The Federal Reserve System

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THE FEDERAL RESERVE SYSTEM

BY

HENRY PARKER WILLIS, A.B., Ph.D.
Formerly Secretary, Federal Reserve Board; Director of Research, Federal Reserve Board; Professor of Banking, Columbia University.

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HENRY PARKER WILLIS

After receiving his degrees of Bachelor of Arts in 1894, and Doctor of Philosophy, in 1897, at the University of Chicago, Mr. Willis spent several semesters at the Universities of Leipzig and Vienna.

Upon his return to America he served as Professor of Economics and Political Science at Washington and Lee University until 1905, when he was appointed Professor of Finance at George Washington University, and in 1912 he was selected to act as Dean of the College of Political Science in the same institution. During the years 1913 and 1914 he lectured at Columbia University on economic subjects. Mr. Willis had acted as expert to the committee which presented the Federal Reserve Act, and was later chairman of the Technical Organization Committee which planned the organization of the new banks.. Upon the creation of the Federal Reserve Board in 1914, Mr. Willis was selected to act as Secretary. In February, 1916, he was also appointed President of the newly authorized Philippine National Bank, organizing both the parent office of the bank and its New York agency.

Mr. Willis has also acted as expert for the Monetary Commission of 1897, the United States Immigration Commission, and the Joint Committee on Rural Credits. During his long residence in Washington he has served as Washington correspondent for numerous newspapers and commercial journals, including the New York Journal of Commerce and the Springfield Republican. He has visited Japan, China and the Philippines as a special correspondent for several newspapers and is now editor of the Journal of Commerce of New York.

Among Mr. Willis' published works are: "The History of the Latin Monetary Union," "Reciprocity," "Our Philippine Problem," "Principles and Problems of Modern Banking," "American Banking," "Principles of Accounting," "Life of Stephen A. Douglas."

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The Federal Reserve Act, passed by Congress on December 23, 1913, is the outcome of a discussion of banking conditions extending more or less sporadically over the years since the Civil War, but assuming an increasing degree of urgency from and after the panic of 1893.

The National Banking System had been established during the Civil War, partly as the result of the Government's financial necessities of that period. It was, before the adoption of the new act, a system of independent and unrelated banks with capitals varying from $25,000 to $25,000,000, holding out, practically irrespective of any definite principles, to any group of five individuals the right to organize and incorporate under its terms. Its characteristic feature, apