reserves to deposits. Accordingly, the reserve ratios would become more sensitive indicators of the credit situation, and they could be employed more effectively as guides to discount policy.

It is interesting to find that this analysis of note issues insists that present difficulties are due to their excessive rather than to their deficient expansibility. It does not seem feasible, however, to recommend the acceptance of this proposal which, as a matter of fact, has not been strenuously urged in late years. It appears to us that to achieve the greatest progress we must get farther away from the belief that in these days any such mechanistic principle of reserve bank control as the observance of reserve ratios can uniformly be relied upon. Credit policy must be formulated also upon the analysis of fundamental economic requirements and, although direction of movement of reserve ratios may be highly significant, there is no easy principle to observe in determining just when and to what extent. If reserve ratios are always to be obediently observed, the proposal could be argued with more fervor. But it seems that greatest progress is to be achieved by regarding the movement of reserve ratios as only one of the important criteria of credit policy.

The general conclusion of this investigation is accordingly that mere mechanical arrangements as to note issues should be viewed from the standpoint of their adaptability to general credit policy and that in this respect the present machinery is on the whole satisfactory, at least for immediate requirements. On the other hand, future changes may indicate that present arrangements are too restrictive and may require even further liberalization.

V. Federal Reserve Bank Notes

In the Committee Report problems relating to federal reserve bank notes are not discussed.

The problems relating to federal reserve bank notes are not very serious at the present time. They now represent an insignificant item in the currency system, amounting to less than three and a half millions of dollars on October 31, 1929. Since the first of July, 1924, all reserve banks have extinguished their liability on outstanding federal reserve bank notes by depositing lawful money with the United States Treasury to provide for their retirement. Their gradual elimination will subserve the useful purpose of simplifying our monetary system. The original reason for their existence has disappeared. Their creation was due solely to the possibility that national banks might desire to dispose of large quantities of bonds possessing the circulation privilege. Accordingly, it was provided that the Federal Reserve Board might require federal reserve banks to purchase annually for twenty years \$25,000,000 of these bonds. For fear that the money market might not be able to sustain such a contraction, provision was made that these bonds might form the basis of an issue of federal reserve bank notes similar to the retired national bank notes.

The Act provided, however, that the federal reserve banks should be permitted to issue federal reserve bank notes only to the amount of the par value of the bonds thus acquired. Since the circulation privilege bonds have held above par, the Reserve Board apparently became reluctant to insist that the reserve banks purchase the maximum quotas of \$25,000,000 annually. National banks also displayed no great zeal to sell them.

In late years, national banks seem to have been more alarmed at the prospects of the loss of their note issue privileges than anxious to retire their issues. Furthermore, \$118,489,000 of bonds possessing the circula-

tion privilege came due February 1, 1925, compelling a contraction of about \$65,000,000 of notes. Future occasion for the issue of more reserve bank notes has become more remote.

If, however, present issues of national bank notes should be retired, federal reserve notes could be issued to take their place. Under the conditions of 1913, this alternative could not be upheld so confidently. Federal reserve notes, under the Act, could be issued only against rediscounted paper, and it was by no means certain that sufficient rediscounted paper would be held by reserve banks to support steadily an amount of reserve notes equal to the approximately \$700,000,000 of national bank notes then outstanding. But, under the more liberal arrangements adopted in 1917, federal reserve notes can now be issued against gold or acceptances purchased in the open market. In other words, federal reserve notes can now meet the original needs which it was anticipated might require federal reserve bank notes.

Some insist that dangers of the future creation of circulation privilege bond issues should be heeded. They point out that in the desire to reduce the interest on the public debt Congress may succumb to the temptation of refunding existing high interest bonds into lower interest bonds possessing the circulation privilege. Accordingly, it is insisted that legislation should now be enacted prohibiting the future issuance of reserve bank notes. To us it is not clear that if Congress should so desire to act, it would not be just as easy to recreate legislation permitting bond secured notes as to take advantage of legislation now unobserved.

Accordingly, this committee approves of the administrative arrangements according to which federal reserve bank notes are being gradually retired.

VI. National Bank Notes

In the Committee Report the problems relating to the future treatment of national bank notes are not discussed.

As indicated in the previous section, national banks have been concerned over the prospects of the loss of their circulation privileges. During the year 1925 the maturing of the 4 per cents brought about a reduction of more than \$65,000,000 in the amount outstanding in circulation. National bank notes are now issued to practically the full amount of United States Government bonds conveying the circulation privilege. It

is largely the smaller national banks which are most jealous of their circulating privileges, and many of them regard the power to emit notes as affording the most distinctive differentiation between national banks, which form the bulwark of the Federal Reserve System, and state institutions. In this it should be kept in mind that the organization of the Federal Reserve System itself has tended to put state and national institutions on the same basis. Membership in the Federal Reserve System affords state institutions much of the prestige that formerly might have suggested incorporation under national law. In very many respects these small national banks deserve the most considerate treatment. Furthermore, it is possibly true that it is these small institutions which have suffered most as a consequence of the rapid organization of small, easily established, competing state banks.

Although it is difficult to defend the original creation of notes based on government bonds, the present existence of the national bank notes occasions no great concern. They have become an integral part of the general circulation and at present constitute less than one-seventh of the total money in circulation. A permanent solution of the matter has been postponed by an announcement made December 12, 1929, by the Secretary of the Treasury, that the Treasury Department would not exercise its option of calling for redemption the 2 per cent consols of 1930. The Secretary indicated an intention of asking Congress for a restatement of legislative policy as to the retirement of national bank notes. Arrangements regarding the \$75,000,000 2 per cent Panama Canal bonds of 1936 and 1938 can be deferred until later to accord with such policy.

It has often been suggested that permanent provision should be made according to which the volume of national bank notes should be permanently fixed at some such definite figure as \$600,000,000, the approximate amount now outstanding. It cannot, however, be foreseen at the present time just what changes may occur in other elements of the currency, as, for instance, the greenbacks, and until the status of these other elements is more definitely known it would be undesirable to make final provision for the national bank notes.

If, on the other hand, future changes should involve any considerable reduction in the circulation of the national bank currency, there may be increased need of liberalizing the present provisions relating to the issue of federal reserve notes.



VII

Membership of the Reserve System

I. Statistics of Membership in the Federal Reserve System

In order to determine the stability of the present membership situation and the intensity of the need for a larger membership in the Reserve System, it is necessary to present certain figures bearing upon the relative number and resources of members and non-members. Such figures were not included in the Committee Report.

To determine what alterations, if any, should be recommended in membership requirements, necessitates an understanding of the relative numbers and resources of our various classes of banking institutions. To present in broad outline the statistical information on this matter, the following tables are included.

Table I gives figures regarding the number of national banks, state bank members, and total membership in the Federal Reserve System from 1915 to the close of 1928.

These figures show both for national and state banks a continuous increase until 1922. Since 1922, national banks have fallen off by 591 and state banks by 431, a total loss of 1,022. Lest, however, this loss in membership be interpreted to exaggerate actual withdrawals, it must be kept in mind that mergers may reduce the number of banks without lessening resources. This fact will be commented upon later.

TABLE I—TOTAL NUMBER OF MEMBER BANKS,
BY CLASSES, AT CLOSE OF EACH YEAR

Year	National banks	State banks	National and State banks
1915	7,600	31	7,634
1916	7,577	37	7,614
1917	7,657	253	7,910
1918	7,762	930	8,692
1919	7,885	1,181	9,066
1920	8,126	1,481	9,606
1921	8,165	1,614	9,779
1922	8,220	1,639	9,859
1923	8,179	1,595	9,774
1924	8,043	1,544	9,587
1925	8,048	1,441	9,489
1926	7,906	1,354	9,260
1927	7,759	1,275	9,034
1928	7,629	1,208	8,837

To secure some indication of the extent to which the recent loss in membership may have affected the strength of the Federal Reserve System, Table II is next presented, covering the last ten years. Because of the continuous increase in membership in the earlier years, it will no longer be necessary to offer figures prior to 1919.

In this table a diminution in member banks' resources is recorded in only two years, 1920 and 1921. In these years resources were affected both by the reduction in the physical volume of the nation's business and by the great decline in prices.

TABLE II—TOTAL RESOURCES OF MEMBER BANKS
AT CLOSE OF EACH YEAR

In millions of dollars

Year	National banks	State banks	National and State banks
1919.....	22,702	9,913	32,616
1920.....	21,357	9,826	31,184
1921.....	19,411	9,904	29,316
1922.....	21,965	11,917	35,882
1923.....	22,395	12,843	35,238
1924.....	24,368	14,617	38,986
1925.....	25,839	15,585	41,425
1926.....	25,869	16,360	42,029
1927.....	28,148	16,739	44,888
1928.....	30,573	18,362	48,935

In the same period, however, changes have taken place in the number and resources of non-member banks. To determine whether the relative strength of the Federal Reserve System is being maintained, Table III is next presented. This table includes member and non-member banks, concerning whose condition reports are made to the Comptroller of the Currency.

TABLE III—NUMBER AND RESOURCES OF ALL BANKS REPORTING TO THE COMPTROLLER OF THE CURRENCY

Resources in millions of dollars

June 30	Number of banks	Total resources
1920.....	30,139	53,079
1921.....	30,912	49,671
1922.....	30,389	50,425
1923.....	30,178	54,034
1924.....	29,348	57,144
1925.....	28,841	62,057
1926.....	28,146	64,893
1927.....	27,061	68,132
1928.....	26,213	71,574

Although, since 1921, the number of reporting banks has been reduced, total resources have grown consistently. From 1920 to 1928, the gain for member institutions was almost as great as the gain experienced by all banks.

To permit closer comparisons, Table IV presents statistics relating solely to non-member institutions.

TABLE IV—NUMBER AND RESOURCES OF NON-MEMBERS

Resources in millions of dollars

June 30	Number of banks	Total resources
1920.....	20,740	20,885
1921.....	21,167	20,032
1922.....	20,497	18,702
1923.....	20,322	20,239
1924.....	19,698	21,367
1925.....	19,303	22,952
1926.....	18,773	24,048
1927.....	17,962	25,322
1928.....	17,284	26,483

As regards the number of banks, these and preceding figures do not display violently divergent movement between members and non-members. From 1920 to 1928, the number of members has been reduced by 769; non-members, 3,456. There were many more non-members, however, which could cease their corporate life. Members reached their peak in 1922; non-members in 1921.

In resources, however, recent changes have been entirely in favor of member institutions. From 1920 to 1928, members increased their resources

nearly 18 billions, while non-members were gaining about 5.6 billions. Since resources of members exceeded those of non-members, a comparison of the average resources of member and non-member institutions is presented in Table V.

TABLE V—AVERAGE RESOURCES OF MEMBERS AND NON-MEMBERS

In thousands of dollars

June 30	Average resources of members	Average resources of non-members
1920.....	3,425	1,006
1921.....	3,041	946
1922.....	3,207	912
1923.....	3,428	995
1924.....	3,707	1,084
1925.....	4,099	1,189
1926.....	4,356	1,321
1927.....	4,704	1,404
1928.....	5,050	1,532

The most striking fact displayed by these figures is that, from 1920 to 1928, the gain in the average resources of member banks was over three times as great as the gain in the average resources of non-member banks. To determine whether this is to be attributed to a tendency for the larger state institutions to take out membership, Table VI is next presented. This table compares the average resources of the national and state member banks.

TABLE VI—AVERAGE RESOURCES OF NATIONAL AND STATE MEMBER BANKS

In thousands of dollars

At close of—	Average resources of national members	Average resources of state members
1919.....	2,879	8,393
1920.....	2,618	6,634
1921.....	2,378	6,136
1922.....	2,672	7,270
1923.....	2,738	8,052
1924.....	3,029	9,466
1925.....	3,210	10,815
1926.....	3,246	12,082
1927.....	3,614	13,129
1928.....	4,007	15,200

From 1920 to 1928 the average national member gained more than 1.3 million dollars. The average state member in the same period gained over eight and a half millions.

Regarding the effect that the entrance into membership of state banks may have had upon the relationships between state members and state non-members, Table VII is next offered.

TABLE VII—PERCENTAGE OF NUMBER OF STATE MEMBER BANKS TO TOTAL REPORTING STATE BANKS

<i>June 30</i>	<i>Percentage</i>
1920.....	6.2
1921.....	7.0
1922.....	7.4
1923.....	7.3
1924.....	7.3
1925.....	7.0
1926.....	6.8
1927.....	6.7
1928.....	6.6

About the same percentage of state banks have been members of the System during each year of the 1920-1928 period.

In resources, however, the comparison is much more favorable for the member state banks. The seven per cent of all state banks which are members possess nearly forty per cent of total resources of all state banks. This is brought out by Table VIII.

TABLE VIII—PERCENTAGE OF TOTAL RESOURCES OF STATE MEMBER BANKS TO TOTAL REPORTING STATE BANKS

<i>June 30</i>	<i>Percentage</i>
1920.....	32
1921.....	33
1922.....	37
1923.....	37
1924.....	38
1925.....	37
1926.....	39
1927.....	39
1928.....	38

Table IX attempts to show the importance in the Reserve System, from the standpoint of resources, of the national banks; their relative position has not altered significantly from 1920 to 1928.

TABLE IX—PERCENTAGE OF TOTAL RESOURCES OF ALL NATIONAL BANKS TO TOTAL RESOURCES OF ALL BANKS REPORTING TO THE COMPTROLLER OF THE CURRENCY

<i>June 30</i>	<i>Percentage</i>
1920.....	41
1921.....	39
1922.....	40
1923.....	39
1924.....	39
1925.....	39
1926.....	39
1927.....	39
1928.....	39

To indicate the relative importance of members and non-members, Table X is next submitted. At the close of 1928 a little more than three-fifths of the total resources of the country were represented in the Federal Reserve System. Furthermore, the eight-year period displays a slight gain in percentage for the members.

TABLE X—PERCENTAGE OF TOTAL RESOURCES OF ALL MEMBER BANKS TO TOTAL RESOURCES OF ALL BANKS REPORTING TO THE COMPTROLLER OF THE CURRENCY.

<i>June 30</i>	<i>Percentage</i>
1920.....	60
1921.....	59
1922.....	62
1923.....	62
1924.....	62
1925.....	63
1926.....	62
1927.....	62
1928.....	63

These statistics indicate that for the period 1920-1928:

1. There has been no alarming loss in national bank membership. (Table I.)
2. The loss in state bank membership has been proportionately greater. (Table I.)
3. In volume of resources, however, state bank members have gained. (Table II.)
4. In total resources, member state banks are more than holding their own with non-members. (Table VIII.)
5. The average member institution is nearly three and a half times as large as the average non-member. (Table V.)
6. The average state member bank is almost four times as large as the average national bank. (Table VI.)

7. National banks represented about the same portion of the country's total banking resources in 1928 as in 1920. (Table IX.)

8. Member banks represented a larger portion of the nation's banking resources in 1928 than in 1920. (Table X.)

The general conclusion that the membership problem has not yet become serious is strengthened by detailed analysis of the factors which led to a change in the number of national or non-member state banks. Since mergers diminish the total number of banks, figures comparing the number of members with non-members may overstate losses. Thus, during 1928, the net decrease in number of members was 197; 192 of this 197, however, could be accounted for by mergers, suspensions, and voluntary liquidations. In further support of this inference is the fact that, despite the loss in numbers, member banks have experienced a relative gain in total resources since 1920.

II. The Advantages of a Larger Membership in the Federal Reserve System

The following summary of the advantages to be gained by increasing membership in the Federal Reserve System is substantially similar to that contained in the Committee Report. It is reproduced here in slightly different form, primarily to maintain continuity of thought in this discussion.

With these facts in mind we are in a position to consider the intensity of the need for a larger membership in the Reserve System. An increased number of members might be desirable to:

- (a) Enlarge the resources of the reserve banks;
- (b) Enable reserve credit to be supplied more adequately to particular localities;
- (c) Remove dangers which might result from future withdrawals from membership;
- (d) Increase the power of the reserve banks to encourage sound methods of credit granting by member banks.

So far as the resources of the reserve banks are concerned, a larger membership does not seem to be required. The lending powers of the reserve banks now exceed any demand of immediate anticipation, and until recently at least the principal worries have been due rather to excessive than to deficient reserves. It is, no doubt, also true that popular thought has greatly exaggerated the size necessary for an effective institution that

**Larger
Membership
Not Required
to Strengthen
the Resources
of the Reserve
Banks**

operates in the field of central banking. Judged by American standards the Bank of England is not an extremely large bank. Its influence has been largely derived from the fact that its directorate has come to base its policies upon the requirements of the general credit situation and that it husbands its reserves from this point of view. The withdrawal from or the injection into the credit structure of funds by such an institution tends to exercise an influence upon the money market far exceeding the relative strength and resources of the central bank.

Present Membership Permits an Adequate Amount of Credit to be Extended to Various Communities

Neither does an increased membership seem to be required in order to enable the reserve banks to serve various communities more effectively. By means of correspondent bank connections, credit emanating from reserve banks may be directly diffused to non-member institutions. By means also of indirect processes, such as by the public's depositing of funds elsewhere obtained, credit released in one locality tends to flow toward the regions where the demand is most intense. "The rivulets of credit, sluggish though they be, carry their deposits eventually to the deeper channels."

Danger of Future Withdrawals

An increase in membership, however, if obtained by sound devices, would be desirable to guarantee the resources of the reserve banks, and their power to serve various communities, against future withdrawals. As stated in the Committee Report: "It is unlikely that for any long period of time membership in the Reserve System will be stationary. Either the Reserve System will be adjudged to be so necessary and salutary that its influence will increase, or its prestige must gradually weaken. A continuous, even though slow, drift away from membership would develop anxieties on the part of the reserve administration and tend to bring about a general lowering of standards."

Opportunities of Encouraging Sounder Methods of Bank Administration Increased by Enlarged Membership

A much more important need of increasing membership is to be found, however, in the opportunities afforded to encourage sound methods of credit administration by member institutions. This phase has been discussed in the Auxiliary Statement on the Rediscount Operations of the Reserve Banks. Therein it was pointed out that the importance of rediscount activities does not reside so much in the field of adjusting the total volume of reserve credit as in making observance of the accepted standards of safe banking the primary test in the extension of rediscount accommodations.

It would accordingly appear that, where concessions to the demands of banks would not involve any impairment of safety, these concessions should be made in the interest of increasing and maintaining membership. Our next task is to determine what these concessions might be.

III. Recommendations for Increasing the Membership of the Reserve System

In this section, greater effort is made to find a plan whereby interest might be paid on reserve balances than in the Committee Report. Success does not result from these efforts. While recommending a greater dividend participation in years of ample earnings of the reserve banks, the merits of the franchise tax are also pointed out in this section.

In the Auxiliary Statement on Reserves for Reserve and Member Banks the principle of several suggestions for revising reserve computations was approved. These included permission to deduct vault money from gross deposits and to subtract "due from other banks" from gross demand deposits instead of from "due on demand to other banks." But the main bone of contention is the payment by reserve banks of interest on reserve balances, and it is difficult to devise a plan by which this concession might safely be made.

**Changes in
Methods of
Computing
Reserves**

While rejecting the principle of paying interest on reserve balances, a number of plans designed to provide greater returns to member banks than at present have, however, been considered. One suggestion was that, after reserve banks have built up their surplus to an amount equal to twice their capital stock and to an amount at least equal to 20 per cent of their total deposit liabilities, profits of the reserve banks might be distributed in proportion to member banks' average reserve balances. Such distribution, it was proposed, should not exceed $1\frac{1}{4}$ per cent of the average reserve account required or actually carried during the year, whichever might be the smaller. It was to be provided further that this amount should not be cumulative from year to year.

**Sharing in
the Profits
of the Reserve
Banks**

Careful examination of the figures showed, however, that this plan, applied to the Reserve System as a whole, would not bring immediate benefit to member banks. At the end of 1926 the application to surplus of all earnings after dividends would still have left surplus 22 million dollars short of equaling twice the paid capital. In order that the combined capital and surplus should equal 20 per cent of the total deposits, it would have been necessary for the System to have earned in 1926, 161 million more than it actually did earn. According to the plan discussed, franchise payments to the government would be suspended until the reserve banks' capital and surplus accounts were built up to the stipulated amounts. Waiving these requirements, the application of all surplus earnings after dividends in 1926 would have enabled the Reserve System to pay $\frac{1}{2}$

per cent on reserve deposits. To offer any reasonable rate on reserve balances would require the reserve banks to enlarge their open market purchases enormously. Under practically any conditions the payment of interest on balances would be inconsistent for a system charged with the responsibility of regulating the total volume of credit from the standpoint of contributing to long-time business stability.

Others have suggested that the machinery of the Reserve System should be altered in such a way that interest on balances could be paid. The specific proposal here is that by returning member banks' capital stock, earnings would no longer have to be employed for dividends and that the amount thus saved could be applied as interest on balances. But again, the figures show the impracticability of the suggestions. June 29, 1929, for instance, member banks' reserve account amounted to 2,355 millions of dollars. On the same date paid in capital totaled 158.6 millions. Six per cent of 158.6 millions is 9.5 millions. This sum would constitute only four-tenths of one per cent of total reserve accounts. The return of member banks' capital would furthermore provide member banks with funds which could be applied to the reduction of rediscount indebtedness and thereby render it more difficult for the reserve banks to earn.

Closely allied to the question of paying interest on balances is that of distributing, when earnings permit, larger dividends to member banks. Frequently, proposals with this end in view contemplate divisions pro-rated according to member banks' reserve balances. This method of distributing profits has been suggested sometimes for the purpose of making it apparent that the reserve banks are going as far as they can to meet the demand for interest on balances. But as a method of determining each member bank's share it does not appear to be so equitable as distributions according to member banks' stock holdings in the reserve banks. Reserve balances may be built up by rediscounting and it does not seem proper to reward most highly the heaviest rediscounters.

Waiving the question of method, however, there is much to argue in behalf of the principle of modifying the present provisions of the law which eventually may make the government virtually the sole residual claimant to reserve banks' surplus earnings. So far as the problem of altering the mass of reserve credit according to the fundamental requirements of business is concerned, the reserve banks are tending to develop their open market powers. In recent years a rather pronounced disinclination of member banks to engage in permanent rediscounting has been developing and has been encouraged by the reserve authorities. It is being asserted with increasing definiteness that member banks should

normally utilize only their own resources and should confine their rediscount application to seasonal or emergency requirements. Rediscount rate changes are losing much of their significance as a means of altering the general volume of reserve credit. For this purpose, open market operations must be emphasized. To the extent that their own earnings are reduced by this competition of reserve banks, member banks may argue with considerable merit that they should share in the surplus profits that open market dealings may have earned.

In the beginning of reserve operation it was no doubt desirable for the lawmakers to establish the principle that the reserve banks should not be managed for profit-making purposes. But with the experience that has been gained there is less danger that reserve banks will attempt to adapt their credit policies to earnings' requirements. The time may now have arrived when the definite limitation of dividends to 6 per cent of the stock in the reserve banks is no longer necessary.

In defense of the present scheme of distributing earnings it may be argued, however, that paying residual profits to the government as a franchise tax possesses the merit of equalizing dividends as between different districts. If the good earners among the reserve banks should distribute extra dividends to their stockholders, objection might arise in districts wherein no such surplus distributions could be made. In past operations member banks in Dallas and St. Louis, perhaps, would have argued that they were unfairly treated with respect to member banks in New York and Boston. To attempt to avoid such controversy a pool of surplus earnings might be created from which all member banks, regardless of their district, might derive the same surplus dividend percentages on stock of the reserve banks. But this arrangement would probably serve only to reverse the field of complaint. Member banks in New York and Boston would challenge the fairness of distributing in Dallas and St. Louis earnings derived by utilizing their capital and the reserve contributions of their own reserve banks.

The Practical
Value of
Franchise
Payments

It is further contended that the benefits of enlarged dividend participations would be very limited for any single bank. In becoming a member, a bank with a capital and surplus of one hundred thousand dollars is obliged to purchase three thousand dollars of stock in a reserve bank. An extra three per cent dividend on this sum would amount to only ninety dollars. It is therefore insisted that prospects of receiving a few extra dollars of dividends would in itself do little to arouse an increased interest in membership.

The Value of
Larger
Dividend
Participation

However this may be, it is the committee's opinion that, even though

they be of limited financial importance, the advantages of asserting definitely the rights of stockholders outweigh any difficulties which might arise on account of the distribution of larger dividends in some districts than in others. The right to participate in earnings is usually regarded as a prerogative of stock-ownership. To assert this principle in the case of the reserve banks might accomplish something in the direction of convincing member banks that membership in the System is a privilege and not entirely an instrument of semi-public regulation. It would be well, therefore, if practicable means could be devised, to distribute to member banks a portion of the net profits of reserve banks, after present surplus and dividend requirements have been met, rather than to pay all of them to the government as a franchise tax.

But the principal hope of increasing membership must be reposed in endeavoring to conduct the operations of the reserve banks in such a way that the solvency records of member banks will be conspicuously better than those of non-members. In granting rediscount applications, the reserve banks should pay primary heed to the methods and quality of bank management. As a matter of general policy, rediscount applications should not be granted merely because the reserve bank has assured itself of the adequacy of the collateral tendered. It should convince itself that the effect of the granting of the application would be in the interest of the bank's depositors and of the community it serves. With this procedure firmly established, the preferences of the public should insure a gradual growth in the number of banks which provide the resources and subscribe to the standards upheld by the reserve banks.

IV. Voluntary and Compulsory Membership in the Federal Reserve System

In the Committee Report the membership problem was discussed from the standpoint of the total membership only, and no attempt was made to distinguish between the banks which must belong to the System, the national banks, and the state institutions which may apply, according to their own discretion, for membership. In the following section the possibilities and dangers of an excessive withdrawal of banks from the National System are briefly discussed.

All this relates to the total membership in the Reserve System. Much of the present concern, however, is based upon the distinction between

banks whose membership is compulsory and those whose membership is merely voluntary. In the opinion of many it is most essential that national banks become not less important, because with membership and resources represented predominantly by state institutions, threats to withdraw would seem to carry greater weight. As it is, the average state bank member is almost four times as large as the average national bank. On account of their large size, the small number of state institutions may come to exert a disproportionately great influence upon the management of the System.

Table II does show that since 1919 total resources of national banks have increased less than eight billion dollars, while member state bank resources have enlarged by more than eight billions of dollars. It is also asserted that in this period the national banking system held together as well as it did only by virtue of certain temporary banking conditions. In his testimony before the Congressional Committee's Inquiry on Membership in 1923, Governor Crissinger expressed the opinion that had it not been for the unfortunate results of compulsory guarantee systems in several states, withdrawals from the National System would have been much greater. He also contended that in certain other states tendencies to incorporate under state charters had been temporarily discouraged by bank failures resulting from inadequate supervision. These conditions would not permanently hold, however, and so Mr. Crissinger concluded that the compulsory and assured membership of the Reserve System is none too firmly established.

These remarks, however, were made in 1923, since which date recent legislation has endeavored to remove some of the handicaps under which national banks were believed to be laboring. By the terms of the McFadden-Pepper Act national banks are given certain intra-city branch bank powers, their charters have been indeterminately extended, federal reserve membership is denied future created state-wide branch systems, five-year city real estate mortgage loans are permitted national banks, definite authorization is given to certain of their investment security dealings, and the loan restrictions of section 5200 have been revised. Since the passage of the McFadden-Pepper Act, moreover, there seems to have been a rather marked tendency of banks in some states to incorporate under federal charters. Concerning this tendency of state banks to nationalize, the Comptroller of the Currency, on June 18, 1927, was able to remark that less than four months after the passage of the Act the gain in resources to the National System had more than offset the entire losses sustained through the conversion of national banks into state banks during the period preced-

ing the signing of the McFadden-Pepper Act. The nationalization in that year of the country's largest branch system was also a significant development.

Conclusion

Summarizing our conclusions, increased membership in the Reserve System is to be encouraged not so much for the purpose of increasing the resources of the reserve banks as to insure that rediscounting shall proceed along lines contributory to the safety of depositors. To encourage a larger membership concerted drives assisted by such structural alterations as are sound offer little promise. But if membership does come to imply the acceptance of sound banking principles, the System should gradually increase in the number of its tributary institutions.

V. Eligibility Requirements for Membership in the Federal Reserve System

In the Committee Report the desirability of altering the present membership requirements in the Reserve System is not discussed. In the following section, the need of making membership available to a certain class of banks which find difficulty in meeting the capital and surplus requirement is suggested.

The only eligibility requirement of importance provided by the statute specifies a minimum capital and surplus to be possessed by applying banks, according to their location. This provision was adopted from the National Bank Act which was passed at a time when it was intended that national banks be purely commercial banks. For a period the national banks were by far the most important commercial banks in the country. Subsequently state banks developed a large volume of commercial business, and on the other hand, with new grants of power, national banks developed considerable trust, savings and investment business.

Today there are state banks outside the System which do a volume of commercial business greatly exceeding that of some member banks. Since they do engage actively in commercial banking, it would seem that some means should be found of relating them directly to the System. Inasmuch as the Reserve System was expected to function in the entire field of commercial banking, thought might be given to basing membership eligibility in some way upon the volume of commercial business transacted.

The time may not be ripe to discuss the specific means which should be employed to accomplish this end. In the future, it may be desirable to

provide for two classes of members. Full membership might be required of banks whose business is primarily of a commercial character. Banks whose business is mainly of a savings, trust, or investment character might be made eligible for "associate" membership, which would convey more limited rights and necessitate lighter eligibility qualifications. Attention is directed to this suggestion merely for the purpose of preparing the way for the gradual extension of the reserve banks' influence over the whole commercial banking field.



VIII

The Reserve Banks and the Use of Bank Credit by the Security Market

In this statement principles are upheld which are consistent with the conclusions of the Committee Report. The whole subject, however, of the relationship of reserve bank activities to speculative and investment uses of credit is discussed more comprehensively in this statement.

I. The Problem

Security operations constitute an essential part of the country's financing machinery, and it was never expected that in this respect the establishment of the Federal Reserve System would radically change existing customs and practices. At the time of the writing of the Federal Reserve Act it was assumed that corporations would continue to issue securities; that individual investors and banks would make their own decisions regarding the apportionment of their funds among stocks, bonds, and other types of investment; that short-term bank borrowings would frequently be collateralized by government securities or by those of private corporations. No grants of power or prohibitions in the Reserve Act indicate any desire to abolish the use of securities in the investment or other financial activities of banks. And by no means was it held that every utilization of commercial bank credit in security operations was necessarily objectionable.

The Need for a Security Market Recognized

It was recognized, however, that the security markets make demands upon the country's supply of credit, and that security operations might be one of a varied number of elements in the whole financial situation which would make more difficult for the reserve banks the maintenance of the soundness of the general credit structure. Investment and speculative credits, as well as those granted for commercial and agricultural purposes, might be overused and abused. Security operations might lead at times to such extensive demands upon the country's banks that the credit resources available either in the immediate or the more distant future would be impaired. It was also recognized that speculative excesses in the security, as well as in the commodity or other markets, might contribute to the development of unsound business conditions, to ameliorate which might necessitate recourse to the resources of the reserve banks. In other words, the problem was not one of security operations and security credits *per se*, but rather one of security market use of bank credit.

The Use of Bank Credit by the Security Market is of Concern to the Reserve System

II. The Federal Reserve Act and Security Credits

The Reserve Act Provisions

With these facts in mind, we may turn our attention to the provisions of the Federal Reserve Act relating to security credits. So far as member banks' use of their own resources is concerned, the Act did not change the earlier situation in any essential respect. Member bank activities are affected by the Act only when they make use of the resources of the reserve banks. Section 13 of the Reserve Act prohibits, with an exception in favor of government securities, the discount by the reserve banks of notes, drafts, or bills covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities. The open market provisions of Section 14 give the reserve banks no power to purchase securities except those issued by federal, state, and local governmental divisions.

Attempts to Minimize the Influence of the Security Market

But in addition to these specific prohibitions, some of the structural and organization features of the Reserve System indicate the desire of the framers to protect the commercial and agricultural credit system against excessive inroads by security demands. In the districting of the System, the territory allocated to the reserve bank operating in the country's principal security market was restricted. Vesting general supervisory power over the whole System in a body chosen by the President and providing for Board representation on the district directorates had furthermore as one of its purposes the providing of a means of checking any possible subserviency to special interests in the financial and investment centers. The Act also granted acceptance powers to national banks, and the discussions preceding its passage make it clear that it was hoped that in the course of time the bankers bill would begin to compete with the street loan as a medium for the investment of member banks' surplus resources.

Indirect Access to Reserve Bank Credit

While many of the provisions of the Federal Reserve Act indicate the desire to preserve the liquidity of the reserve banks' resources, by confining their assets largely to paper arising out of the supposedly automatically liquidating operations of commerce and agriculture, they also evidence the fear that member banks would utilize resources obtained from the reserve banks to an unduly large extent to meet the demands of the security markets. Inasmuch, however, as credits obtained by discounting short time commercial or agricultural paper might be employed in security operations, it was admitted that much must depend upon the policies and the judgment of the Reserve System's management.

III. The Importance of Security Credits in Federal Reserve History

By recalling the specific and implied restrictions against security credits in the organization of the Reserve System, it might reasonably be surmised that from the very origin of the System the reserve administration would have been especially concerned with the task of confining security credits within reasonable limits. But the history of the actual operation of the System indicates that the problem of controlling security credits was slow to assume major importance. Prior to the spring of 1917, the reserve banks were principally concerned with organization details and immediately thereafter with financial preparation for war. During the war, the main obligation was to assist the Treasury in obtaining funds for war purposes. After the signing of the armistice, security credits became troublesome, but the alarming speculation in securities coincided with a general advance in commodity prices and the interest of the public was directed more sharply to aspects of inflation not related to security speculation.

The Problem
Late in
Developing

But after the recovery from the reaction of 1920 security credits were destined to become the center of controversy regarding the wisdom of federal reserve policies. The marked extent to which member banks tended in the following years to increase the supply of security credits of different types was then clearly revealed by banking statistics. Thus from the close of 1921 to the end of 1928, the investment holdings of reporting member banks increased about 80 per cent, and loans secured by stocks and bonds almost 100 per cent; whereas, in the same period, all "other loans," in which paper primarily commercial is supposed to be most largely represented, expanded by little more than 20 per cent. On January 4, 1922, furthermore, member banks in New York City reported street loans of less than one billion dollars, whereas at the close of 1928 street loans had passed the five billion dollar mark. Abundant evidence thereby became available to support the allegation that in recent years member banks have been tending to give a larger place in their activities to security operations.

Post-war
Growth of
Security
Credits

In making use of such figures as the preceding, many cautions must be observed. Bank statistics do not define asset items in such a way as to permit precise determination of the nature of the transactions for which funds were obtained. To illustrate this point, the proceeds of loans collateralized by stocks and bonds may be employed for purely commercial or

The 1928
Situation

agricultural uses. In opposite fashion, "other" loans, which are not thus collateralized, may contain much that is of a long-time and investment character. Real estate loans of the reporting member banks appear in this item. The supposedly commercial grouping of "other" loans also includes much installment finance paper of relatively longer maturity than ordinary commercial loans. But after making due allowance for such factors, and by comparing the course of prices and the volume of trade in general business and in the security markets, it is evident that there has been a pronounced tendency for banks to enlarge their offerings to the speculative and investment market. It is not surprising, therefore, that by the early part of 1928 security credits had become the most discussed feature of federal reserve policy.

IV. The Difficulty of Determining the Significance of the Security Markets' Use of Bank Credit

Security
Market Closely
Related to
Industrial
Growth

The extent to which the reserve administration should concern itself with speculative and investment operations cannot be determined save by measuring the force of objections which have been made against the growth of security credits. But to weigh the importance of these objections is especially difficult. Security operations are not divorced from and unrelated to other business and industry. Security credits may represent merely one way by which business enterprise obtains credit. Under some conditions it may be desirable for a business enterprise to depend very largely upon short-term bank borrowings. Under other conditions, as, for instance, when long-term money rates display a relative decline, it may be advantageous for business enterprises to rely more largely upon appeals to the capital or investment market. To the extent that new capital issues constitute a desirable means of obtaining funds, a growth of security credits does not indicate a net addition to the credit load resting upon the country's banks. It may indicate only a substitute method of obtaining credit for industry, and figures confined to the growth of security credits then tend to exaggerate the need of corrective action. In other words, it is not possible to state, as may perhaps be true of bank credit in the aggregate, the approximate amount of credit needed specifically to service the security markets.

V. The Liquidity Objection to the Growth of Security Credits

The argument that security investments tend to make member bank assets insufficiently liquid is difficult to state in brief compass. But it relies upon the fact that a very large portion of member bank liabilities are of a "demand" character and that, accordingly, solvency demands that the banks' assets be capable of being speedily transformed into liquid funds on occasions when the demands of bank creditors become pressing. It is only, so it is contended, by investing the bank's resources in the more or less automatically liquidating, short-time operations of trade and commerce that the bank can guarantee its ability to meet any unusual demands of its depositors or other creditors.

The Effect
Upon
Liquidity of
Bank Assets

In recent years many bankers and economists have come to question the validity of this argument. They have pointed out that it seems to apply much more directly to the individual bank than to the banking system as a whole. While any one bank might improve its solvency by refusing to renew its customers' notes, there cannot be any wholesale contraction of credit without precipitating trade disaster. It is rarely to be desired that the banking system as a whole make any sudden reduction in the supply of credit available for the business public.

Effect Upon
a Single
Bank

From the standpoint of the whole banking system, it should be evident that, making allowance for seasonal factors, the general credit supply should ordinarily undergo little in the way of violent change. If this point be accepted, the controversy over liquidity becomes largely a question whether security holdings, as well as customers' notes secured by high-grade stocks and bonds, are not, as a class at least, as easily transferred to other institutions as the non-collaterated notes of commercial borrowers.

Effect Upon
the Whole
Banking
System

In many ways secured paper would seem to be more "shiftable." So far as it consists of high grade bonds, the asset is the object of continuous trading on the country's security exchanges, and means are always available of determining its worth in an impersonal way. It is significant that this point has long been stressed by many of the leading exponents of the liquidity doctrine. In the same passages in which they elaborate the advantages of automatically liquidating, short-time trade paper, they also assert the importance of the "bond" or the "secondary" reserve: thereby admitting that breadth of market should be stressed as well as early maturity and the commercial character of the underlying transaction. To the extent that

"Shiftable"
Paper

**The Bank
Portfolio
Not the
Only Test**

customers' paper is collateraled by stocks and bonds, the customer is in a position to transfer his credit application, in case of necessity, to some other institution which is not obliged to depend upon his financial statement.

The above stated view regarding the merits of the liquidity argument does not hold that, from the standpoint of the economic interests of the entire country, there could be no difference between the effects of short-time commercial and of long-time investment extensions of credit. There may arise occasions, as perhaps after a prolonged trade boom, in which new capital projects should be discriminated against. Such operations, by disbursing wages and other consumers' incomes before the new facilities enlarge the supply of consumers' goods on the market, may exaggerate price inflation tendencies. On the other hand, in periods of trade depression, it may be desirable to stimulate consumers' demands by precisely this process. But the position here upheld is that the proper relationship between investment and commercial credits cannot be determined merely by noting the character of banks' portfolios. It can be answered only by examining a variety of statistical and other evidence, such as the movement of prices, of trade and production, the volume of new construction, and the amount of stocks in dealers' inventories.

VI. The Effect of Member Bank Security Operations Upon the Cost and the Supply of Credit for Commercial Uses

**Can Street Loans
be Permanently
"Absorbed" in
Security
Operations?**

The assertion that funds loaned to security dealers or purchasers by such processes as street loans are withdrawn from other uses, necessitates some analysis. If a bank lends funds to a stock broker, these funds are of course rendered unavailable for the time being to a commercial borrower. But the borrowing broker will not keep the funds idle for any extended period of time. Trained as he is to making the most economical use of his bank credit, he will almost immediately purchase securities on his own account or for that of his client. The funds are now transferred to the seller and all depends upon what the seller does with the funds. The seller may employ the proceeds in a thoroughly commercial operation, in which case funds arising in a security transaction have been transferred to other uses.

Again the proceeds of the street loan might be invested in the new issue of a corporation which has decided that permanent financing would be preferable to short-time bank borrowings. In making this decision the corporation may properly have been motivated by the relative cheapness of the security method of obtaining credit. If now this corporation employs the proceeds in pay-roll expenditures and purchases of machinery and materials the funds will again be redistributed about the country.

It is probable, however, that the business corporation has issued long-time instruments of finance in excess of its immediate requirements. In this case it will have some funds left over which it may employ in the making of a street loan on its own account. But the funds thus loaned will again be turned over in the course of time to the seller of securities and, once so received, may be employed for a thoroughly commercial operation in any part of the country.

The crux of the matter is that by whatever process bank funds get into being, once outstanding, they circulate from one party to another and are always in the process of being redistributed into other uses.

**Continuous
Redistribution**

It might be, however, that the seller of the securities would employ the proceeds of the sale to buy further securities, and the next seller in turn so that the funds are absorbed, at least for the time being, in security uses. If in the meanwhile security prices advance, the mere process of exchanging securities may make some portion of the existing supply of bank credit unavailable for a time for the operations of industry, commerce, and agriculture.

**Temporary
Absorption**

Since, therefore, some operations differ in their results from others, the only means of determining the final distribution of the funds is to examine the statistics of banking deposits in the country. Deposits tell more of the story than street loans or other types of advances against securities. Street loans represent merely the obligations of brokers and their clients and these are usually concentrated in the financial centers. They merely indicate the process or the place in which the borrowing took place. But if the funds thus obtained are made use of elsewhere, they must emerge as deposits of banks located all over the country, where industrial and agricultural operations as well as security transactions are actually being conducted, and disappear in part from the deposit accounts of banks in the security market centers.

**The Bank
Deposit
Test**

By way of illustrating the fact that loans to dealers create deposits which may be distributed all over the country, attention may be directed to 1928 developments, this year having been selected merely at random. During 1928 brokers' loans of reporting member banks in New York City

Security
Turnover
Rapid

increased by about one and a half billions of dollars. If these funds had been entirely absorbed in speculation in that city, deposits of New York City banks would have shown a similar increase. But there was no such increase. During 1928 there was actually a slight decline in the total deposits of New York City member banks.

Another consideration to be taken into account is the fact that a given amount of trading in securities does not tie up nearly as much money as a similar volume of trading in the operations of general industry. In ordinary industrial operations it may be necessary to accumulate bank balances a considerable period of time before accounts are drawn against to discharge debts. Dealers in securities, however, are not accustomed to keeping bank accounts idle for any extended period of time. Commonly a broker does not even borrow until after a purchase has been made for his client. When he does settle for his purchase he will moreover deal only in balances—that is, he will employ his sales to others as an offset against his purchases. A dollar employed in such security operations may have a rapidity of turnover far exceeding that of the dollar used in other business.

But even though funds employed in such security operations do have a high rate of turnover and are always tending to be redistributed over the country, it is not to be denied that under certain conditions security credits may help to develop tight money conditions and higher interest charges for all classes. Abundant funds for security operations may at first operate to stimulate stock and bond prices and consequently capital offerings to the investing public by leading enterprises. Business expansion and the assumption of new projects is likely to be encouraged much more by ability to sell funded securities easily than by the belief that, after the enterprise has been launched, short-term bank credit will be available in liberal quantity. Capital funds, permanently obtained, remove doubts about future financial resources.

Credit
Checks Are
Not Selective

If abundant security credits thus help to encourage a peculiarly rapid expansion of business, the general spirit of optimism in the business community may become so stimulated and may increase credit requirements to such an extent that the reserve administration will after a time find itself confronted with excessive demands. The credit checks which may then have to be imposed may operate to the detriment particularly of business men who operate on small margins of profit and who depend relatively largely upon bank loans, instead of upon capital issues.

Special factors also are involved. Even the absorption of a relatively small amount of money in security transactions may in the course of time exert a considerable influence in the direction of displacing relative rates

of interest and in particular increase the cost of bank credit for commerce and agriculture. Although conservatively managed banking organizations normally regard commerce and agriculture as having the first call for funds, the mere fact that high call rates prevail supplies banks throughout the country with the means of defending rate advances to their regular customers. Added pressure to increase local rates results from the fact that street loans have the advantage over customer loans in the promptness with which funds can be withdrawn.

In conclusion, it may be repeated that the effect of security operations in withdrawing funds permanently from other sources has generally been exaggerated. But this is not to deny the considerable dislocation of money rates of all types which prolonged and increasing stock market activity based upon borrowed funds may after a while induce.

VII. The Concern of the Reserve Banks in Stock Market Values

A third objection to the diversion of any considerable volume of credit to the security markets concerns the effect of the rising prices of securities, attributable perhaps in part to abundant credit, upon other enterprise. Herein it is not contended that the reserve banks bear any responsibility for the accuracy with which a particular quotation expresses underlying values. But it is asserted that if a speculative mania, stimulated in large degree by easy access to bank credit, is permitted to carry the general list to such heights as to threaten, in case of reversal, to destroy confidence, the banking authorities must take cognizance of the situation.

Means may be available for determining the soundness of the general situation which have no direct bearing upon individual stocks or bonds. The security market as a whole may be compared with the general situation in trade, as revealed by aggregate production figures. When it appears that the cycle in trade has been unrelated to price movements in the security field, pessimistic conclusions may be drawn. Besides comparing the speculative cycle with the trade cycle, certain other tests may be employed to indicate the general condition of the security markets, such as relative yields on bond and stock investments, and the relationship of carrying costs to dividend yields.

Such tests, however, even when confined to the general list, are dangerous, and it is normally to be preferred that some other criterion

The Effect
Upon Other
Business and
Industry

of reserve credit policy be employed. The effect of security operations upon the supply and cost of credit available for other uses, as well as their effect upon the total supply of credit, fall more precisely within the special province of central banking regulation than any developments, no matter how spectacular, in particular listings or in the security market as a whole.

VIII. The Relationship of Security Credits to the General Credit Problems of the Reserve Banks

In Section VI of this statement, it was pointed out that credit emerging in connection with security operations are always in process of being redistributed into other uses. Inability to regulate the volume of credit seeping into general uses from security operations may therefore deprive the reserve banks of ability to secure the proper adaptation of the supply of credit in the aggregate within proper limits. Once a speculative boom is well under way ordinary corrective action, such as the imposition of higher rates, may prove unavailing. In a bull market, high interest rates may be withstood for a long period and carrying charges ignored. In anticipation of such conditions it would seem that the reserve banks are within the sphere of their proper jurisdiction when, for the sake of maintaining a firm grip on the credit market as a whole, they act to restrain the demands of a runaway securities market.

IX. The Difficulty of Regulating Security Credits

Mild Measures of Restraint

In a rapidly advancing security market corrective credit action may for a time at least have little discouraging influence upon security trading and may be confined in its effects to establishing costlier credit for other business. The unwillingness to take action which will have the effect of increasing the cost of credit to classes not responsible for the growing credit demand may delay the imposition of effective measures of restraint by the federal reserve administration. The mild corrective measures which may be employed at first may have relatively little effect in abating credit demands because the security markets are likely to become gradually ac-

customed to paying higher rates. The tendency of the reserve banks to proceed over-cautiously in the beginning and thus to prolong the conditions they are seeking to control is further encouraged by the fact that reserve officials and directors cannot help being influenced by the hopes and attitudes of their fellow business men.

In view of the possibility that a credit impasse may thus develop, it has been suggested that the reserve banks require larger power to direct the use of credit than they now possess. In particular it has been suggested from time to time that the reserve banks should be provided with the means of discouraging the offering of member bank credit to the security markets. These suggestions may now be considered.

**Do Reserve
Banks Need
More Power?**

X. Special Powers that Have Been Suggested for the Control of Security-Credit Operations

The special powers now and then advocated to enable the reserve banks better to cope with street demands are the following: First, legal authorization for the reserve banks to take direct charge of the granting of all street loans; second, legal authorization for the reserve banks to impose at their discretion penalty rates of discount upon applications made by banks which have funds outstanding in street loans; third, requiring member banks to invest a certain portion of their assets in bankers acceptances. Each of these suggestions can be here discussed only briefly.

The first suggestion—placing street loans under the direct supervision of the reserve banks—is opposed on the ground that it would place upon the reserve banks too much responsibility for the course of stock-market prices. With such a power in their possession the reserve banks would become a football in politics—buffeted hither and thither by those who believe that security demands for credit have developed excessively, or by those who feel that it would be desirable in the general interest to offer encouragement to the security market. True enough, the adoption of this proposal would give the System a means of accomplishing its object directly. But, after all, European central banks have depended for their continued existence on the fact that their powers are general, rather than special.

**Should Street
Loans be
Placed Under
the Control of
the Reserve
Banks?**

The suggestion that the reserve banks should be permitted to impose a penalty rate of discount upon banks with funds outstanding on the street would be open to the same sort of objection, even though less pronounced

**Penalty
Discount
Rates**

in degree. It assumes that in some way independent of analyses related to the general credit needs of the business community it is possible to determine just how much credit is required for the proper servicing of the security markets. Previously it has been argued that the determination of special credit needs is usually impossible. At times, business corporations depend relatively largely upon bank credit lines. At other times, possibly for good reasons, they make increasing resort to the securities market. Since credit obtained in the security centers may be a substitute for bank credit, the interest of the reserve banks must be in the general mass of credit which is coming into being rather than in the precise method of its origin.

But the most important objections to these suggestions appear to arise in the fact that their acceptance would indicate that the indirect stimulation of security trading—or even of security prices—resulting from the general credit activities of the reserve banks—would never be desirable. In a period of declining business activity, rate reductions and enlarged open-market purchases might not be capable of stimulating commercial borrowing to any significant degree. In such a situation it might be only the security markets which would feel to any considerable extent the effect of the reserve banks' easing measures. Particularly in times of trade inactivity the stimulation of security activity, resulting indirectly from liberal policies by the reserve banks, might be highly desirable. Security activity may at certain stages of the business cycle assist the reserve banks to operate in the general interest.

**Mandatory
Investments
by Member
Banks in
Acceptances**

The suggestion of mandatory investment by member banks in acceptances is, in part at least, an attempt to determine by law the investment policies of member banks. It does not seem at all certain that direct legal measures should be relied upon in order to secure the distribution of member bank credit into the preferred channels. There must be, moreover, somewhere in the credit field a residual market for the investment of surplus funds. It is perhaps better that this residual market should be related to security operations than to any other. Attempts to divert credit into commercial channels by legal decree probably assume a higher measure of elasticity than trade and commerce actually possess. The final result of forcing investments into bills might be merely to create more instability in rates than acceptances now manifest.

XI. Desirable Technique of Federal Reserve Operation in Its Relationship to the Security Markets

In view of the conclusion that special powers should not be granted the reserve banks to enable them to cope with street demands, the problem of regulating the volume of security credit becomes difficult. This difficulty is aggravated when attention is redirected to the fact that when speculative enthusiasm is in full bloom ordinary measures of credit control lose effectiveness. The solution, however, is easy to state, though difficult to realize in practice. In the first place corrective measures when instituted should be vigorous and not half-hearted. In the second place measures of restraint should not be long delayed.

The general impotency of mild measures of restraint is to be attributed to the fact that a succession of small rate increases—if this be the weapon of control—may not test out the market thoroughly. As money rates gradually adjust themselves to higher levels the stock market becomes educated, so to speak, to the higher price of credit and out of future prospects may decide to withstand the increased carrying costs. What is usually required in order to force consideration of long-time intrinsic values are rate increases of a sharper degree than frequently are experienced. It was some such thought as this which led Goschen in 1860 to advocate, for the purpose of producing the desired effect upon the foreign exchanges, increases of a full one per cent in the Bank rate instead of the customary advances of a half per cent. In line with rapid increases in discount rates the sales of government securities in the market should be large. Once the credit supply has become excessive, the market should be rigorously tested by decisive measures.

The Necessity of Vigorous Measures When Emergency Conditions Have Developed

But receptive as we are to the idea of vigorous, whole-hearted measures by the reserve banks on such occasions for the purpose of alleviating difficulty, it is still our contention that adequate solution can be found only in striving to prevent the emergence of disturbances. The reserve banks' major efforts should be directed toward steadying the outstanding mass of credit. The experience of the summer of 1927 seems to show that easing measures are dangerous if applied at a time when the rate of credit expansion is in excess of that which experience seems to have justified. Sooner or later the market will find occasion to employ any surplus supplies of credit available. Once commitments are made, control by the reserve banks becomes difficult.

XII. The Effect of Money-Market Stabilization upon the Volume of Street Loans

There is, however, a great deal more to the problem than that of directing the long-time course of the credit supply in such a way as to avoid the surpluses on which speculation feeds. There is also involved the reserve bank policy of counteracting the short-time seasonal and irregular fluctuations in the demand and supply of credit.

**Seasonal
Credit
Demands**

In the formative years of their growth, the reserve banks came to develop to an extreme their policy of eliminating so far as possible the shock of temporary disturbances. Out of the wealth of accumulating experience they became possessed of the means of determining the time and the extent to which credit conditions in the country's money-market centers would be affected by such influences as tax payments, autumnal demands, and Treasury disbursements. In the quite proper endeavor to provide the country with a smoother working financial mechanism than that which prevailed in earlier days, they generally operated in such a way as to counteract the influence of losses or gains of funds in the central money markets. When the money market tended to lose cash, the reserve banks usually operated to restore it, and vice versa. On occasions of loss of cash, in order that the money market should be kept as free as possible from disturbance, purchases of government securities were frequently enlarged so as to avoid even the necessity of compelling member banks to tender discount applications to the reserve banks.

In the future it would seem that if the reserve banks regard the growth of street loans as especially troublesome they should employ such stabilizing measures somewhat less punctiliously. Such practices have tended to make the street a more preferred market for the employment of the surplus funds of interior banks. Even without the stabilizing activities of the reserve banks in the money centers, the street loan possesses many desirable qualities. The call loan is relatively safe—there are few instances in which such a loan on well-diversified collateral has involved the lender in loss. It may be diversified as to collateral and it permits of ready substitution of security. The machinery for placing it has been developed most efficiently. For all practical purposes it is about as reliable a secondary reserve item as the bank acceptance or high-grade stocks and bonds.

**Money
Market
Stabilization
Has Increased
the Attractive-
ness of the
Call Loan**

In earlier days, however, it possessed one decided drawback—uncertainty of return. Withdrawals of funds from the street tended to increase

its rate greatly, whereas on the other hand the inflow of funds was likely to reduce its rate by a considerable margin. A high call rate in the past could not be counted on to persist. But if, by the equalizing or stabilizing activities of the reserve banks, the earlier drawback—uncertainty of return—be overcome, the problem of the unnecessarily large diversion of funds to security uses may be rendered more difficult.

XIII. Conclusions

The principal conclusions of this analysis may be summarized as follows:

(1) Security loans do not necessarily indicate the permanent withdrawal of funds from agricultural, industrial, or commercial uses. The funds originating in these loans are always in a process of being redistributed the country over. The extent to which at any time this redistribution is complete can be determined more accurately by examining deposit accounts of various classes of banks, in such a way as to ascertain whether the growth of deposits is general or confined to the financial centers, than by any other means.

(2) In view of the changing financing methods of business corporations it is impossible to determine the precise amount of funds which the proper servicing of the securities market requires at any given time. The reserve banks can be held responsible for attempting to provide the country with the desirable aggregate of bank credit. They cannot be held responsible for the particular ways in which business decides to acquire credit.

(3) The proposal to convey special powers to the reserve banks to enable them to resist the diversion of an undue amount of lending to the security markets is principally objectionable on the ground that occasions may arise in which it will become desirable for the reserve banks to operate in such a way as to encourage security activity in the endeavor to provide the country with the proper mass of credit. The previous exercise of special powers to discourage lending to the security markets might have created precedent which would be embarrassing on occasions when encouragement should be generally extended to business by means of easier credit policies, which may have the effect of stimulating security operations. It has not yet

been proved that the reserve banks do not have as much power to apply restraint as is required, providing that they are far-sighted and accurate in their application of existing powers, through anticipating emergency conditions.

(4) In case, however, security demands have developed to a point threatening to deprive the reserve banks of credit control, vigorous, decisive measures should be employed rather than mild weapons of restraint. Furthermore, the stabilizing activities of the reserve banks in the financial centers should be reviewed in the light of whether they have tended to render the call-loan market unnecessarily attractive.

XIV. Addendum

The foregoing was prepared before the stock market crash of October, 1929, occurred. The tremendous extent of this decline goes far to confirm the conclusion that when credit demands are becoming excessive, and tend to resist ordinary measures of restraint, vigorous, corrective action should be promptly undertaken. Such action, by testing out the market and shaking loose weak holders of securities, may bring loss to some, but such loss is insignificant in comparison with the disasters of a major collapse. While speculative enthusiasm may have been principally responsible for the excessive credit demands, and although the security markets would probably have borne the heaviest burden of such early, decisive measures, the state of security prices need not have been the criterion of reserve action. Late in 1927 and early in 1928, a runaway credit market threatened, and sterner measures could have been employed at that time. No warnings were then required except the tendency of the whole mass of member bank credit to grow at a faster than normal rate and to resist mild curbing measures. Over such tendencies the reserve banks have an undisputed jurisdiction, and a pronounced bull movement cannot develop without stimulating them. Correct handling of such a situation as the recent one does not require that the reserve banks make themselves the arbiters of stock market values.



Better Banking Under the Federal Reserve System

Reprinted for distribution with the series of
auxiliary statements, supplemental to the
report—"The Federal Reserve System"—
prepared by the Banking and Currency
Committee of the Chamber of Commerce
of the United States

Those familiar with the literature of the Federal Reserve System will recognize in this document the reproduction of a pamphlet, well known under the title of "Better Banking," that was widely distributed a few years ago in a campaign of education by the federal reserve banks. It is included here as the best short factual description of the System and its operations which has come to our notice.

There are also included a number of paragraphs taken from an address by Mr. Pierre Jay, then Chairman of the Board of the Federal Reserve Bank of New York, before the Annual Meeting of the Chamber of Commerce of the United States, May, 1925.

The pamphlet is now reprinted to accompany the Auxiliary Statements supplemental to the report—"The Federal Reserve System"—prepared by the Banking and Currency Committee of the Chamber of Commerce of the United States.

- I. The Rediscount Operations of the Reserve System.
- II. The Open Market Operations of the Reserve System.
- III. Guides to Reserve Credit Policy.
- IV. The Structure and Control of the Reserve System.
- V. Reserve Requirements of Reserve and Member Banks.
- VI. Federal Reserve Notes and Other Currency.
- VIII. The Reserve Banks and the Use of Bank Credit by the Security Market.

Better Banking Under the Federal Reserve System

A Short Story Without Figures

I. The Strength of Organization

It is usually better to work with other people than to work alone. We have clubs, associations, societies, for the purpose of multiplying the strength or effectiveness or resources of the individual members. A regiment is stronger than the strength of all the men who make it up. An army is stronger than a mob.

Just so with money. Men work and save, and deposit in banks their savings or the ready money needed for business use. In every bank there are many deposits, none of which may be large in itself; but taken together they become much more useful than if they had been kept separately. Taken together they enable a bank to lend its customers the money they need for carrying on their business. Thus the money of many individuals serves the business needs of the city and town and the farming needs of the country.

What a
Bank Does

A federal reserve bank does for banks almost exactly what banks do for their customers. It receives money on deposit from such banks as have become members of the Federal Reserve System, and lends to them. All national banks are members of the Federal Reserve System, and many state banks and trust companies have become members also. Every member bank is obliged by law to keep with its federal reserve bank an amount of money which bears a certain proportion to the deposits it has received from its customers. This is called a "reserve," and as the federal reserve banks keep the reserves of their members they are called "reserve" banks. At times, member banks borrow from their federal reserve bank just as individuals borrow from their own bank. Individuals cannot deposit money with a federal reserve bank, or borrow from it; their relation with it is through the member banks.

What the
Federal Reserve
Bank Does

II. Before the Federal Reserve System

Before the Federal Reserve System was in operation, each individual bank stood virtually alone. This was safe enough as long as things went

well in the business world, but even then the machinery of banking was so cumbersome that it often worked badly.

In order to meet the requirements of law and pay depositors, all banks used to keep large amounts of gold and currency on hand, and most of them also kept money on deposit with other banks in the larger cities. When all went well, the money on deposit with the city banks could be withdrawn in currency whenever it was wanted. But when, as sometimes happened, business or banking conditions were disturbed and suspicion was in the air, the banks were anxious to increase the amount of cash on hand lest an unusual number of depositors might want to withdraw their money. And it was at those times that the city banks were least able to furnish cash. For the available supply of currency was limited, and there was no quick way of increasing it.

**Defenses
Weakest When
Needed Most**

This limited supply of currency led to the panic of 1907. For, moved by apprehension, almost every one of the twenty-four thousand banks sought, for its own protection, to withdraw such currency as it could from other banks and pay out as little as possible to its depositors. Though emergency measures were finally taken, they were too late to prevent the coming of trouble, and the existing banking machinery fell apart into thousands of separate units.

Each bank had to trust largely to its own cash resources, because, however willing, the other banks felt they could not give up much of their cash, for by doing so they might impair their ability to meet the possible needs of their own customers. Each bank, in seeking to protect itself, necessarily weakened the entire banking structure. The defenses were weakest when the danger was greatest.

The result was that every few years a money panic occurred, bringing disaster and depression. These money panics from which the United States suffered, and which the organization of the Federal Reserve System now prevents, were, of course, quite different from the commercial crises from which every country occasionally suffers.

III. Under the Federal Reserve System

Under the Federal Reserve System there is a quick, certain automatic way by which the banks that are members of the System help one another, in good times and bad. This is important to every business man, every farmer, every working man, every citizen. It is the result of organiza-

tion—the kind of organization that makes a system of reservoirs in a community better than many separate wells.

It is appropriate to think of the Federal Reserve System as exactly that—a system of reservoirs. There are twelve of these reservoirs, the federal reserve banks at Boston, New York, Philadelphia, Cleveland, Richmond, Atlanta, Chicago, St. Louis, Minneapolis, Kansas City, Dallas, and San Francisco—each serving the needs of the member banks in its own federal reserve district. In each of these reservoirs credit is stored up and from it, as the need arises, credit is supplied to the member banks and through them to their customers, including not only business men and farmers, but other banks as well. The process is much like the storing up of water in a city reservoir, from which it is supplied to houses and their occupants.

It may be thought strange that such a thing as credit, which in this sense is the power to make loans, can be stored up. But the fact is, a great deal of it is stored up in the federal reserve reservoirs. For, as we have seen, the member banks deposit in the federal reserve banks most of the gold they formerly kept in their own vaults and some of the money they used to keep on deposit with other banks. And it is the gold which federal reserve banks acquire in this and other ways that gives them the ability to make loans and issue currency.

A Reservoir
of Credit

The provisions of the law are such that the federal reserve banks can make loans to an amount between two and three times as much as the gold they have. So, having a supply of gold in storage, they have a lending power in storage also. As this lending power is used, the level in the reservoirs falls. In 1920 the reservoirs ran very low, because the farmers and business men made unusually heavy demands upon them at a time when they had already been drawn down by the war needs of the government.

The supply of water in a reservoir becomes useful when it is distributed through the water mains. The supply of credit in a federal reserve reservoir becomes useful when it is distributed through the member banks. But just as it is the individual and not the reservoir that draws the water, so it is the business man or the farmer who takes the first step which may result in drawing upon the reservoir of credit. For example:

A grocer in Austin, Texas, wishes to buy fifty barrels of flour. He has not enough money in the bank with which to pay for it, so he asks his local Austin bank for a loan. This is the first step just referred to.

The Grocer
of Austin,
Texas

The Austin bank, satisfied with the grocer's credit, makes him a ninety-day loan on his note. The grocer buys the flour and proceeds to sell

**When a Bank
Borrows**

it barrel by barrel to his customers. As his customers pay their bills, the grocer accumulates money with which he pays off his note.

In ordinary times and in slack seasons, a bank's own resources are sufficient for its customers' needs. But perhaps the Austin bank, which is a member of the Federal Reserve System, is asked to make the loan to the grocer at a time when many people are asking for loans to carry on their business. Or perhaps its depositors for one reason or another are having to draw down their deposits. If the Austin bank is to continue to lend money and pay its depositors, it in turn will have to borrow.

Before the Federal Reserve System was in operation, the Austin bank would have had to ask for a loan from some larger bank with which it had an account. Ordinarily the loan could be obtained. But if money happened to be scarce, the larger bank might be compelled to refuse to lend, because its own resources were running below what it might need to meet all the demands of its customers.

Now, however, as a member of the Federal Reserve System, the Austin bank is in a quite different position. It has a bank of its own, the Federal Reserve Bank of Dallas, to which it goes as a matter of right given it by law. It sends to the Federal Reserve Bank of Dallas the grocer's note and other notes upon which it has already made loans. With these as security, the Austin bank asks the federal reserve bank for a loan.

This is the second step in drawing upon the reservoir of credit, and follows the first step which the individual took when he borrowed from his bank. Both steps must be taken before the federal reserve bank lends a dollar.

**Into the
Channels of
the Federal
Reserve**

The Dallas reserve bank examines the notes to see whether they are sound and acceptable, and of the kind the law permits it to lend upon. Being satisfied, it makes the loan to the Austin member bank. This is called "rediscounting"; and the rate of interest the federal reserve bank charges is called the "discount rate." This is a published rate, applying uniformly to all member banks in its district, and is often quite different from the rate the member bank charges its own customers. The rate a member bank charges its customers is determined, subject to state law, largely by local business conditions and local banking custom. The rate a federal reserve bank charges its member banks is determined, from time to time, largely by the amount of credit-making power it has in its reservoir, and also, to some extent, by credit conditions generally throughout the United States.

Later, when the grocer's note falls due, the federal reserve bank sends it back to the Austin member bank and receives payment for it. The

Austin bank in turn receives payment from the grocer and gives him back his note. Thus the circle is completed. Meanwhile, the grocer has been able to carry on his business, and the Austin member bank, with the money it borrowed from the federal reserve bank, has been able to make more loans to its customers than if it had had no reservoir to draw upon.

IV. The Kinds of Loans Federal Reserve Banks Make

The simple transaction of the Austin grocer is typical of the vast mass of loans which enter into the operations of the Federal Reserve System. Suppose, for instance, that instead of the grocer, the borrower is a dry goods merchant in Butte, a hardware dealer in Chicago, a steel maker in Birmingham, a lumberman in Seattle, or an exporter in New York—each a responsible business man in good financial standing locally. Their borrowings from member banks, whether large or small, can in turn be borrowed upon by the member banks at their federal reserve banks, provided they arose out of the production, sale or marketing of goods, and are within ninety days of falling due.

Loans to
Commerce and
Industry

Suppose, again, that instead of the grocer of Austin, the borrowers are farmers, or planters, or cattlemen, likewise in good financial standing locally. Their borrowings from member banks, whether large or small, can be borrowed upon by the member banks at their federal reserve banks, provided they were for agricultural purposes, including the raising or marketing of livestock, and are within six months of falling due.

Loans to
Agriculture

Suppose, again, that the borrower is anyone who owns a United States Government bond or note, and puts it up at his bank as security for a loan. Such borrowings from member banks, whether large or small, can be borrowed upon by the member banks at their federal reserve banks if they are within ninety days of falling due. It was loans of this sort, rediscounted at the federal reserve banks, that enabled millions of people throughout the United States to subscribe to the Liberty and Victory loans.

Loans on
Government
Bonds

V. How One District Helps Another District

Just such reasons as prompted the Austin member bank to borrow from its federal reserve bank sometimes cause a federal reserve bank itself to borrow. Borrowings by many member banks, representing loans that

they have already made to their customers, sometimes draw down the reservoir to such a point that it must be replenished if the federal reserve bank is to continue to lend.

This country is so vast that one section of it is apt to have credit to spare when another section needs credit. All that is necessary is a quick and easy means for bringing them together. The Federal Reserve System furnishes the means and has often used it. A federal reserve bank renews its power to lend by borrowing from another federal reserve bank in a district where the demand for credit is smaller. It puts up as security the notes upon which it has lent to its member banks. In other words, one of the twelve reservoirs in the country-wide system pipes in some of the surplus credit from one or more of the other reservoirs and so renews its power to lend.

This is the kind of beneficial cooperation between agricultural and industrial districts that actually took place in the difficult years of 1920 and 1921. At times, when agricultural districts such as Richmond, Atlanta, St. Louis, Minneapolis, Kansas City or Dallas, having received large amounts of money in payment for their crops, had surplus credit, they lent it to industrial districts which were in need of it. At other times, when the situation changed and industrial districts such as Cleveland, Boston, New York, or Philadelphia, having received payment for goods, had surplus credit, they lent it to agricultural districts.

Thus an individual in need of money may borrow from the member bank, and the member bank may borrow from the federal reserve bank, and the federal reserve bank in turn may borrow from other federal reserve banks. The twelve federal reserve banks, taken together, form our ultimate reservoir of credit. Though their resources are very great, they are not unlimited, and in times of extraordinary credit demand it is to the interest of everyone to make sure that the reservoir is not drawn down so low as to impair its continued usefulness.

VI. The Power to Issue Currency

Very closely connected with the power of the federal reserve banks to lend is their power to issue currency—federal reserve notes. The power to lend, taken by itself, would be of far less value if the power to issue currency did not go with it. Just as the customer who makes a loan at his bank may need to draw out part or all of it in currency, so a member bank

in making a loan at a federal reserve bank may need to draw out part or all of it in currency. The power to issue currency insures to everyone who has a deposit in a solvent bank the ability to draw it out in currency. That explains why this country never again need have a money panic such as that of 1907; explains, indeed, why there was no suggestion of a money panic in the difficult months of 1920.

Look at a five-dollar bill bearing the portrait of Lincoln. On its face it says that it is an obligation of the United States; on its back that it is redeemable in gold at the Treasury in Washington. Federal reserve notes are also redeemed in gold at any federal reserve bank.

**What Stands
Behind Federal
Reserve Notes**

Each federal reserve bank is required by law to set aside security, dollar for dollar, against the notes it issues. The security may be either gold, or borrowers' paper very shortly to be paid, representing either loans for the production or distribution of goods and farm products, or loans to holders of United States Government securities. The gold which the law requires a federal reserve bank to maintain as a reserve against its notes must always be at least forty per cent of the amount of its notes in circulation.

These notes get into circulation and pass out of circulation in much the same way as money is drawn out of a bank and returned to it.

**Currency
Increases and
Decreases
According
to Need**

When a man needs currency he draws a check on his bank and cashes it. If he has not enough money in the bank to meet the check, he may have to make a loan. In just the same way, when a member bank needs currency, it draws and cashes a check on its federal reserve bank. Perhaps the member bank had to borrow at the federal reserve bank for this very purpose. That is how the total amount of currency in circulation increases.

On the other hand, when a man has more currency than he needs he deposits it at his bank and perhaps pays off a loan with it. Just so does a member bank at the federal reserve bank. That is how the total amount of currency in circulation decreases. As federal reserve notes for which there is no demand accumulate in a federal reserve bank, they are either destroyed or put away in its vaults until some need calls them out again.

Whether the volume of federal reserve notes in circulation increases or decreases depends not upon the initiative of the federal reserve banks, but upon the needs of the member banks. Their needs, in turn, are decided by the needs of their customers. As in drawing water from a reservoir it is the individual who takes the first step.

VII. Organization of the Federal Reserve System

The plan of organization which the law lays down for the Federal Reserve System does two things. It provides a nation-wide system so knit together that nation-wide resources may work as a unit in a national emergency, or be mobilized to meet a local emergency too severe for local resources to cope with. It also preserves the right of local self-government in banking. These are principles with which Americans are familiar in the working of the federal and state governments under the Constitution.

**Organized
Like Other
Banks**

The country is divided into twelve districts, each with a federal reserve bank. In many districts the federal reserve banks have one or more branches for the better service of the member banks. Each federal reserve bank has its own stockholders, directors, officers and clerks like other banking institutions. The stockholders are the member banks. Its nine directors are residents of the district, some from the cities and some from the country. Three are appointed by the Federal Reserve Board in Washington, and the other six are elected by the member banks, each having one vote. In voting, the banks are divided into three groups, each of which elects two directors. These groups are composed, respectively, of the smallest banks, the middle-sized banks, and the largest banks. Only three of the directors can be officers or directors of other banks. At least three, and usually a majority, are representative of industry, commerce and agriculture. For these are the interests which, through the member banks, the system is intended particularly to serve and protect.

These men, drawn from the district, familiar with its conditions and having its interests at heart, are responsible for the management and control of the federal reserve bank. They elect its officers, determine the policies under which it operates, and establish, subject to approval by the Federal Reserve Board, the rate of discount it charges. All profits, after setting aside the surplus provided in the law and after paying the member banks six per cent dividends on their stock, go to the United States Treasury and are used to reduce the national debt.

**The Federal
Reserve Board**

The twelve federal reserve banks could not work consistently together if there were not some coordinating body related to them all. That coordinating body is the Federal Reserve Board in Washington, which is made up of eight members—six who are appointed by the President and devote their entire time to the work, together with the Secretary of the Treasury and the Comptroller of the Currency. Through this Board the

federal reserve banks become a country-wide system. Without it they would be merely separate institutions.

The Federal Reserve Board, however, is not an operating body. Except for its power to require one federal reserve bank to lend to another federal reserve bank, its powers are almost entirely supervisory. It must approve the "discount rates" established by the directors of the various federal reserve banks before they are put into effect. It passes upon the salaries of their officers and employees, and under certain conditions may remove any of their officers and directors. It defines the classes of loans which the law, in general terms, says the federal reserve banks may make.

But the Board does not pass upon the individual loans which a federal reserve bank makes, or say to it when, or how much, or how little it shall lend to a member bank. Nor can the Board oblige the federal reserve bank to lend to a member bank or prevent it from doing so. The Board itself, of course, cannot lend money because it has none to lend.

VIII. Local Self-Government in Banking

Over the relations between member banks and their customers neither the Federal Reserve Board nor the federal reserve bank has any authority whatever. The federal reserve bank cannot lend directly to a member bank's customers, and lends to the member bank only when asked by it to do so. Furthermore, a federal reserve bank cannot say what loans a member bank shall or shall not make to its own customers. It is a man's own banker who decides whether a loan shall be made and what rate of interest shall be charged—and that is just as it was before the Federal Reserve System was established. There is no outside group or body, far or near, which can say how much or to whom or at what rate a member bank may lend.

In their right to borrow at a federal reserve bank all member banks, large or small, are equal. The law says that a federal reserve bank shall make each member bank such loans as may be safely and reasonably made. In making such loans the federal reserve bank, of course, exercises proper banking judgment. The law further says that in lending to a member bank the federal reserve bank shall have due regard for the requirements of all the member banks in its district. It must not lend so much to banks which might be disposed to borrow unreasonably that it will impair its power to meet the reasonable needs of other member banks later on.

There is also complete equality between all member banks in the kinds of loans, large or small, on which they may borrow at a federal reserve

Equal Use of
Reserve Bank
Facilities

bank, and in the rates of discount they pay. A loan for the purchase of a cow gets precisely the same treatment as a loan which provided the money to move a trainload of cattle or send a shipload of beef across the seas.

Nowhere in the world are there so many separate banks as in America. That each should be free to serve the credit needs of its own customers in accordance with its own sound judgment is the American principle in banking. Freedom to serve is assured under the Federal Reserve System to each one of its ten thousand member banks. But not only has freedom to serve been maintained; the power to serve has been enlarged and made more sure.

This larger and surer power is derived from banking organizations, through which the reserves of many separate banks are brought together for the greater protection and service of all—not only member banks and their depositors, but every bank, every depositor, every citizen. For the Federal Reserve System provides the entire country with a currency responsive to its varying needs, and thus removes the danger of a money panic. Moreover, it provides the entire country with a great reservoir of credit from which farm and range, forest and mine, factory and store, may receive assistance in producing and marketing all the innumerable goods and wares which go to make up American commerce, industry and agriculture.

The following paragraphs are taken from an address of Mr. Pierre Jay, then Chairman of the Board of the Federal Reserve Bank of New York, before the Annual Meeting of the Chamber of Commerce of the United States, May, 1925.

Physical Organization

The system consists of 12 banks with 25 branches, or 37 offices in all, covering every section of the country. These banks are not governmental bodies, but private corporations owned by the member banks who are their stockholders. Most of the reserve banks are housed in their own buildings, built with their own money, not that of the government. They have an aggregate staff of 10,500 clerks and officers and 108 directors. To the latter should be added the 160 directors of branches. These directors, officers, and clerks operate the banks and their branches under the Federal Reserve Act and subject to the general supervision of the Federal Reserve Board, composed of 8 members and its staff, sitting continuously in Washington.

Currency

Look over the paper money in your pocketbook and you will find that many of the bills it contains are federal reserve notes issued through federal reserve banks. Not only that, but probably every coin or bill that you carry has been handled by a reserve bank. For the reserve banks have taken over the functions of the old subtreasuries and practically all the money used in the United States is furnished through them. Banks return their worn or surplus money to the reserve banks, which in turn issue them clean money. There is a huge daily flow of currency into and out of the reserve banks. During the year this aggregates over \$10,000,000,000, or more than twice the amount of currency in circulation in the country. To handle so large a volume smoothly and to provide against emergencies,, the reserve banks carry a large reserve supply of currency in Washington and at their 37 offices. Practically no bank is distant more than 24 hours, and the vast majority of banks are distant only overnight, from one of these currency depots. Thus currency shortages are provided against and currency panics, like that of 1907, are eliminated. But the reserve banks do more than handle the mechanics of the flow of currency; their credit operations also give elasticity to its volume. The amount of money in circulation now increases at certain seasons and decreases at other seasons in accordance with business and agricultural requirements.

Check Collections

The next time you receive your canceled checks back from your bank, if you will examine the indorsements you will find that a large part of all the checks you sent out of town carry the indorsement of one or more reserve banks. Indeed, the reserve banks now collect practically all out-of-town checks; over two million of them every day. They have cut in half the time and expenses of collecting such checks, thereby greatly reducing any risks which business men run in accepting them in payment of invoices. As a result the vast majority of country checks are now paid at par and are so generally acceptable that most business concerns receive them readily and no longer require payment of their invoices in New York or other city funds.

Transfer of Funds

In the same way, the reserve banks' system for transferring funds by telegraph and at par from any member bank to any other member bank in

the country has eliminated the domestic exchange markets which formerly used to flourish, together with the premiums they used to charge for such transfers which acted as barriers to the free flow of funds throughout the country. Last year about \$98,000,000,000 was thus transferred over our wires. A number of the large business concerns are effecting great economies through using these facilities.

Who Decide Policies?

At each federal reserve bank the discount rate is initiated by its directors, in consultation with its officers. This rate, as I have said, is subject to the review and determination of the Federal Reserve Board. Let us take the personnel of the Board first. The Act provides that the Secretary of the Treasury and the Comptroller of the Currency shall be members ex-officio and that of its six appointed members not more than one shall come from any one federal reserve district. Also that they must represent fairly the financial, agricultural, industrial, and commercial interests of the country. The occupations of the present six appointees, before appointment, were banker, farmer, merchant, newspaper publisher, lawyer, economist; a widely diversified group.

Business Men Predominate

Coming now to the nine directors which each federal reserve bank has, the member banks elect six of these, of which three may be bankers and three must be actively engaged in commerce, agriculture or industry in the district. The remaining three are appointed by the Federal Reserve Board. Of the 108 present directors of the 12 banks 12 are the chairmen of the boards, men of banking experience devoting their entire time to the reserve banks; 36 are active bankers, but many of them also engaged in business or agriculture; while the remaining 60, constituting the majority, at present have the following occupations:

19 manufacturers	2 lawyers
13 merchants	2 railroads
4 farmers	1 contractor
3 lumbermen	1 public utilities
3 insurance	1 mining
3 investment bankers	1 quarrying
3 retired business men	1 banker
2 publishers	1 vacancy

Here, again, the business directors of the banks are a widely diversified group and comprise many of the leading men of the various districts. For example, the five business men on the New York Board are:

William H. Woodin, President, American Car & Foundry Company.

Clarence M. Woolley, Chairman, American Radiator Company.

Samuel W. Reyburn, President, Lord & Taylor.

Theodore W. Whitmarsh, President, Francis H. Leggett & Company.

Owen D. Young, Chairman, General Electric Company.

The same is true of the branch directors, whose jurisdiction in credit matters, however, is limited to passing on loans to member banks in the territories served by the branches.



Gift of Dr. Harold L. Reed - Cornell

8/18/54

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The Committee on the History of
the Federal Reserve System

The Federal Reserve System

Report *of the* *Banking and Currency Committee*

FINANCE DEPARTMENT
CHAMBER OF COMMERCE OF THE UNITED STATES
WASHINGTON, D. C.

1929

The Federal Reserve System

Report
of the
Banking and Currency Committee

December, 1929
1380

*To the Board of Directors of the
Chamber of Commerce of the United States:*

BY ACTION of your Board the Banking and Currency Committee of the Chamber was authorized to study, among other questions relating to banks and banking, the necessity for changes in the Federal Reserve Act, and for changes in the policies and practices of the Federal Reserve System, as well as the problem of securing a better integration of the credit structure of the United States.

Your committee has confined its studies to the Federal Reserve System. It found this subject to be of such scope and importance as to engross all of its attention. It is recommended that the problem of better integration of our credit structure, including the inter-relationships of the National Bank Act with the Federal Reserve Act, be made the subject of later Chamber study.

Your committee became convinced in the course of its work that its report, to be most useful, should deal with those features of policy and of operation of the System that are permanent. It does not undertake to develop ephemeral phases of situations passed or passing. Proposals for changes in policy or practice, and current conditions, have been considered fundamentally in the light of their long-time effects upon the System and upon the economic well-being of the country.

The report and certain auxiliary statements are the result of committee and staff studies conducted for more than a year. In the course of our scrutiny of the System we have considered, so far as we are informed, every criticism of it and every current proposal for change in its policies or practices that might have a bearing upon its normal functioning. These include statements in the public prints, Congressional hearings, proceedings of learned societies, and resolutions and reports of bankers' associations and of other organized groups dealing effectively with phases of our economic life.

A number of unpublished proposals for change in the System's policies and methods were brought to our attention. Some of these, emanating from thoughtful men with considerable knowledge of the situation, were not put forward with a view to their immediate applicability. Such suggestions will require continued study. Their au-

thors agree that no far-sweeping changes should be made when there are serious doubts as to their suitability to a system that, as a growing organism, must be adapted carefully to our country's needs as those needs actually develop.

A number of factual studies were prepared, as well as reviews of studies made under other auspices. They have served as working documents and have not been included in our report. Much of their content has been collected in a series of eight supplementary statements which accompany this report. The titles of these auxiliaries* indicate their scope:

- I. The Rediscount Operations of the Reserve Banks.
- II. The Open Market Operations of the Reserve Banks.
- III. Guides to Reserve Credit Policies.
- IV. The Structure and Control of the Reserve System.
- V. Reserve Requirements for Reserve and Member Banks.
- VI. Federal Reserve Notes and Other Currency.
- VII. Membership of the Reserve System.
- VIII. The Reserve Banks and the Use of Bank Credit by the Security Market.

Not all of the proposals studied by the committee are discussed in the report. Many ideas relating to the structure of the System, the number of reserve banks, rearrangement of district lines, and the existing district organization in general, were considered. Numerous suggestions for changes of almost every conceivable sort have been given attention. A good many of them dealt with details which were in harmony with or opposed to some general principle agreed upon by the committee, and so were not given specific mention. The report is devoted in the main to problems of fundamental interest and importance.

The committee was assisted in the preparation of this report by a supplementary group of business men, bankers, economists, representatives of agriculture and labor, and federal reserve officials, who met in advisory conference to consider an earlier draft. Their contribution is gratefully acknowledged.

We believe that we have been able to reduce the field of controversies to a comparatively small area and we are gratified to have reached agreement upon the content of our report.

BANKING AND CURRENCY COMMITTEE.

HARRY A. WHEELER, *Chairman*,

*These auxiliary statements, prepared at the order of the Committee, are primarily of the nature of staff studies.

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- MATTHEW WOLL, President, International Photo-Engravers Union of North America, Chicago, Illinois.
- MOORHEAD WRIGHT, President, Union Trust Company, Little Rock, Arkansas.

NOTE: Mr. Chellis A. Austin, the late President of the Equitable Trust Company of New York City, Mr. Charles A. Hinsch, the late President of the Fifth-Third Union Trust Company of Cincinnati, Ohio, and Mr. Theodore F. Merseles, the late President of Johns-Manville Corporation, New York City, were also members of the Committee and signed the report. Their contributions to this report are gratefully acknowledged.

THE FEDERAL RESERVE SYSTEM

Report of the Banking and Currency Committee
of the
Chamber of Commerce of the United States
(Accompanied by eight auxiliary statements)

I INTRODUCTORY

THE record of the Federal Reserve System has so far met with public approval as to induce legislation extending the charters of the federal reserve banks for an indeterminate period. This favorable public sentiment should discourage constant legislative action with respect to the System's basic and fundamental features.

The Federal Reserve System is not a borrowed scheme of central banking, but a distinctive American institution wrought out of our own financial experience and especially adapted to the business and banking requirements of the United States.

We express confidence in the usefulness of the System. Inaugurated at the beginning of the World War, it was called upon within a short period to deal with situations of the utmost gravity. It met admirably the trying tests of those times, earning a record of distinguished service.

In the post-war period of tremendous credit expansion it was prevented by the fiscal policies of our government, reflected in the dominating influences of the Treasury, from imposing early effective checks upon inflationary uses of credit. Nevertheless, in the ensuing price decline of 1920 and 1921, the System demonstrated its ability to avert the development of a threatening financial panic.

Throughout the searching times of war and of world economic reconstruction the System has been a bulwark of strength for the United States and a helpful influence in the financial stabilization programs of other countries.

The System's short history can be divided into three parts. As stated, in its early, formative years—the first four—it operated under the influence of actual hostilities and, in post-war years—the second four—it labored in the unsettled economic situation that was the aftermath of the Great War. It is only in recent years—the past seven—that under more normal conditions its operations permit of accurate approximation of its utility in times of peace.

We believe the System possesses these definite values:

It provides a system of mobilized bank reserves, reinforcing the credit structure of the country and increasing the ability of banks to care for credit needs.

It supplies a sound, elastic system of currency.

It serves to avert the danger of money panics.

It safeguards gold movements; it protects the gold reserve of the country and regulates its employment as a base for credit extension.

It increases the supply and general availability of credit for agricultural and commercial purposes and checks extreme and frequent fluctuation in the cost of such credit.

It improves the facilities for maintaining our banking resources in a liquid condition.

It establishes an almost universal system of par payment of checks, increasing the usefulness of the check as our principal medium of exchange, and practically eliminating a former heavy toll on business.

It improves our credit facilities for the orderly marketing of farm crops.

It aids in the financing of our foreign and domestic trade by developing a discount market for acceptances and by stimulating the world use of dollar exchange.

It is helpfully related to the maintenance of the gold standard abroad, thereby reducing trade risks from unstabilized currencies and rapidly fluctuating exchanges.

It supplies the financial institutions of the country with the means of cooperating more effectively to meet future exigencies of our national interests at home and abroad.

Prior to 1914, this country had had no recent experience in the field of central banking. It was not then certain whether the new System would succeed in attracting from more gainful private callings able men who would devote themselves wholeheartedly to the special problems of reserve banking.

The history of the Reserve System records many instances of personal sacrifice by men of influence and capacity who have become members of its governing bodies. The continuation of this devotion and energetic enthusiasm is quite as important for the future welfare of the System as any alteration in its structure or methods of operation.

Timely modifications in the Federal Reserve Act and in the administrative policies of the System, however, will continue to be necessary. With the changing requirements of our domestic business and the increasing influence of our country in international trade and finance, new responsibilities will thrust themselves upon the Federal Reserve Board, the regional banks, and member banks.

The System must be subjected to periodic review by those who have an understanding of its values and a sympathetic appreciation of the complexity of the problems with which it deals. If friendly and constructive critics do not devote attention to perfecting the credit structure, it will be difficult to meet radical proposals of a harmful nature or well-meant but mistaken efforts to divert the System from its proper course.

The prime essential is the development by the American business public of a sober and sympathetic spirit of criticism of the policies of the System. It is in furtherance of this purpose that we submit our reports.

II

Reserves and Note Issues of Federal Reserve Banks

(The auxiliary statement upon Reserve Requirements for Reserve and Member Banks—Number V—and the one upon Federal Reserve Notes and Other Currency—Number VI—develop this subject in somewhat greater detail.)

THE Federal Reserve System is not a central bank, yet its fundamental operations are in the field of central and not of ordinary banking. It is designed to supplement the credit distribution activities of ordinary banks that deal directly with the public and depend upon profits. It is charged with a primary responsibility to which, if necessary, every other consideration should be subordinated, viz., the maintenance of the currency and credit structure firmly upon an adequate foundation of gold. In general, as a reserve or supplementary credit institution, it must seek to exert a steadying influence upon the money market and upon the course of industry.

Such an agency must be endowed with ample powers of credit and currency expansion and contraction. The possession of such powers imposes a measure of responsibility which can be discharged successfully only by an experienced and politically independent management. The extent to which such powers of a central banking agency must be hedged about by legal limitations, in contrast with those self-imposed by its management, is the first problem of legislative action.

The statutory restrictions that are imposed upon the lending powers of the System have to do principally with the reserves required of the reserve banks themselves, with the reserves required of member banks, and with the issue of federal reserve notes.

The reserve which each of our regional reserve banks is required to keep behind its liabilities limits the total amount of reserve credit which it can supply upon the basis of a given amount of gold or other reserve money; the reserve which each member bank must carry with the regional reserve bank furnishes substantially all of the cash re-

sources of the reserve banks; and, finally, note issue provisions determine the extent to which currency demands may be satisfied without the issuance of the kinds of money which would reduce reserves.

Even those who advocate further restrictions upon the lending power of the federal reserve banks are not concerned over the first of these statutory limitations—the reserves that the twelve regional banks must maintain against federal reserve notes and against deposits. In recent years these reserve resources for the most part have been well in excess of the legal minima of 40 per cent against federal reserve notes and 35 per cent against deposits. Throughout this period it would have taken a rather drastic increase in the required reserve percentage to have imposed any serious check upon the lending powers of the reserve banks.

There are proposals, however, for changes in the legislative provisions applicable to the reserves that must be maintained by member banks and for alterations in the character of the reserves behind note issues. These have as their purpose the restriction of the credit powers of the reserve banks. One such recent legislative proposal provided that a member bank might keep 40 per cent of its legal reserve in cash in its own vault instead of the present requirement that the entire legal reserve be maintained with its regional federal reserve bank. The proposal also would prohibit the issuance of federal reserve notes against gold or against acceptances purchased in the open market. It would rescind, moreover, the provision that gold serving as collateral for federal reserve notes may also be counted by a reserve bank as a part of its required reserve. Another suggestion of an even more drastic character is that federal reserve notes should be issued only against the collateral of paper obtained by discount.

In general, these and somewhat similar suggestions seem to assume that it is possible to gauge in advance the exact amount of lending power that reserve banks may require at any time. They overlook the fact that the need for reserve credit is subject to wide and unforeseeable variations. The reserve banks must be provided with wide powers and large resources, and it is not a matter of great consequence if at times these are even materially in excess of requirements. There is no evidence in recent experience that the policies of the reserve

Cash in Vault as
Legal Reserve.
See Auxiliary
No. V.

banks, or their effects, would have been essentially different if a smaller volume of resources had been at their disposal.

The extent to which the federal reserve banks' lending powers would be lessened, by permitting member banks to keep 40 per cent of their reserves in their own vaults, would depend upon the amounts member banks actually would withdraw from the reserve banks. Nearly a billion dollars could be withdrawn. Any such decrease of the lending powers of the reserve banks would be undesirable. It is doubtful, however, whether in practice any large amount would be withdrawn, and, therefore, whether the lending power of the banks would be materially affected. Regardless of the effect upon the lending powers of the reserve banks, this proposal does not recommend itself as a matter of principle. Even if there were no material withdrawal from the reserve banks, there nevertheless would be an expansion of the lending power of the member banks resulting from the permission to count a considerable portion of their cash in vault as reserve. The desirability of such an increase in their lending power is questioned later in Section III, which deals with the reserve requirements placed upon member banks.

Issuance of Reserve Notes
Against Rediscounted Paper
Only. See
Auxiliary No.
VI.

The proposal that federal reserve notes should be issued only against the collateral of paper obtained by rediscounting is made in an effort to devise a means whereby note issues would expand and contract automatically with the needs of trade as evidenced by changes in holdings of discountable paper. This proposal rests upon a misconception which has persisted from the date of the enactment of the Federal Reserve Act. What bankers will do with the proceeds of a rediscount customarily has no relation to the collateral they offer reserve banks. Member banks borrow because of reserve deficiencies which result from their operations of every character and because of the demand depositors make upon their balances. Applications for additional credit by member banks may arise because of operations which are not necessarily advantageous to the community. The supply of eligible paper is always sufficient to permit an enormous increase in the volume of credit if it is employed as a basis of rediscount at the reserve banks. The Federal Reserve Board can affect the supply, moreover, by the exercise of its power to define the character of paper eligible for rediscount, within the meaning of the Act.

On October 4, 1929, according to the latest estimate made by the Federal Reserve Board, member banks held \$4,598,000,000 of eligible paper. Since on that date the federal reserve banks' holdings of rediscounted bills amounted to around a billion dollars, member banks, by the use of all eligible paper which they possessed, could have increased their rediscounts about four and a half times. It is true that the volume of eligible paper automatically increases in periods of business activity and rising prices. So too does its employment by member banks as a basis of accommodation at reserve banks. Because it is precisely at such times that restrictions upon the use of reserve credit may be necessary to prevent the development of unsound conditions, the eligibility principle cannot be depended upon either to impose a satisfactory limitation upon the aggregate supply of reserve credit or to insure wise use of the credit released.

As a further means of restricting the powers of the reserve banks there has been advocacy also of the proposal to eliminate as a basis of federal reserve note issues those bankers acceptances that are purchased by reserve banks. Bankers acceptances, when acquired by the reserve banks either through rediscount or through purchase in the open market, are now legal collateral for such note issues. The effect of the change would be to restrict the paper collateral of federal reserve note issues to that obtained by meeting the discount applications of member banks. This change is supported by some on the theory that the real need for currency is better represented by member bank demands than by reserve bank decisions to purchase or not to purchase such acceptances.

Aside from the impossibility of employing eligibility tests to control properly the activities of the reserve banks, this proposal is objectionable because individual reserve banks on certain occasions may find themselves inadequately supplied with rediscounted paper to secure their note issues. Reserve banks located in the agricultural sections of the West and South are not in a position to secure more rediscounting in their own districts by sales of bills and securities. Since these sales must be made in the larger money centers, any increase in the volume of rediscounts that might result from sales would be in those centers and not in their own districts. Thus, the proposal would restrict the note-issuing powers of some interior re-

**Issuance of
Reserve Notes
Against
Acceptances
Bought.
See Auxiliary
No. VI.**

serve banks undesirably with respect to those enjoyed by reserve banks operating in the money centers. The bankers bills, moreover, obtained by purchase are just as commercial in character as rediscounted paper.

Issuance of
Reserve Notes
Against Gold.
See Auxiliary
No. VI.

Another restriction that some favor would prohibit the issue of federal reserve notes in exchange for gold. The public's currency demands are today served efficiently and to an important extent by issuance of federal reserve notes. As the proposal to restrict these notes to the amount of rediscounted paper would reduce the volume of this form of money, it would be necessary to make good the deficiency by the issuance of money of another form. The effect would be to supplant about a billion of federal reserve notes with a billion of gold certificates. This would reduce the reserve ratio materially, and thus decrease the lending powers of the reserve banks.

We do not believe that it is possible to insure the wise use of reserve credit either through restricting by legislation the resources of the reserve banks or through concentrating attention upon special regulations of federal reserve note issues. The precise adaptation of the volume of reserve credit to the needs of business is the problem of administration rather than of law. No automatically operating statute can be substituted in this particular for prudent judgment and discretion. The reserve administration is acquiring by experience an art and technique that will produce more definite and continuous progress than prescription by the legislative body. The reserve administration should be encouraged to build upon its experience, retaining those policies and practices which prove successful, discarding those which are fruitless, and thus continuously developing improvement.

This committee concludes that:

1. It is not a matter of great consequence if the credit powers and resources of the reserve banks are at times even materially in excess of immediate requirements.

2. As the future needs for reserve credit and currency cannot be definitely foretold, it is desirable that reserve banks possess ample powers of credit and currency expansion to insure the largest measure of serviceability, especially in any periods of strain.

3. The precise adaptation of the volume of reserve credit in all its forms, including note issues, to the requirements of trade is a problem of administrative rather than of legislative control.

4. No changes should be made in the provisions of the Federal Reserve Act relating to the issue of federal reserve notes or to the reserve requirements, pertaining to reserve banks or to member banks, solely for the purpose of restricting the lending powers of the reserve banks.

III

Reserves of Member Banks

(An auxiliary statement upon Reserve Requirements for the Reserve and Member Banks—Number V—develops this subject in somewhat greater detail.)

AN important legal restriction upon the lending powers of member banks of the Federal Reserve System is the statutory requirement of prescribed reserves. Changes in the legal reserve requirements would affect either the total volume of credit the member banks can extend or the relative credit granting powers of the different classes of such banks. The desirability of encouraging an expansion in the aggregate volume of member bank credit by means of a general reduction in reserve requirements depends upon the need of business for more abundant supplies of credit. No general reduction on this account seems necessary. But rearrangement of reserve schedules as they apply to different classes of member banks could iron out some existing discrepancies and permit of more scientific definition of the kinds of deposits upon which their reserves are based.

This committee does not believe that general reductions in reserve requirements, whether initiated by direct or indirect means, should be considered. The resulting increase in lending powers of member banks would not coincide, save by accident, with any need of business for more credit. Once the country has become adjusted to certain reserve requirements it is undesirable to subject them to serious and sudden alteration. The extent to which such reduction

would benefit the average bank may also be questioned. The increased lending power thereby acquired by any one bank would be offset to some extent at least by the intensified competition of other banks whose lending powers similarly would be increased. It should be remembered, too, that reserve percentages are now much less than they were prior to the enactment of the Federal Reserve Act. In 1913, national banks in central reserve cities and reserve cities were required to maintain a reserve of 25% against total deposits, grouping demand and time deposits, and "country" national banks, 15%. Now, as member banks, the requirement for these three classes of banks, are respectively, 13%, 10%, and 7% against demand deposits, and 3% against time deposits.

The committee has given consideration to a number of proposals which have been advanced, designed to remove the inequalities which now exist between the different classes of banks as regards reserve requirements. Some of these proposals merit approval. Suggestions for change are not put forward with any idea that all the present inequalities of member bank reserves will be removed thereby. While recommending a few changes in the direction of equalizing the burden as between different classes of banks, the committee is convinced that a legislative revision of this section of the Federal Reserve Act, based upon recommendations from within the System itself, will be found to be desirable. In their review of needed changes, the officials of the System should take into account such changes as those advanced by the Association of Reserve City Bankers and others who have studied this problem.

Because this committee does not believe general reductions in reserve requirements should be made, it does not favor the proposal that vault money should be counted as a part of the legal reserves of member banks. On December 31, 1928, the vault cash of member banks exceeded half a billion dollars, and the counting of any considerable portion of this amount as reserve would be likely to lead to a large and sudden increase in the volume of member bank credit.

Nevertheless, the present method of treating vault money does not make sufficient allowance to a certain class of banks, mainly rural banks, for the larger vault cash reserves they are obliged to carry.

Banks that are remote from federal reserve banks or branches cannot employ in obtaining currency the "wheelbarrow" method of the more accessible banks.

It thus happens that on December 31, 1928, member banks in the reserve and central reserve cities held as cash in vault an amount equal to less than 2 per cent of their demand deposit liabilities, whereas on the same date all country bank members held cash in vault to an amount equal to 5 per cent of their demand deposit liabilities.

The practice of not counting cash in vault as reserve, dating from the amendment of June 21, 1917, has been realized upon by city banks to a much greater extent than by those outside of reserve and central reserve cities.

To lessen this handicap upon the banks, designated in the Federal Reserve System as "country" banks, this committee recommends that member banks be permitted to deduct cash in vault from demand deposits in computing their required reserves. This deduction would only reduce the aggregate required reserves by about fifty million dollars. It would afford some relief to country banks, and yet would not lead to any such violent expansion in the lending powers of member banks as would be induced by counting cash in vault as legal reserve.

There is another respect in which country banks are handicapped in the computation of reserve requirements. At the present time in determining their net deposit liabilities requiring reserve, member banks must include the net amounts that are due to other banks. When banks have amounts due from other banks, they may subtract these amounts from those they owe to other banks. In cases, however, where the "due from" items exceed the "due to" items there is no way under present law by which banks can be given credit for the excess. The class of banks which are most handicapped, namely, those which in balance with other banks are usually creditors, is again composed mainly of country banks.

In determining net deposits requiring reserve, this committee believes a bank with a net amount due from other banks should be permitted to set off this amount against its demand deposit liabilities. It is therefore urged that, in the computation of net demand

"Due from"
Deducted from
Demand
Deposits. See
Auxiliary
No. V.

deposit liabilities, banks should be permitted to deduct from gross demand deposits the net amount due on demand from other banks.

On the other hand, there is a liability incurred by some country banks which, in the judgment of the committee, might well be subjected to an increase in reserve requirements. Some country banks, although this is not the usual situation, acquire large balances from other banks just as do the larger city institutions. The possession of such deposits is one of the principal reasons why city banks have been subjected to somewhat higher reserve requirements than those imposed upon country banks. The situation will be roughly equalized if that portion of the liabilities of country banks that consists of net balances "due to other banks" is subjected to a ten per cent reserve requirement rather than to the 7 per cent requirement now enforced against it and other demand deposit liabilities.

1. The Committee concludes that based on the recommendations of administrative officials of the Reserve System, there should be a legislative revision of those provisions of the Federal Reserve Act relating to member bank reserves.
2. The Committee favors revision of reserve requirements to:
 - a. Permit member banks to deduct cash in vault from demand deposits.
 - b. Permit member banks having net balances due from other banks to deduct items "due on demand from other banks" from gross demand deposits.
 - c. Require country member banks to maintain a ten per cent reserve against net deposits due to other banks.
3. The Committee is not in favor of general reductions in reserves required of member banks;
 - a. Secured by permitting member banks to count cash in vault as legal reserve.
 - b. Intended solely for the purpose of lowering the lending powers of reserve banks.
 - c. Intended solely for the purpose of increasing the lending powers of member banks.

IV

Membership

(An auxiliary statement upon Membership of the Reserve System—Number VII—develops this subject in somewhat greater detail.)

THERE are about 26,000 banks in the United States. Approximately one-third of them belong to the Federal Reserve System, embracing all the national banks (nearly 7,500), as compulsory members, and almost 1,200 state banks as voluntary members.

Of the 17,000 or more non-member state banks, it is estimated that about 10,000 comply with the technical requirement for membership that they possess present or prospective capital of not less than \$25,000, or somewhat larger capital if located in cities or towns with populations of more than 3,000. In order, however, to become members they must also meet the test of examination and approval by the Federal Reserve Board, which would bar some.

It is evident that in number the outside institutions that might apply for membership in the System exceed the present membership. Many of these do not become members because the reserve requirements of state law are frequently less burdensome than would be the reserve requirements attendant upon membership in the Federal Reserve System. It is generally agreed that it would be necessary to make considerable modifications in present law and in methods of reserve bank operation in order to attract quickly into the System any large number of non-member banks. The essential question is the intensity of any need for a larger membership in the System.

From the point of view of the resources of the reserve banks, no additional membership is now urgently required. Member banks possessed on June 30, 1929, according to the latest available official figures, over 60 per cent of the capital and surplus of all banks of the country and a like percentage of deposits and of total resources. The approximately 1,200 state bank members control about two-fifths of all state bank resources. The resources of the reserve banks are more than sufficient to meet any demands upon them. Membership is suffi-

**Voluntary
Membership.
See Auxiliary
No. VII.**

ciently distributed to enable reserve banks to furnish the needed volume of reserve credit in every section of the country.

It is not necessary for all banks to belong to the System in order that credit released by the reserve banks shall flow to their localities. By indirect processes, such as by borrowing from correspondent banks and by receiving on deposit funds emanating from other communities, non-member banks participate in credit extended to member banks. Despite various frictions and obstructions, an excess of credit in one part of the country tends to flow toward localities where there exists any intense demand.

The federal reserve banks have done much among their members toward improving bank standards. Many non-member banks undoubtedly would gain through more direct contact with the reserve banks. Additions to membership are desirable insofar as they would enable particular banks to serve their communities more effectively and to the extent that they would lessen failure hazards. While statistics of bank failures over the past few years, particularly those relating to smaller banks, do not indicate that membership in the System is a guaranty against failure, nevertheless the Reserve System possesses great potentialities for enhancing member bank strength and solvency. When, and if, these are realized to the full and the legend "Member of the Federal Reserve System" becomes all over the country an unflinching and recognized badge of merit with real meaning, an increase in membership will follow.

Universal membership might bring gains in the better integration of the credit structure of the country. But there is error in thinking that because the System has merit it must be directly shared by all. The addition of small, comparatively weak banks, would injure rather than help the System. Many institutions, however, could be inducted into membership with mutual benefit to them and the System.

The membership problem is more serious when thought is directed to the retention of the present number of members. Any scattered withdrawal might seriously interfere with the ability of the reserve banks to serve various communities, and, if those with-

drawals should reach large proportions, they would tend to restrict the resources of the reserve banks to an undesirable extent. The proposal which is sometimes made to place membership in the System upon a voluntary basis for national banks does not seem advisable to this committee. Under such an arrangement it is to be feared that the management of the reserve banks might be subjected to undue pressure in the determination of policies by threat of numerous withdrawals.

It is unlikely that for any long period of time membership in the Reserve System will be stationary. Either the Reserve System will be adjudged to be so necessary and salutary that its influence will increase, or its prestige must gradually weaken. A continuous, even though slow, drift away from membership would develop anxieties on the part of the reserve administration and tend to bring about a general lowering of standards. From this point of view, it is highly important that membership in the System should prove satisfactory to members and serve to strengthen and render them more safe. The passage of the McFadden-Pepper Act, making continuance in the National Banking and Federal Reserve System more attractive to banks, was a move in the right direction. In furtherance of the purpose which that statute was designed to serve, there should be a serious effort to clear up in a satisfactory fashion the uncertainty which has arisen in many states and is reflected in the recent decision of the Supreme Court of the United States in a Massachusetts case concerning the continuance by a national bank of the fiduciary relationship enjoyed by a state bank which merges or consolidates with the national bank.

The most hopeful means, however, of preventing a serious number of withdrawals would seem to be through developing a solvency record for member institutions that will be conspicuously superior to that of non-member banks. But even though principal reliance must be reposed in the gradual heightening of the solvency of member banks, no sound means should be overlooked of making membership more acceptable to the banks of the country. Changes in the law and concessions in administrative procedure should be made wherever they would attract a larger membership and would

involve no sacrifice of strength of either the reserve or member banks. From this point of view attention is directed to proposals to:

- a. Effect certain changes in the reserve requirements of member banks.
- b. Pay interest on reserve balances.
- c. Enable member banks to participate to a larger extent in the earnings of reserve banks.

Changes in Reserve Requirements. See Auxiliary No. V.

In the preceding section of this report certain changes in reserve requirements are recommended for the purpose of removing some of the handicaps under which some member banks labor in computing reserves.

Interest on Reserve Balances. See Auxiliaries Nos. V and VII.

The second proposal, namely, that interest be paid on reserve balances, would be in accord with a practice of long standing before the System was established. Non-member banks, today, are permitted in most states to carry some reserves on interest with other banks, while member banks must place all of their required reserves with the reserve banks, which pay no interest.

No method has been proposed, however, by which interest could be safely offered by reserve banks upon a member's balance. On January 2, 1929, member banks' reserve accounts were nearly two and a half billions of dollars. Two per cent interest on this sum would amount to almost fifty millions of dollars. In 1927, after meeting dividend and surplus requirements the net earnings paid to the government as a franchise tax amounted to only \$249,591 and for 1928 to only \$2,584,659. Thus, it is seen that the interest which could have been paid upon reserve balances is almost negligible. In 1928, for instance, only one-tenth of one per cent could have been so paid. In rejecting the interest payment proposal this committee calls attention to the fact that by the Reserve Act reserve percentages have been reduced by amounts calculated to be sufficient to offset the loss of interest which was earned on reserve balances when carried with other banks.

Sharing Surplus Earnings. See Auxiliary No. VII.

But even though the reserve banks cannot safely be subjected to the obligatory charge of paying interest on balances, they might well be required to meet the lesser obligations of sharing surplus earnings, in years when there are such, with member banks. This committee

believes that the reasons for limiting dividends on stockholdings in reserve banks to 6 per cent are no longer applicable.

With the experience which has been gained in reserve operation, reserve banks will not be expected to deviate from sound procedure in order merely to enlarge earnings. The principle should be recognized, however, that such earnings as do result from reserve bank operations should benefit the stockholding member banks which contribute to the reserve bank capital and make the earnings possible. The System was set up to improve the ability of its members to serve the public. From them its resources were drawn. It would be well if some practicable means could be devised for distributing the net profits of reserve banks in larger part to member banks instead of paying them, after present dividend and surplus requirements, entirely to the government as a franchise tax. The Committee supports this in principle and does not believe that the adoption of some such method of distribution would result in too great an emphasis upon earnings.

It should be remembered that future reserve operations may require large development of the reserve banks' open market dealings. Member banks which may meet, even to a slight extent, competition on this account from reserve banks have a right to share in the profits derived in part from these operations. Even though the monetary return be small, the principle is thought to be important.

Consideration has been given to the "free services" which are performed by federal reserve banks for their members. It is our opinion that the authorities of the System might do well to review carefully this situation, especially as it concerns the collection of "non-cash" items. It is recognized that there are two possible viewpoints in connection with this question. Even though such a service as the free collection of "non-cash" items by the federal reserve banks cuts into the earnings of some member banks, it may perhaps be justified from the angle of service to commerce and industry, and to other member banks differently situated. Generally, the committee believes that care must be exercised in the development of any free services lest they encroach unduly upon the proper field of activity of member banks to the eventual detriment of the System.

This committee further believes that annual meetings of stockholders, which have been held in some districts, may well be adopted throughout the System as a means of developing mutual understanding of reserve and member bank problems.

One inadvertence in the McFadden-Pepper Act, prejudicial to member state banks, should be corrected. The language of that Act denies to member state banks the privilege of establishing branches in foreign countries and in dependencies or insular possessions of the United States. Foreign branches of national banks are expressly exempted from the branch banking restrictions of the Act. There should be no discrimination against state member banks in this respect. The Federal Reserve Board has recommended that the Reserve Act be amended to cover this discrepancy. This recommendation should be made effective.

The committee calls attention to one factor which has operated to keep some state banks out of the System. Reserve requirements of state law have been liberalized without the same justification which led to the lessening of the reserve burden upon members. The suggestion is made that the reserve percentages of state law in some of the states might well be raised, as respects non-member banks. On the other hand, there are states in which reserve requirements are an obstacle to membership, because a state bank upon becoming a member must still comply with the reserve requirements of the state and also with those of the Reserve System. It is desirable in all states that legislation respecting reserves should include the acceptance of reserve requirements for member banks as complying with state standards.

As stated, the principal hope of increasing the membership of the reserve banks must be reposed in an endeavor to establish a superior solvency and management record for member institutions. If the percentage of member bank failures in the last five years had been conspicuously smaller than those of non-member banks, similar in size and geographical location, the greater confidence of depositors would operate to bring into the System virtually every desirable non-member bank.

In efforts to increase membership the reserve banks could well afford to establish the policy of periodical visitation upon desirable

non-member banks by officers and staff detailed for this purpose. Similar visits to member banks would serve to tie them closer, and develop a better cooperation and understanding.

This committee concludes that:

1. Without lowering membership standards, a larger membership in the Reserve System should be sought in order to enable the reserve banks to serve various communities more effectively, to safeguard the Reserve System against loss of influence on account of future withdrawals, and to encourage improvements in banking standards.

2. Reserve banks should not pay interest on member banks' reserve balances.

3. The System should now be permitted to distribute its profits in larger part to member banks instead of paying them, after present dividend and surplus requirements, entirely to the government as a franchise tax.

4. Free services rendered by federal reserve banks such as the collection of "non-cash items" and safekeeping of securities should be developed with care lest the reserve banks encroach unduly upon the province and functions of member banks.

5. The reserve banks should exert every effort to establish a superior solvency and management record for member banks.

V

Lending Operations

(An auxiliary statement upon the Rediscount Operations of the Reserve Banks—Number I—and another upon the Open Market Operations of the Reserve Banks—Number II—develop the subject of Lending Operations in somewhat greater detail.)

RESERVE credit may come into use either as a result of the initiative of member banks or as a result of reserve bank discretion.

When the initiative proceeds from member banks or other financial institutions, the operation will take the form of a rediscount or of a sale of acceptances or in some cases of a sale of government securities to the reserve banks. When reserve banks are prompted by their own discretion to increase the volume of reserve credit, there is on occasions but a single means of practical effect, viz., the purchase of government securities in the open market.

In any consideration of the inability of the reserve banks to depend upon rediscount rate changes to secure the proper adjustment of the volume of reserve credit, it will be serviceable to classify the occasions which lead member banks to apply for rediscount accommodations. Aside from periods of general financial strain, member banks resort to reserve banks to meet occasional deficiencies in reserve; to take care of seasonal peak requirements of somewhat longer duration; to relieve sporadic local difficulties such as crop failures; and finally, in some cases, to secure enlarged resources for more or less prolonged employment.

It is commendable that both member banks and the management of the reserve banks regard permanent borrowing as contrary to sound banking principles and this is one of the reasons why it is not imperative that rediscount rates of reserve banks should be regularly above current lending rates. The persistency and extent of the indisposition of member banks to borrow continuously is one of the unexpected developments of the System's operations. On account of this disinclination, open market operations conducted by reserve banks

become necessary if they are to discharge responsibility for providing the country with the amount of reserve credit that may be deemed desirable. They cannot meet this responsibility merely by the adjustment of rediscount rates. Nor would open market operations confined to acceptances, thus excluding government securities, be sufficient.

This is not to imply that reserve banks' rates on rediscounts—as well as on acceptances—do not exercise some influence upon the general volume of credit. When rediscount rates are low, member banks which have borrowed to restore temporary reserve deficiencies will not be under so heavy pressure to pay off their reserve indebtedness quickly. In similar fashion, low rates on acceptances would encourage their sale to the reserve banks. But if rates on acceptances should be well under other rates, the reserve banks would come to hold such a large volume of these bills that holdings by member banks and other investment agencies would become unimportant. Acceptance rates well under rediscount rates would lead member banks holding acceptances and desirous of obtaining reserve accommodation to sell acceptances to the reserve banks instead of to rediscount. Acceptance rates persistently or far below call money rates would lead member banks to invest surplus funds in the call money market instead of in bills.

Inasmuch as one reason for introducing the bank acceptance into this country was to provide banks with an asset, based upon commercial transactions, which would become an object of general demand and thereby facilitate the effective mobilization of surplus bank funds, wider use by member banks of the bankers acceptance as an item of investment should be encouraged.

Relatively high rates on acceptances would tend to discourage their original creation. If the reserve banks should be unwilling to purchase these bills except on costly terms, a situation might be created in which borrowers would find it more advantageous to rely exclusively upon direct loans as a means of meeting their requirements. With these limitations upon acceptance and rediscount rate changes, the reserve banks on occasions have been obliged to depend very largely upon dealings in government securities in order to alter in the desired manner the outstanding volume of reserve credit.

Thus far in the System's history there has been an ample supply of government securities available at all times for purchase in the event that the reserve banks wanted to enter the market as buyers. Within the next five to ten years it may be necessary to face the situation which will develop when the outstanding issues are greatly lessened in amount by retirement, and have come to be more closely held by investors. The dependence to be placed upon open market operations, in regulating the total amount of reserve credit, may then become less certain. Whether or not that development will bring with it its own adjustment or whether some other forms of securities will have to be admitted as eligible for purchase by the reserve banks, is a matter of conjecture.

A material reduction in the volume of government securities would have its effect upon rediscounting practice as well as upon open market operations. A common and convenient method for securing federal reserve funds is for a member bank to submit its own note collateralized by government securities. As such securities become less abundant or less available, it will be necessary for member banks when borrowing, to offer paper eligible for rediscount or for purchase. This possibility has led to a renewal of the suggestion that the definition of eligibility should be so broadened as to make rediscountable with the reserve banks paper collateralized by stock exchange securities of high grade. This proposal was made during the debate in Congress on the bill creating the Federal Reserve System. So definite was the feeling against it that the Act contained a prohibition against the discounting of notes, drafts, or bills "covering merely investments or issued or drawn for the purpose of carrying or trading in stocks, bonds, or other investment securities, except bonds and notes of the Government of the United States." The renewal of the suggestion is considered by this committee as untimely and unnecessary, certainly while the present volume of eligible paper and of government securities is available.

It should be recalled that the Federal Reserve Board possesses considerable power, within the limitations of the Act, to admit to the rediscount privilege desirable kinds of paper. When and if the requirements of industry and commerce make necessary an added volume of eligible paper or it is deemed desirable in the interest of

the smooth working of the System, eligibility regulations can probably be sufficiently broadened without an amendment to the Federal Reserve Act.

It is sometimes contended that reserve credit extended by means of rediscount operations meets the requirements of the country much more effectively than reserve credit released by the reserve banks' open market purchases. This contention is based upon the fact that rediscounts are made to banks situated in every part of the country, whereas the bulk of the open market operations, both those made at the initiative of member banks as well as those conducted at the discretion of the reserve banks, must be confined to the central money markets of the country, and mainly to New York City. But owing to the fluidity of credit, an increase in its volume at any one point tends to furnish additional funds to those parts of the country where there are additional demands. The determination of which particular types of earning assets, whether rediscounts, acceptances, or government securities, most effectively may be increased or decreased is a matter of detail. The fundamental question is whether it is desirable that *more* or *less* reserve credit be employed.

Open market dealings in government securities are frequently subjected to the special objection that they bring the reserve banks into competition with member banks and on occasions tend to ease money rates to such an extent as to impair the profits of member banks. But these open market operations of the reserve banks would not and do not exert normally more than a limited influence upon the course of the money market. Lending rates, and in turn the profits realized by banks, are primarily determined by far more fundamental considerations, such as the volume of current savings seeking investment and the demand coming from the business community for credit in all its forms. A downward tendency of rates can be accelerated through these open market operations, but persistently low rates during a period of active business can only be explained as an outcome of a continuing abundance of capital seeking investment relative to available opportunities for its employment. Certainly this was true when reserve bank operations were confined within narrow limits as in some recent years.

In the determination of open market policies the reserve banks

Relative
Effectiveness
of Rediscounts
and Open
Market
Operations.
See Auxiliary
No. II.

Competition with
Member Banks.
See Auxiliary
No. II.

should not allow considerations of their own earnings or those of member banks to exert a controlling influence. The possible unfavorable effect of these operations upon the earnings of commercial banks is clearly a factor, but not of major importance. Whenever the policies of the reserve banks, as well as more fundamental influences, are tending to bring about a general lowering of the cost of credit to the business community, it should be recognized that both member and non-member banks are warranted in adjusting themselves to the situation by the adoption of a more elastic policy with regard to the rates of interest they pay to depositors.

The committee concludes that:

1. Rediscount rate changes alone cannot at all times be relied upon to provide the country with the desired volume of reserve credit.

2. Open market operations are necessary and should be continued.

3. The recognized requirements of a bill market preclude the predominance of the System indefinitely in this market, as would be the case if open market operations were confined to acceptances. The volume of acceptances, readily available for purchase, moreover, would be so small in some periods as to hamper the System's operations.

4. Dealings in government securities therefore are required to supplement the rediscount and acceptance activities of the reserve banks in order that the total volume of reserve credit may be adjusted properly to the country's needs.

5. It is not imperative that the rediscount rates of reserve banks should be continuously above the current lending rates for ordinary commercial transactions.

6. The inclusion of bonds, other than those of the United States government, as security for notes rediscounted by the reserve banks, is considered as untimely and unnecessary, certainly while the present volume of eligible paper and of United States government securities is available.

VI

Reserve Credit Policy

(An auxiliary statement upon Guides to Reserve Credit Policy—Number III—and the one upon The Structure and Control of the Reserve System—Number IV—develop this subject in somewhat greater detail.)

IN devising rules for the regulation of the credit activities of the reserve banks, limitations upon the power and influence which they can exercise are a factor of major importance. The reserve banks have no direct contacts with individual borrowers and aside from the discretionary power to insist that rediscounts will not be granted unless the member bank is in sound condition—a power which this committee believes should be exercised with even greater frequency than in the past—the reserve banks are in large measure powerless to determine the uses that member banks make of credit acquired from reserve banks. Neither do the reserve banks exercise nearly as much discretion as is customarily believed in determining which member banks are to obtain the use of reserve credit. It is true that applications to rediscount or offers to sell acceptances to the reserve banks may be accepted or rejected. Unless, however, the bank requesting rediscounts is borrowing too extensively or continuously, most of its applications will be accepted as a matter of routine; and under their acceptance policy the reserve banks for many years took all prime bills offered and still give the market some support.

Even the denial of an application cannot prevent funds which emanate from the reserve banks from tending to flow to communities where the demand is greatest. By means of the purchase and sale of government securities the reserve banks can exercise some discretion regarding the total volume of their credit emissions. But the distribution of these funds throughout the country is determined by the operation of economic laws and financial customs and herein the power of the reserve banks is decidedly restricted. The reserve banks' influence is in high degree confined to determining the volume of reserve credit which is to be released, and there are some situations in which even their volume powers are subject to decided limi-

tations. One such situation would be that in which funds released by purchases of government securities would be employed to pay off rediscount indebtedness. Even when the reserve banks are in the most favorable position as regards regulation of the volume of reserve credit, it must still be remembered that reserve credit released is merely supplementary to the supply directly within the control of the member banks, and customarily gets into use through the initiative of private financial institutions.

It is further essential to recognize that, even if the reserve banks possessed greater powers than they actually do over the activities of member banks, they could not be held responsible for improper uses of credit. Nor can all of our economic ills be cured by the credit policies of individual member banks. The demand for bank credit springs from the initiative of customers and owing to highly competitive banking conditions the banker cannot exercise complete control over every such demand. While the reserve banks may do much to encourage the proper use of reserve credit by member institutions, their powers are largely of a quantitative character. In employing reserve credit to supplement that of member banks, the reserve banks are highly restricted by the general state of business and prevailing financial practices. It should not be expected that the reserve banks can exercise such close supervision over the member banks as to prevent unwise extension of credit by them. With the member banks rests the primary obligation of conservative banking, and it would not behoove them, if they contribute to credit over-extension, to object to the officials of the System pointing to the need for curtailment. There should be no unreasonable expectation that the most ideally administered banking system can overcome all misdirections of business enterprise.

The reserve banks were created to supplement and in a measure to regulate the credit operations of their members to the end that business and commerce might be more effectively served. It is, of course, true that as supplementary institutions the reserve banks may make mistakes in their analyses of legitimate credit needs. But legislative restrictions cannot be depended upon to any great extent to reduce or prevent such errors. Dependence must be reposed in the

discretion of prudent management, proceeding upon the basis of admittedly sound principles.

The reserve banks should not be operated to derive maximum earnings. The full and regular employment of their lending powers would not leave sufficient reserve to cope with the very emergency situations with which they were designed to deal. Such a practice would not contribute the desired steadying influence upon the business situation. Fortunately, the idea that reserve banks should be operated to produce large and regular earnings is coming to be pretty generally discredited. There is now widespread acceptance of the idea that the reserve banks are service institutions; that they were not created for profit making. In the early days of the System it appeared likely that some or all of the reserve banks might have to operate at a loss over a period of years. This possibility was viewed with equanimity by the founders. It developed, however, that the banks derived large earnings as an incident to the necessary expansion of their activities during the war years and those immediately succeeding. Substantial surplus accounts were built up and the System thus fortified for any period of little or no earnings. There is even less reason now than formerly for any policy of earnings for earnings' sake. There should be no disposition to test the ability of reserve bank management by the volume of earnings.

Fixing the rate of rediscount is a policy function which attracts considerable public attention. Changes in the rediscount rates of the regional banks are watched carefully. There are, of course, many factors entering into decisions by the officials of the System with reference to changes in the federal reserve rediscount rate. The guides which are followed are numerous and those which are major determinants at one time may play little or no part at another.

One question of general application which has emerged with respect to the rediscount rate is whether or not it should be uniform throughout the country. Because the Federal Reserve Board's jurisdiction is nation-wide, any tendency to establish similar rediscount schedules in the different districts operates to increase the Board's rate influence. If the principle is accepted that the cost to member banks of securing reserve credit should be the same in one district as in another, each district directorate is put in a position wherein

Uniform
Rediscount
Rate. See
Auxiliary
No. IV.

local needs may have to be subordinated to presumed national requirements. It is true, of course, that the needs of the country as a single unit could be appraised by the cooperative counsel of different district officers, but only the Federal Reserve Board is endowed by statute with authority to speak for the whole System.

In recent years there may have been comparatively little need of setting up different rate schedules in the various districts. As is stated in another part of the report, member banks, since 1920, have been generally desirous of avoiding continuous indebtedness to the reserve banks. In this situation it has not often appeared necessary to employ rate increases as a means of imposing serious restraints upon the volume of rediscounts.

It is not certain, however, that the disinclination to rediscount will always be as widespread as it has been, and occasions probably will arise in some districts which will develop a special need of utilizing rate increases to restrict the demand for reserve accommodation. In such a situation each district bank should be reasonably free to act with respect to its own requirements, and it should not be obliged to delay its rate increase until the need of rate increases is generally experienced. The continuation of low rates in a period of active rediscount demand might thrust upon the district directors the responsibility of making an embarrassingly large number of direct refusals.

No defense for a uniform rate schedule can be had by appealing to European precedent. The area of the United States is substantially similar to that of Europe, and there are many independently administered central banks in Europe. If the map of the United States is superimposed upon Europe, with San Francisco upon London, New York falls in Asia. Credit requirements may necessitate as clearly differences in rediscount rate schedules between New York and Minneapolis as between London and Rome.

Uniformly to subordinate local needs to supposed national considerations in the absence of clear emergency is inconsistent with the theory of the regional system. This committee disapproves of a policy favoring a single rate of rediscount as a principle of Reserve System operation.

A second question which has been the subject of considerable discussion is whether or not the power of initiating a rate change should properly be exercised by the Federal Reserve Board or by a regional bank board. The Federal Reserve Act specifies that the rates of rediscount shall be fixed "with a view of accommodating commerce and business." It gives to each federal reserve bank power to establish rates of rediscount, but makes them "subject to review and determination of the Federal Reserve Board." Believing as we do that conditions in this country do not warrant a policy favoring a uniform rediscount rate, and strongly supporting the fullest measure of local autonomy among the regional banks, we are of the opinion that the initiation of rate changes normally should be left to the district directorates, power remaining with the Federal Reserve Board to veto changes. Only in the interest of national coordination and in emergency situations should the Board initiate rate changes. It is to be recognized also that the persistent refusal of the Board to permit a change in rate can be as violative of district autonomy as the actual forcing of a rate change.

**Initiation of
Rate Change.
See Auxiliary
No. IV.**

It must be admitted that each regional bank is swayed in its judgments by the problems of its district and cannot be expected to hold so impartial an attitude as would the Federal Reserve Board representing the needs of the whole country. District banks, therefore, if given unrestricted freedom in the matter of rediscount rates might precipitate discrepancies and inequalities of a disturbing nature. If the Federal Reserve Board exercises its power to act in presumed national emergencies the country has a right to assume that such action will be taken only after conference with regional bank directorates and after full consideration of the resulting influence of its act upon the commerce and industry of the districts especially affected. The committee does not believe the proper solution of this difficulty lies in legislative enactment.

It is sometimes suggested that the reserve ratio should be the predominant factor in the determination of the rediscount rate. Owing particularly to the huge influx of gold since 1920, the reserve ratio of the reserve banks has been high, seldom sinking below seventy per cent. It cannot now be employed as a serviceable guide in deter-

**The Reserve
Ratio as a
Credit Guide.
See Auxiliary
No. III.**

mining the desirable volume of reserve credit. Even if the reserve ratio were much lower than it is now, its changes would not supply a satisfactory guide to policy. Changes in the ratio may not agree either in direction or in intensity with the country's need for more or less credit. The volume of gold imports, and consequently the reserve ratio, is influenced by the policies of the reserve banks. By increasing or decreasing open-market purchases, money rates may be eased or hardened to some extent. Gold imports are retarded by low money rates in the financial centers and are encouraged by high rates. Since the reserve activities determine to some extent changes in the gold holdings of the reserve banks, the height of the reserve ratio does not supply a clear guide to credit policy.

Stabilized Prices
as a Credit
Control. See
Auxiliary
No. III.

There is also advocacy of dependence upon index numbers of commodity prices as a valuable guide to reserve credit policy. This proposal received considerable attention during the pendency of the so-called Strong Bill in Congress. There may arise situations in which it would be generally agreed that the movement of prices might constitute the most important single factor. A pronounced rise of prices continuing for some time after labor was fully employed, and when industrial output, therefore, was not being materially increased, would indicate that bank credit was being too liberally employed and that the volume of reserve credit should be reduced. On the other hand, a pronounced decline in prices accompanied by rising rates in the money market would serve to indicate credit pressure and the need of supplying more reserve credit. But the significance of moderate changes in prices, either in an upward or downward direction, is difficult to diagnose. When the cause of these milder fluctuations is not clear and uniform in its influence, it is not certain whether and to what extent credit should be employed as a counteracting agent. Moderate price changes are but one, and not always the most important, of the various factors of which account should be taken in the determination of the lending policies of the reserve banks.

Among the other factors are diverse fluctuations in the prices of various groups or even of single commodities, the degree of activity in trade, the accumulation of inventories, tendencies in the financing of industry, including the financing of durable consumer

goods, activity and conditions in the real estate and building markets, the situation in individual commodity markets, the course of long-time interest rates, and finally the industrial and financial position in important foreign countries.

A variety of considerations, which will have different degrees of weight at different times, must necessarily influence the general credit policies of the reserve banks. In a period of business depression or inactivity it may be felt that some stimulus to business can be given by that ease in the money market which may be expected to follow an increase in open market purchases and lowered rates of rediscount. Such seems to have been one of the motives impelling the reserve banks to action at times. On other occasions, it would appear that the reserve banks have given thought to the desirability of providing themselves with a sufficient volume of securities to be able to exert a restraining influence upon the credit situation if that should become desirable. Such purchases may be made at times when it is believed that a moderate increase in the volume of reserve bank credit will have no pronounced influence upon the money market.

Again, the foreign situation may bulk large. During the last few years, when foreign countries have been stabilizing currencies and restoring the gold standard, it has been desirable in the general interest that no unnecessary pressure upon important foreign money markets should be exerted from this side. The accentuation of ease in the money market, if that involved no serious risk of undesirable domestic developments, was clearly advantageous since it would aid in the restoration of normal monetary conditions in other countries.

Indeed, to avoid undesirable domestic developments, there may be positive necessity to contribute to economic recovery abroad. Without stabilization of important foreign currencies there inevitably would be a narrower market for our exports. This would be especially serious in periods of increasing domestic production, when foreign outlets for goods are of the highest importance in preventing that congestion in our domestic markets which would tend to lower prices and reduce profits.

At times widespread speculative tendencies of the public, as reflected in the course of the real estate, commodity or security markets, may make such demands upon the credit resources of the country as

to impair their liquidity or dislocate the supply available for undertakings involving a normal business risk or unduly increase its cost.

Important price movements in these markets may arise from many causes other than increase or decrease in the volume of money or credit. Questionable price movements, however, that are largely resultant from an insufficient or over-abundant money or credit supply are clearly of concern to the System, since it possesses some power to influence the quantity and the cost of that supply.

When price movements in any of these fields are largely the result of masses of bank customers indulging their speculative tendencies, the System may not wisely avoid seeking or urging such adjustments in the credit supply or in the directions of the use of credit as will assist in restoring the proper balance between the volume of credit used for speculative purposes and that used in accommodation of business and industry.

The extent to which security market developments should influence reserve policies is one of the most difficult problems of reserve administration. Events and conditions in the security markets are per se of little concern to the reserve banks. But possible repercussions of security market developments upon other industry must be taken into account by the reserve banks because of their interest in basic conditions. They must weigh indications of developments which may later affect industry, commerce and agriculture. Furthermore, security market uses of credit, if permitted to develop unchecked, may tend either to deprive industry, commerce and agriculture of credit or to increase money rates.

Because of the rapid turnover of funds on the Street, a considerable expansion of stock market operations may take place without depriving other business of credit to any large extent. But the volume of security speculation may increase on occasion out of proportion either to the normal growth of the country, or to the credit volume justified by sound business expansion.

The prices of securities may continue to rise in the face of the most sharp advances in money rates and those who purchase stocks with the purpose of turning them quickly in an advancing market may be little deterred by higher credit costs. The advance in money rates, applying as it does to well collateralized loans, has a powerful

Volume of
Speculation as
a Guide. See
Auxiliary
No. VIII.

influence not only in pulling funds from domestic sources but also from abroad. The international flow of gold may be affected to such an extent as to minimize the power of any restrictive measures which the reserve banks initiate. To the extent, furthermore, that Street loans are for the account of other than banking corporations, a situation may develop in which a superstructure of speculation comes to be built upon funds which may be withdrawn suddenly and with little warning.

Inasmuch as appeal would necessarily be made to the member banks of the System, and even to the reserve banks, to replace funds thus withdrawn in order to avert a general collapse of confidence, the reserve banks do have an interest in the events which lead up to such a condition. Indeed, stock market declines of considerable proportions occurring for almost any reason may threaten to produce such repercussions upon industry and commerce as to require that banking support be given to efforts to secure a more orderly security market. Member banks and reserve banks would be well advised to anticipate the strain which may later be thrust upon their resources and endeavor by all their powers to prevent the emergence of important money-market dislocations.

Once well under way a condition of excessive speculation may be difficult to correct. In recent years of widespread public indulgence in security speculation, many analysts have regarded the situation primarily as a belated manifestation of too abundant a supply of bank credit in earlier months and years. In these earlier periods of time the superabundance of credit may not have reported itself immediately either in rising prices or in increasing trade activity. But the surplus supply of credit had sooner or later to find an outlet and when it did begin to emerge in security operations a situation developed in which immediate correction was difficult, if not impossible.

Another factor complicating the problem has been the impossibility of determining just how much credit security financing alone deserves. Security operations may not signify an enlargement in the total credit transactions of the country so much as merely a substitution of capital issues for bank credit directly obtained. The net result of experience derived in late years of Reserve System operation

seems to point sharply to two principles of policy. In the first place, care should be taken to prevent the creation of an excessive supply of credit in general, out of which speculative excesses are likely to develop. In the second place, vigorous rather than mild measures of restraint are required to bring the situation under control when speculation assumes unhealthy dimensions as tested by the unwillingness to need the significance of rising money rates.

Throughout the last five years the factors reviewed above as well as other considerations doubtless have played a part in the determination of the open market activities and the rediscount policies of the reserve banks. Similarly, in the future a variety of influences must determine the course which reserve banks will follow in the formulation of their general credit policies.

In conclusion it may be repeated that there is no one guide to which primary significance must be invariably attached. The elements which create a financial situation are constantly being combined in different proportions and it is not possible to state in advance which offer the key to the understanding of the problem. The determination of desirable policy in confused and complicated situations obviously necessitates the exercise of the most far-sighted management. The experience of recent years has been especially pointed in illustrating the mixed elements which must be considered in determining credit policy, and the importance which a single one of them can assume upon occasion.

Your committee concludes that:

1. In respect of the autonomous character of the district banks, the Federal Reserve Board should not exercise its powers of initiation of rediscount rates except after conference with regional bank directorates and after full consideration of the resulting influence of its act upon the commerce and industry of the districts.
2. In the employment of the resources of the reserve banks no single guiding principle is available and no specific object, such as price stability, should be imposed by legislation as a definite duty upon the Reserve Board and the reserve banks.
3. It is desirable that Federal Reserve authorities take into account the course of speculation so far as it may involve at any one time immediate or prospective strain upon the credit operations of the reserve or member banks.
4. A policy favoring a uniform rate of rediscount as a principle of Reserve System operation should be disapproved.

VII

Management

(In an auxiliary statement upon The Structure and Control of the Reserve System—Number IV—certain aspects of the management problem are treated more fully.)

IN this report the committee has endeavored to stress as a factor of utmost importance the necessity for capable management throughout the System. Upon capacity for good management and its increasing efficiency, as distinguished from legislative devices, must now rest the well-being of the System and its ability to serve to the limit the high purposes for which it was created in the interest of all the people.

No banking system is self-operating, no matter how perfect its structure, nor how smooth its working parts. This is especially true of central or supplementary banking systems; and peculiarly so of the Federal Reserve System.

The provisions of the Federal Reserve Act relating to the management of the reserve banks and of the System as a whole are among its most important features. Certain unusual management problems are encountered in the Reserve System. The special needs of twelve, largely autonomous districts must be met, while at the same time the policies and activities of district organizations must be blended into a national policy conceived in the interest of long-sustained business stability. In the direction of meeting this two-fold requirement the Federal Reserve Act provides for a balanced system of administration, wherein the activities and policies of the district banks are integrated with those of the Federal Reserve Board. The function of coordinating the activities in a national way must rest with the Federal Reserve Board.

It is obvious that the Board cannot concern itself in any high degree with the minutiae of operation. The Board could not acquire such knowledge of local conditions as is required in passing upon the large number of rediscount applications which may be made by nearly nine thousand member banks. It can take action within the district only on important matters of an inter-district or national character.

No matter how judiciously the Board functions, however, efficient administration of the Reserve System depends to an important extent upon the activities of the district directorates and their officers. Their functions as regards the determination of rediscount rates and open market operations are of the greatest importance, and the large degree of autonomy wisely permitted them must be zealously guarded in the interest of proper servicing of district situations. It is encouraging that the district directors, representative of industry and commerce as well as of banking, are developing special knowledge and experience in these and other System matters. In this direction lies the proper offset to the natural tendency toward centralization noticeable at times in the conduct of the System. As directors of the district organizations are mainly within the selection of the member banks, a large measure of responsibility for the soundness of the System's operations rests upon the member banks. If these members, as occasionally happens, fail to select competent men as directors, the efficiency of the district bank may be impaired, since the directors determine the policies of the bank. District boards should consist uniformly of men of such recognized ability that membership will be considered one of the highest business honors.

The Responsibility of the District Directors and Officers. See Auxiliary No. IV.

The responsible duties of the chairman of the board and the governor of a regional bank make it essential that those offices be filled by men of the widest experience in the field of financial administration. The chairman of the board is an appointee of the Federal Reserve Board at Washington, and with it rests the responsibility for selection of men adequately equipped to perform the duties of the office. The governor of a federal reserve bank is appointed by its board of directors, thus emphasizing in operation the autonomous character of the bank, which should be insured by the fact that six of the nine directors of each bank are elected by the member banks of the district and form a two-thirds majority of the Board.

A Strong Federal Reserve Board is Needed. See Auxiliary No. IV.

The emphasis upon the necessity of an efficient district administration does not mean that an able Federal Reserve Board is not required. Although the Board's executive powers are exercised chiefly in emergency situations, its very detachment from daily district administration and its domestic and foreign sources of information furnish a background which should prove of great value in

judging financial trends and in exercising its persuasive, interpretative, and harmonizing influences which are always imperative in the continuous task of adapting the total volume of reserve credit to the requirements of the country as a whole. This committee does not accept the opinion that even with the most competent district management the System can be properly administered without the service of a strong and able Board.

The Board is not and cannot be the arbitrary dictator over credit and business conditions which it is sometimes pictured to be. The Federal Reserve Act, however, does confer upon it discretionary powers of no mean degree. Federal reserve notes are issued at the discretion of the Federal Reserve Board. It may grant in whole or in part, or reject entirely, applications from the regional reserve banks for notes. It has the authority to review and determine rediscount rates which are established by regional reserve banks. It has the power of determining or defining the character of paper eligible for discount, within the meaning of the Act. It makes regulations governing open market transactions and other System operations. It can order federal reserve banks to establish accounts in foreign countries, to appoint correspondents or establish agencies, as well as to open accounts here for foreign banks.

The Board is empowered to examine the accounts, books and affairs of each federal reserve bank and of each member bank, and to require such statements and reports as it may deem necessary. It may permit or require one federal reserve bank to rediscount the discounted paper of another federal reserve bank. It may suspend reserve requirements specified in the Act. It can classify cities as reserve or central reserve cities. It can suspend or remove any officer or director of any federal reserve bank. It can require the writing off of doubtful or worthless assets upon the books of federal reserve banks. It can suspend the operations of a federal reserve bank, take possession thereof, or liquidate or reorganize it. It can authorize national banks to act in fiduciary capacity. It is authorized to "exercise general supervision over" the reserve banks.

A number of ideas have been considered by the committee relative to methods of selection of the members of the Federal Reserve Board. Suggestions have been offered that nominations be made by

the Federal Advisory Council or by district directors or other agencies. Proposals which received favor with some members of the committee involved the appointment by the President of a few members of the Board and the election of the others by district directorates. One such plan proposed an increase in the number of Board members to nine, three to be appointed by the President and the remaining six to be chosen one each by the joint vote of the directors of federal reserve banks in two contiguous districts. The consensus of opinion is that no immediate necessity demands a change from the present system of Presidential appointment, without any formal machinery of nominations.

It is recognized that the selection of highly competent men presents a number of difficulties:

a. Because the duties are supervisory, coordinating and analytical rather than of direct executive character.

b. Because the salary, which all too often in the public mind becomes the measuring rod of importance of service, is so sadly out of line with the compensation paid officers of the regional banks.

c. Because the relative rank and dignity of members of the Board in official life is clouded and uncertain by the dependence upon the Treasury for its housing and the possible interpretation of the wording of the law that the Board is merely a bureau of the Treasury Department.

It is the belief of this committee that if its recommendations can be made effective it will become evident that no public service is of greater importance to the whole country than the Board's close contact with and understanding of all the currents of domestic and international credit and finance; that this function supported by the powers now reposed in the Board by the Federal Reserve Act will attract the services of a group of men willing to devote their experience and ripe judgment to all of those intricate and important relations which exist in this field.

To encourage able men to accept the sacrifice which Board membership involves, every effort should be made to develop the dignity and independence of the Board and to improve its working conditions. To increase the strength of the Board we believe that the

prestige of the position of its Governor should be enhanced. We are convinced that the Board can not possibly be expected to meet the anticipations of the framers of the Reserve Act, while it continues to include the Secretary of the Treasury as its Chairman, over-shadowing the Governor. Indeed, your committee is convinced of the inadvisability of including the Secretary of the Treasury as a member of the Board.*

On general principles, the exclusion of Treasury representation on the Reserve Board would seem to be desirable because the Treasury is a frequent borrower and is consequently prone to attach major importance in the determination of credit policies to the maintenance of easy conditions in the money market that will facilitate the placing of loans at minimum rates. This consideration, as is well known, was given undue weight for a year and more after the Armistice, and, apparently, though with less serious consequences, on some subsequent occasions.

This proposal—to free the Reserve Board from Treasury influence—it should be clearly understood, is not urged on the ground that that influence has commonly been exerted in support of unwise policies. By no means! Treasury influence at times undoubtedly has been a factor in securing effective action without unreasonable delay. Even so, it is evident that representation of the Treasury on the Board has not been conducive to realization of that personal responsibility, independence of action, and freedom from administration influence which the country has the right to expect.

It is hardly going too far to say that since the establishment of the Reserve System the Treasury Department to a considerable extent has overshadowed the Board and has tended, consciously or unconsciously, to reduce the Board to the status of a departmental bureau. As members of the Cabinet, holding an historic office of great responsibility, it is to be presumed that Secretaries of the Treasury will be in the future, as they have been in the past, men of wide experience and strong character, enjoying widespread public confidence. It is precisely for this reason that, if a strong Board as a whole is to be secured, the Secretary of the Treasury should not be one of its members.

*Mr. Clause and Mr. Hecht do not agree with this view.

More particularly, the Chairmanship of the Secretary must obviously render the post of Governor of the Board less attractive to a man of executive capacity and energetic temperament. In the judgment of your committee, the dominant personality on the Board should be the Governor, and he, not the Secretary of the Treasury, should be its Chairman. The elimination of the Secretary of the Treasury from membership, or at least from the Chairmanship, will surely assist in making the position of Governor of the Board more distinguished and influential. Enhancement of the importance of this office is necessary if men of the highest capacity are to be secured and if Board membership in general is to be more attractive. This proposal is not to be understood to involve any reflection upon the present Secretary of the Treasury. On the contrary, his ability and the undoubted high character of his public service stamp his administration as one of the ablest the country has ever enjoyed. It is because of his very incumbency that such a proposal can be made without the restraints that would be necessary were a lesser man in office.

There should, however, be some rather close interrelationship between the Federal Reserve Board and the Treasury Department, and it is inevitable that in the very nature of things there would be. To be independent is not to be less cooperative. There could exist, and undoubtedly would, a close contact and splendid cooperation between the Department and the Board, without the official connection we suggest be dissolved. There are important banks of issue abroad which have no representatives of the government upon their governing boards.

The committee has reviewed current proposals that instead of the Secretary of the Treasury being a member of the Board, the Undersecretary should be, but believes that this is not a practical suggestion. The committee is convinced of the undesirability of the Secretary's membership on the Board. While we do not insist that there is an immediate and pressing need for legislation relieving the Secretary of the Treasury from his duties as a member of the Board, we do believe that an early change in the Chairmanship of the Board is desirable.

This committee is further of the opinion that there should be a thoroughgoing survey of the office of Comptroller of the Currency

and its relationships to the Treasury Department and to the Federal Reserve Board to see if it would not be feasible to make such a transfer as would bring the duties and activities of that office under the purview of the Federal Reserve Board rather than continue them under the Treasury. While recognizing the force of some of the practical difficulties, the committee nevertheless feels that more is to be said for the divorce of the office of the Comptroller of the Currency from the Treasury Department than against that proposition.

As a further means of developing the independent status of the Board, that body should be adequately housed in a special building of its own. This building should provide adequate facilities for the Board's analytical and research work, now being done at a distance from the Treasury Building where the Board is housed.

Board salaries are now palpably inadequate and incommensurate with those which necessarily must be paid to both the reserve agents and the governors of the district banks. Some of the latter receive three and four times as much as members of the Federal Reserve Board. Their compensation must approach, at least, the salaries paid in the field of general banking, from which Federal Reserve management must be drawn. This committee recommends that salaries be increased from the present figure of \$12,000 to a minimum of \$30,000 per annum for the Governor of the Board and \$25,000 for the other members. Objection to these salary increases should not be made on account of conditions existing in the general governmental service. It is to be noted that salaries as well as other expenses of the Board are defrayed, as would be the cost of a separate building, from assessments upon the reserve banks and not upon the United States Treasury.

It is not enough that there be efficient district administration plus a strong Federal Reserve Board, unless the two work in unison. Just as the regional reserve banks should maintain constant and intimate contact with member banks, so also should the Federal Reserve Board have first-hand knowledge of situations within the regional banks and their branches. Frequent visits to the reserve banks would assist the members of the Washington Board to familiarize themselves with the practical problems of regional administration. By

such contacts they can also assist the officers of the district banks through discussion of the policies of the Board and the reasons for their adoption.

This committee concludes that:

1. Successful management in administration of the Federal Reserve System must always depend more upon the individual ability of its officers and governing boards to meet changing conditions than upon limitations of powers by legislation.

2. Efficient management of each district bank requires that:

- a. Member banks select competent men for reserve bank directors.

- b. District directors exert every effort to select able governors.

3. Provision should be made to increase the attractiveness of Board membership and develop the influence and independence of the Board by:

- a. Enhancing the importance of the position of Governor of the Board by making him Chairman.

- b. Housing the Board in a building of its own.

- c. Increasing the salaries of the Governor and members of the Federal Reserve Board to compare more favorably with the salaries paid the principal administrative officers of the reserve banks.

4. Thoroughgoing consideration should be given to the relations of the Treasury to the Federal Reserve Board, especially with respect to discontinuing the membership of the Secretary on the Board, as well as to the desirability of a change in the status of the office of the Comptroller of the Currency to bring that office more directly under the purview of the Board.

VIII

Relationships With Member Banks

(In an auxiliary statement upon The Rediscount Operations of the Reserve Banks—Number I—and another auxiliary statement upon Membership of the Reserve System—Number VII—some of the matters referred to in this section are considered more fully.)

WHILE the establishment of the reserve banks has enormously improved our banking system as a whole, it has accomplished little in the way of reducing the number of bank failures. There has been a discreditable large number of member as well as non-member bank failures in the recent past. These failures are in part a result of the inflationary methods of war finance, for which the reserve banks were not responsible, and in part the outcome of the acute agricultural depression which seems to have been due fundamentally to its over-development and maladjustment throughout the world. The large number of failures is also to be attributed to an excessive number of banks in the agricultural sections of the country—many of them of little financial strength and managed by unskilled officers. The ability of management to avoid failure is evidenced by the fact that conservatively operated banks, situated in rural communities of strong banking competition, succeeded in weathering the storm developed by the inflation.

As between member and non-member banks, the only essential change effected by the establishment of the Federal Reserve System was to increase the borrowing power of the member banks. Limitations on the types of assets available for rediscount at reserve banks have not served to confine borrowings within safe limits. They have simply served to transfer to the reserve banks a portion of the more liquid assets of the borrowing banks. Unless the added loans made by the member bank are as good as the paper discounted at the reserve bank, the position of the borrowing bank is obviously changed for the worse. Proper consideration of the interests of the depositors of member banks places upon the reserve banks responsibility for taking account of the general condition and character of the manage-

ment of member banks, as well as the situation in the locality in which the bank is operating, when extending any appreciable accommodation by way of rediscount.

There are difficulties to be encountered in the execution of such a policy. The member bank ordinarily requests reserve credit in order to restore its reserve balance which has been depleted as a result of all its operations and the use its depositors are making of their balances. The reserve bank is the principal channel through which checks drawn on its members are presented for payment. These clearing operations deplete the members' reserves. To make up such deficiencies, the reserve bank is inclined, naturally, when a member presents good paper, to grant the accommodation requested. The reserve banks cannot, without notice, establish new and rigid practices in the extension of credit to member banks. On the other hand, if it is made clear to all members that the character of their management and their general condition will be the primary factors in the extension of accommodation, member banks will conduct their affairs with reference to these requirements. By this means, the reserve banks can come to exert a steady and powerful influence in the direction of the maintenance of sound banking practices on the part of member banks.

**Rediscounting
Paper of a
Failing Bank.
See Auxiliary
No. I.**

Most bank failures are the outcome of unsound banking policies followed for months and even years. There is ample time in most instances for corrective measures to be effectively applied and it is believed that the reserve banks are in position to exert a large influence in this direction as an incident of their rediscounting relations with borrowing banks.

Another difficulty of basing rediscount advances upon the condition of the applying bank has grown out of this country's limited experience in the field of central banking. Undoubtedly too much has been expected of the reserve banks with regard to servicing distressed banks in emergency situations. When an emergency is acute and general, it will no doubt be incumbent upon the reserve banks to offer their credit more liberally. But member banks in their relations with reserve banks should come to understand that the avoidance of a strained condition is much more important normally than the alleviation of strain after the situation has become acute. Insofar

as the reserve banks have been obliged to resort to restrictive measures in order to maintain and improve member bank solvency, their activities should command support from their members. If permitted thus to operate, the reserve banks can come to exert a steady and powerful influence in the direction of the maintenance of sound banking practices on the part of member banks.

It is gratifying to note that increasing attention is being given to this important aspect of reserve bank operations by all of the reserve banks.

This committee concludes that the granting of rediscount accommodations by reserve banks should depend upon the general condition of member banks and the effect of granting the rediscount upon the safety of depositors as well as upon the character of the paper which the applying bank tenders.

IX

The Public Relations of the Reserve Banks

THROUGHOUT its report, this committee has insisted that the efficiency of the Reserve System must depend upon wise administration. On this account, it has opposed the employment of legislative devices to restrict narrowly the powers of the reserve banks.

The grant of liberal powers to the reserve banks necessarily requires that there be complete recognition by them of their public responsibilities. Neither the public in general, nor Congress, will be content to rely solely upon the probability that the administration will always be composed of far-sighted men. The activities of the reserve banks must be such as to insure confidence in the System's general policies. Such confidence cannot be gained unless the proper type of criticism is stimulated.

To insure the desirable type of criticism, it is essential that the public be provided with ample information relative to the activities of the reserve banks. The amount of valuable credit information, statistical and otherwise, supplied by the Federal Reserve System is far beyond that furnished by foreign central banks. For this accomplishment, the reserve administration is to be commended. But

in providing the country with official or semi-official explanations of the basic purposes of major policies, much yet remains to be done.

The scheme of twelve regional banks and the division of responsibility between the Federal Reserve Board and the district officials increases the difficulty of supplying the public with the desired interpretations of reserve policies. It is to be recognized that various officials may support the same measure from different points of view and that to secure agreement upon the factors to be emphasized may create discord within the System. The further fact that a certain measure might accomplish one useful purpose, but not precisely that originally avowed, must also serve to retard explanation.

But despite the difficulties attendant upon complete statements of intent, no secretive policy will succeed in securing approval for the reposal in the reserve administration of a large degree of discretionary power. An ill-informed public will demand precise statutory limitations. Without ample knowledge, public criticism cannot be intelligent and beneficial. The more abundant the information and the sharper drawn the issues, the less fertile becomes the field in which charges of ulterior motives can be sown. When ignorance abounds, the arena belongs to the careless, the radical, and the irresponsible.

With general discussion of reserve problems lifted to a higher plane, ill-advised critics will find it more difficult to secure an audience of intelligent men. Neither should there be too great apprehension regarding the inevitability of frequent reversals of policy. Thoughtful men understand the imponderable character of most credit problems and they will not demand that the views of reserve officials as stated on various occasions agree precisely.

The explanations and interpretations advanced in the Federal Reserve Bulletin and in the annual reports of the Federal Reserve Board have been highly serviceable and beneficial. What appears to be required further is that on irregular occasions of important decisions, men who occupy prominent administrative positions in the System should seek to clarify their motives. By this it is not meant that there should be a newspaper release on every action. But in some recognized way, such as by addresses of the officials of the Federal Reserve Board and of the district banks, sufficient information

should be given about the determining factors in the situation so that intelligent men may be able to engage in frank and friendly criticism. It would be evidently advantageous if as a regular feature of reserve bank practice full and detailed publicity were given to the purposes and results of various policies after the situation with which they were concerned had developed to such a point as would make such a statement practicable.

This committee concludes that the grant of liberal legislative powers to the Reserve Board and to the reserve banks imposes upon them the responsibility of providing the public not only with an ample amount of factual and statistical credit information, but also with the means of determining the purposes of major policies. Much is yet to be accomplished in the way of supplying the public with an adequate amount of interpretative material.

There is need also for greater exchange of information and clear opinion within the System itself. The regional reserve banks should be thoroughly familiar with the policies of the Federal Reserve Board and the reasons therefor. Only thus can they be in a position to chart their own course and to enlighten the member banks. Not otherwise may there be expected the fullest comprehension of problems and solutions, with wholehearted and intelligent cooperation. There may be some justification upon occasions for not taking the entire public into confidence; there is little for lack of frankness between the Board and the reserve banks.

Although this committee undertook its detailed investigations with no prejudgment, it is gratified to note that the most important of its affirmative declarations require administrative rather than legislative solution. It recognizes the mechanical simplicity and structural soundness of the reserve banking system. Future alterations of its machinery will be, of course, required. But these should be initiated step by step out of proven experience. As we earlier stated, the prime essential is the development by the American business public of a sober and sympathetic spirit of criticism of the System's administrative policies. Toward this, the administration of the Federal Reserve System itself is in position to make the greatest contribution.

Nathan Adams
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 J. W. Arrington
 *Chellis A. Austin
 Sewell L. Avery
 Julius H. Barnes
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 Walter S. Bucklin
 James E. Caldwell
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 A. L. Humphrey
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 R. G. Rhett
 H. M. Robinson
 Levi L. Rue
 J. T. Scott
 Paul Shoup
 Frank L. Stevens
 Philip Stockton
 Henry B. Wilcox
 Daniel G. Wing
 Theodore Wold
 Matthew Woll
 Moorhead Wright

HARRY A. WHEELER, *Chairman.*
 JOHN JAY O'CONNOR, *Secretary.*

*Deceased.

Acknowledgment

Special mention should be made of the assistance given the committee by Professor O. M. W. Sprague of Harvard, who conferred at frequent intervals on all questions under review; Professor Harold L. Reed of Cornell, who assisted the committee full-time for more than a year, making valuable contributions to the Committee Report and undertaking the main work of drafting the auxiliary statements, and Professor Ray V. Leffler of Dartmouth, who prepared some special studies upon currency problems.

Mr. John Jay O'Connor, Manager of the Finance Department of the Chamber of Commerce of the United States, as Secretary of the Committee, and Mr. C. B. Upham of the Department staff, gave helpful assistance upon every phase of the undertaking. Mr. W. W. Stewart, formerly Director of Research and Statistics of the Federal Reserve Board, assisted in the formative period of the committee's work.

To them, to the members and staff of the Federal Reserve Board, and to directors and officers of the federal reserve banks and to many others, who in conferences or in correspondence aided in the work, the committee acknowledges its indebtedness.

Appendix to the Committee Report

HISTORY OF THE STUDY

Following the annual meeting of the Chamber of Commerce of the United States in May, 1925, the Board of Directors authorized a comprehensive study of the Federal Reserve System and its developments. During the year following, the preliminaries of the project were investigated, the general set-up was planned, study of some of the individual problems was begun, and a canvass of available personnel was made.

In the spring of 1926, the President of the Chamber invited a group of past presidents of the Chamber and other business men who are familiar with Chamber methods to consider the feasibility of organizing a Federal Reserve Study to be undertaken under the auspices of the Chamber. On May 8, 1926, the following gentlemen conferred with the President of the Chamber in Washington:

H. A. WHEELER, Vice-Chairman of the Board, The First National Bank of Chicago, Chicago, Ill.

JULIUS H. BARNES, President, Barnes-Ames Co., New York, N. Y.

FRED I. KENT, Director, Bankers Trust Co., New York, N. Y.

JOHN G. LONSDALE, President, Mercantile-Commerce Bank and Trust Co., St. Louis, Mo.

JAMES R. MACCALL, President, Lorraine Manufacturing Co., Pawtucket, R. I.

LEWIS E. PIERSON, Chairman of the Board, Irving Trust Co., New York, N. Y.

JOHN J. RASKOB, Vice-President, E. I. Dupont de Nemours, Wilmington, Del.

R. G. RHETT, President, Peoples First National Bank, Charleston, S. C.

Following this conference, the Board of Directors of the Chamber recommended a continuance of the investigation of important questions affecting the banking systems of the country, particularly proposals for changes in federal reserve law and practice and a better integration of the credit structure of the country. The President was authorized further to appoint the necessary committees, arrange for the necessary conferences and make the required budget adjustments.

During the progress of the committee study, the charters of the federal reserve banks were extended in February, 1927, for an indeterminate period. The first public discussion of charter renewal appeared in an article contributed by the Secretary of the Treasury, Andrew Mellon, to the May, 1925 issue of *NATION'S BUSINESS*, a publication of the Chamber of Commerce of the United States. At the time the Banking and Currency Bill was before Congress in 1913, the National Chamber, through referendum vote of its membership, went on record as favoring the automatic continuance of the proposed banking system until superseded by later legislation. Instead, the bill as enacted into law provided for twenty-year charters for the federal reserve banks. In affirmation of its earlier position the Chamber adopted a resolution at its Fourteenth Annual Meeting in 1926, reading as follows:

The Chamber of Commerce of the United States has a record of steadfast support of the Federal Reserve System and from the beginning has favored indeterminate or automatically renewable charters for the federal reserve banks.

American commerce and industry have taken the System's continuance for granted. To avoid any danger of unsettlement to business or disturbance of public confidence, the charters of the reserve banks should be extended without delay for an indefinite period until dissolution by Act of Congress or until forfeiture of franchise for violation of law. Extension should not be made dependent on the adoption of other amendments, however meritorious.

The Chamber campaigned vigorously for the legislation extending the charters of the reserve banks for an indeterminate period, and that provision was written into law on February 25, 1927, as a part of the so-called McFadden-Pepper Act.

The study was not inspired by any feeling that the Federal Reserve System was deficient in serving American business or that fundamental changes in law or practice were needed. It was more that the System had become indispensable to business progress and that business therefore had a vital interest in being in position to indorse its perpetuation, at the same time indicating, if possible, ways in which even better cooperation between banking and business might be developed.

As the President of the Chamber stated in his letter inviting the members of the Executive Committee of the Study to serve:

"It is not the hope of the Chamber that the inquiry will recommend modifications of the Federal Reserve Act, necessarily, or of the policies and practices of the federal reserve banks. It is rather the desire that all current suggestions for such modifications, and all serious criticisms of the System emanating from responsible sources, be appraised by a competent group.

"You will readily appreciate the importance of the Chamber and the business community being placed in a position to say, in regard to any pertinent criticism or suggestion concerning the System, that it has been the subject of special study of business men. It is apparent from the personnel we are inviting to participate in this inquiry that a nucleus is being sought of influential persons, well distributed over the country, to develop, as far as may be possible, a common viewpoint as regards the values of the System. Around this nucleus may later be summoned a National Conference . . . It is to be hoped that Congress shortly will provide for extension of the charters of the federal reserve banks. The foundation will then be laid for general recognition of the Federal Reserve System as a permanent institution. We desire to build firmly on such a foundation."

In addition to the Executive Committee under the direction of the general chairman of the entire project, Mr. Harry A. Wheeler, three other committees were organized. Under the chairmanship of Mr. Sewell L. Avery, Committee No. 2 was appointed to study the organization and structure of the Reserve System. Committee No. 3, under the chairmanship of Mr. John G. Lonsdale, had for its field of study reserves and note issues. Rediscounts and open market operations were given attention by Committee No. 4, under the chairmanship of Mr. Chellis A. Austin. The personnel of the committees will be found below.

After each committee had made its report, it was felt by the Executive Committee that one consolidated report should be made and placed before an advisory conference, made up of bankers and other business men, journalists, representatives of agriculture

and labor, economists and federal reserve officials, so that the committee might have the benefit of the thought of all groups and all sections focused upon the definite proposals made. Such a conference was held in June, 1928.

In the light of conference discussion and of subsequent events in the credit field, the Committee Report and the auxiliary statements were revised and presented to the Board of Directors of the Chamber, which ordered them printed for distribution in conjunction with a referendum of the organization members of the Chamber.

PERSONNEL

EXECUTIVE COMMITTEE

- | | |
|---|--|
| HARRY A. WHEELER, <i>Chairman</i> , Vice-Chairman of the Board, First National Bank of Chicago, Chicago, Illinois. | JOHN G. LONSDALE, <i>Chairman</i> , <i>Committee III</i> , President, Mercantile-Commerce Bank and Trust Company, St. Louis, Mo. |
| CHELLIS A. AUSTIN, <i>Chairman</i> , <i>Committee IV</i> , President, Equitable Trust Company, New York, N. Y. (Deceased) | JAMES R. MACCOLL, President, Lorraine Manufacturing Company, Pawtucket, R. I. |
| SEWELL L. AVERY, <i>Chairman</i> , <i>Committee II</i> , President, United States Gypsum Company, Chicago, Illinois. | JOHN J. RASKOB, Vice-President, E. I. Dupont de Nemours, Wilmington, Del. |
| JULIUS H. BARNES, President, Barnes-Ames Company, New York, N. Y. | R. G. RHETT, President, Peoples First National Bank, Charleston, S. C. |
| FRED I. KENT, Director, Bankers Trust Company, New York, N. Y. | H. M. ROBINSON, Chairman of the Board, Security-First National Bank of Los Angeles, Los Angeles, Calif. |
| MURRAY D. LINCOLN, Executive Secretary, Ohio Farm Bureau Federation, Columbus, Ohio. | MATTHEW WOLL, President, International Photo-Engravers Union of North America, Chicago, Ill. |
| CHARLES E. LOBDELL, Formerly Fiscal Agent, Federal Land and Intermediate Credit Banks, Washington, D. C. | |

COMMITTEE II

Charter and Structure

- | Federal Reserve District No. | Federal Reserve District No. |
|--|--|
| SEWELL L. AVERY, <i>Chairman</i> , President, United States Gypsum Company, Chicago, Illinois. | 3 LEVI L. RUE, Chairman of the Board, Philadelphia National Bank, Philadelphia, Pa. |
| 1 DANIEL G. WING, Chairman of the Board, The First National Bank of Boston, Boston, Mass. | 4 CHARLES A. HINSCH, Formerly President, Fifth-Third Union Trust Company, Cincinnati, Ohio. (Deceased) |
| 2 FRANK L. STEVENS, President, Stevens and Thompson Paper Company, North Hoosick, N. Y. | 5 JOHN W. ARRINGTON, President, Union Bleachery, Greenville, S. C. |

Federal
Reserve
District
No.

- 6 ROBERT F. MADDON, Chairman of the Executive Committee, First National Bank, Atlanta, Ga.
- 7 GEORGE A. RANNEY, Vice-President and Treasurer, International Harvester Company, Chicago, Ill.
- 8 F. C. RAND, President, International Shoe Company, St. Louis, Mo.
- 9 E. L. CARPENTER, President, Shevlin, Carpenter and Clarke Company, Minneapolis, Minn.

Federal
Reserve
District
No.

- 10 W. S. McLUCAS, Chairman of the Board, Commerce Trust Company, Kansas City, Mo.
- 11 J. T. SCOTT, President, First National Bank, Houston, Texas.
- 12 PAUL SHOUP, President, Southern Pacific Company, San Francisco, Calif.

COMMITTEE III

Reserves and Note Issues

- | | |
|---|--|
| JOHN G. LONSDALE, <i>Chairman</i> , President, Mercantile-Commerce Bank and Trust Company, St. Louis, Mo. | 6 JAMES E. CALDWELL, President, Fourth and First National Bank, Nashville, Tenn. |
| 1 WALTER S. BUCKLIN, President, National Shawmut Bank, Boston, Mass. | 8 MOORHEAD WRIGHT, President, Union Trust Company, Little Rock, Ark. |
| 2 A. J. BROSEAU, President, Mack Trucks, Inc., New York, N. Y. | 9 THEODORE WOLD, Vice-President, Northwestern National Bank, Minneapolis, Minn. |
| 3 WILLIAM A. LAW, President, Penn Mutual Life Insurance Company, Philadelphia, Pa. | 10 THORNTON COOKE, President, Columbia National Bank, Kansas City, Mo. |
| 4 A. L. HUMPHREY, President, Westinghouse Air Brake Company, Pittsburgh, Pa. | 11 J. H. FROST, President, Frost National Bank, San Antonio, Texas. |
| 5 HENRY B. WILCOX, Vice-Chairman of the Board, Merchants National Bank, Baltimore, Md. | 12 M. A. ARNOLD, President, First National Bank, Seattle, Wash. |

COMMITTEE IV

Rediscounts and Open Market Operations

- | | |
|---|---|
| CHELLIS A. AUSTIN, <i>Chairman</i> , President, Equitable-Seaboard Bank and Trust Company, New York, N. Y. (Deceased) | 1 PHILIP STOCKTON, President, Old Colony Trust Company, Boston, Mass. |
|---|---|

Federal Reserve District No.		Federal Reserve District No.	
2	FREDERICK H. ECKER, President, Metropolitan Life Insurance Com- pany, New York, N. Y.	7	THEODORE F. MERSELES, President, Johns-Manville Corporation, New York, N. Y. (Deceased)
3	CHARLES S. CALWELL, President, Corn Exchange National Bank and Trust Company, Philadelphia, Pa.	8	W. F. GEPHART, Vice-President, First National Bank in St. Louis, St. Louis, Mo.
4	WILLIAM L. CLAUSE, Chairman of the Board, Pittsburgh Plate Glass Company, Pittsburgh, Pa.	9	C. T. JAFFRAY, President, Minneap- olis, St. Paul and Sault Ste. Marie Railway Company, Minneapolis, Minn.
5	JOHN M. MILLER, JR., President, First and Merchants National Bank, Richmond, Va.	10	HUNTER L. GARY, Theodore Gary and Company, Kansas City, Mo.
6	RUDOLPH S. HECHT, President, Hi- bernia Bank and Trust Company, New Orleans, La.	11	NATHAN ADAMS, President, Ameri- can Exchange National Bank, Dallas, Texas.
		12	EVERETT G. GRIGGS, President, St. Paul and Tacoma Lumber Com- pany, Tacoma, Wash.

AGENDA

COMMITTEE II

Charter and Structure

- I. Rechartering.
 1. Duration of charter.
 2. Method of securing renewal of charter.
 - a. Press for renewal of charter as separate congressional measure,
or
 - b. Include renewal provision in congressional bill of more general
nature relative to Federal Reserve.
 3. Time of renewal.
 - a. Press for renewal at earliest possible opportunity,
or
 - b. Pursue an opportunist policy and urge renewal when political and
other conditions seem most propitious.

II. Districts.

1. Number of districts.
2. Boundaries of existing districts.
3. Federal Reserve cities.
4. Federal Reserve branches.
 - a. Number of.
 - b. Location of.

III. Directors.

1. Qualifications of members of the three classes.
2. Method of selection.
3. Changes in the number of members of each class.

IV. Board.

1. Number of members.
2. Tenure of office.
3. Salaries.
4. Ex-officio membership thereon.
5. Qualifications of appointive members.
6. Method of selecting those who are not ex-officio members.
7. Should one or more members of the Advisory Council be members of the Federal Reserve Board?
8. Powers of.
(To be considered under the various specific heads such as discount policies, open market operations, etc.)

V. Advisory Council.

1. Method of selection.
2. Tenure of office (now one year).
3. Should it be given more power (now has only advisory power on certain questions)?
4. Possibility of establishing closer relationship with Board.

VI. Membership.

1. National banks.
2. State banks.
 - a. Is it desirable to encourage wide membership with the view of securing a better integration of the entire national credit system,
or
 - b. Is it desirable to limit membership to the larger state banks, aiming at financial strength, rather than number of banks?
 - c. Qualifications for admission of state banks.
 - d. Is it desirable to provide for associate memberships with limited requirements for admission and limited privileges so as to increase federal reserve resources and unify the credit system of the country?

VII. Foreign Agencies and Correspondents.

1. Should the foreign activities of the Federal Reserve System be increased?
If so, by
 - a. Establishment of agencies,
 - or
 - b. By increased use of correspondents?

VIII. Bank Examination.

1. Desirability of placing bank examination under supervision of Federal Reserve Board.
2. Desirability of superseding or supplementing state examination of state member banks by—
 - a. National bank examiners supervised as at present by the Comptroller of the Currency,
 - or
 - b. Examiners under the supervision of the Federal Reserve Board.

IX. Operating Functions.

1. Correspondent Relationships with Foreign Central Banks (carrying of deposits, earmarking, purchase and sale of gold, making of loans upon gold security).
2. Fiscal Agency and Depositary Functions for Federal Government.
 - a. Sale and delivery of government securities.
 - b. Redemption of government securities.
 - c. Exchanges of government securities.
 - d. Transfers of government securities.
 - e. Security purchases for government account.
 - f. Maintenance of government deposit accounts with designated depositaries.
 - g. Custody of government securities.
 - h. Depositaries for Treasury—Payment of government checks, warrants and coupons.
 - i. Collections of checks and non-cash items.
 - j. Relations with depositary banks—telegraph transfer of funds; former Sub-treasury functions; replacing, exchange and redemption of currency and coin.
3. Research and publications
 - a. Board.
 - b. Banks.

A G E N D A
C O M M I T T E E I I I
Reserves and Note Issues

I. Reserves.

1. Federal Reserve Banks.

Topics for consideration—

- a. Reserves against federal reserve notes (now not less than 40% in gold).
- b. Reserves against deposits (now 35% in gold or lawful currency).

2. Member Banks.

Topics for consideration—

- a. Reserves against demand deposits—
 1. Central reserve city banks (now 13%)
 2. Reserve city banks (now 10%)
 3. Country banks (now 7%).
- b. Against time deposits—
 1. All banks (now 3%).
 2. Effect which this low reserve ratio has on savings institutions.
 3. Incentive to convert demand deposits into time deposits.
- c. Should some of the reserves be carried in the vaults of the member banks? If so, what portion? (Original Act provided that 1/3 should be retained by member bank.)
- d. Should interest be paid on reserves?
- e. Method of computing reserves. (e. g. should reserves be held against trust funds, government deposits and other special types of deposits?)
- f. Redesignation of central reserve city, reserve city and country banks.
- g. Should state banks be permitted to consider federal reserve notes as reserves?

II. Currency.

1. Federal Reserve Notes.

Topics for consideration—

- a. Should federal reserve notes be issuable only against commercial paper as collateral?
- b. Should federal reserve notes be issuable against gold and collateral of commercial paper, government securities, private corporation securities or other recognized collateral or some combination of these?
- c. Should there be a certain fixed amount of federal reserve notes constantly outstanding but to be supplemented as occasion demands by notes based on gold or commercial paper?

- d. Should the class of collateral now used as basis for federal note issues be widened or narrowed?
- e. Changes in regulations affecting note issues in excess of the 40% rates.
- 2. Federal Reserve Bank Notes.
 - a. Continued as at present.
 - b. Abolished.
 - c. Modifications as to collateral.
- 3. National Bank Notes.
 - a. Continued as at present.
 - b. Abolished.
 - c. Modifications as to collateral.
- 4. Relation of federal reserve currency to other currency such as national bank notes, silver certificates, "greenbacks," etc.

Consideration of such topics as—

 - a. Volume of currency.
 - b. Elasticity of currency.
 - c. Velocity.

III. Operating Functions.

- 1. Handling of Member Bank Reserves.
- 2. Supplying of Currency and Coin.
- 3. Collection and Clearance of Checks.
- 4. Collection of non-cash items (drafts, notes, and coupons).
- 5. Wire Transfers of Funds.
- 6. Safekeeping of Securities for Member Banks.

A G E N D A

COMMITTEE IV.

Rediscounts and Open Market Operations

I. REDISCOUNTS.

Introductory

Function of rediscounts in central regional banking.

- 1. European background (brief historical treatment).
- 2. Federal Reserve policy (brief historical treatment of recent few years).
 - a. January, 1922, to spring recession of 1923.
 - b. Spring of 1923 to close of 1924.
 - c. Beginning of 1925 to present time.

A. Legal Status.

- 1. Classes of institutions permitted by Act to rediscount with reserve banks.
- 2. Qualifications of eligible paper.
 - a. As regards form of paper (promissory notes, drafts, bills of exchange, acceptances, etc).
 - b. As regards purposes for which paper was originally drawn.
 - c. As regards maturity.

3. Amounts discountable.
 - a. For any member bank.
 - b. By the reserve banks.
 - c. Of paper bearing the signature of one party.
4. Rates.
 - a. Method of fixation.
 - b. Differentials between various types of paper.

B. Need of Control.

1. From standpoint of banking requirements, such as
 - a. Reserve ratios.
 - b. Money market conditions.
 - c. Gold movements.
 - d. Foreign conditions, exchange rates, and rates of foreign central banks.
 - e. Earnings of reserve banks.
2. From standpoint of other economic requirements, such as
 - a. Commodity prices.
 - b. Volume of production.
 - c. Inventories.
 - d. Volume of speculation.

C. Methods of control.

1. Discrimination based upon nature of paper and use of proceeds.
2. Rate changes.
3. Rulings and regulations.
4. Fixing basic lines for each rediscounting institution.
5. Moral suasion.
6. Advice and warnings.
7. Exercise of right to arbitrarily refuse applications.
8. Altering volume of open market purchases and sales.
9. Altering volume of direct collateral advances to member banks.

D. Agencies of control.

1. Reserve banks.
2. Board.
3. Advisory Council.

E. Difficulties of control.

1. Lack of pertinent analogies in experience of foreign central banks.
2. Varying interest rates existing throughout the country.
3. Correspondent connections of small country banks to larger institutions in the financial centers.
4. Statistical.

II. OPEN MARKET OPERATIONS.

Introductory

Function of Open Market Operations in central and regional banking.

1. European background.
2. Federal Reserve policy (brief treatment of development).

A. Value of (in relation to)—

1. Individual banks.
2. Credit control under Federal Reserve.
3. Development of bill market.
4. Gold flow.
5. Dollar credits.
6. Foreign credit and currency situations.
7. Earnings of System

B. Legal status.

1. Classes of permissible purchases.
2. Institutions dealt with.
3. Rates.
4. Differentiation from rediscount operations.

C. Control.

1. Need of
 - a. From standpoint of banking requirements.
 - b. From standpoint of other economic requirements.
2. Methods of
 - a. Rate changes.
 - b. Rulings and regulations.
 - c. Treatment of applications.
3. Agencies of
 - a. Federal Reserve Board.
 - b. District banks.
4. Difficulties attending federal reserve participation in open market.
 - a. Eligibility limitations.
 - b. Foreign demands.
 - c. Absorption of funds by securities market.
 - d. Attitude of individual banks.

D) Special problems.

1. Do open market activities enable reserve banks to keep outstanding more credit than would otherwise be possible?
2. Can open market sales be employed as a substitute for discount rate increases in such a way as to avoid the unpopularity of such increases?

3. Do open market purchases force more rapid credit expansion by member banks than do reduction of rediscount rates?
4. Have the effects of dealings in government securities been similar to dealings in bank acceptances?
5. Should the reserve banks continue to deal with other than member banks in making purchases and sales?
6. Should open market powers include different types of paper than is now permitted?
7. In general, should open market activities be continued or abandoned?

III. FINANCES.

1. Gross earnings.
 - a. Sources and amounts (classified).
2. Expenditures.
 - a. Purposes and amounts (classified).
3. Net earnings.
 - a. Analysis.
 - b. Surplus account.
 - c. Dividends.
 - d. Franchise payments.
4. Building and equipment accounts.

IV. GOLD POLICY.

Consideration of such topics as—

- a. Should a portion of the gold now in this country be "earmarked" and not considered a part of the reserve fund?
- b. International movement of gold.
- c. Cooperation with foreign banks of issue.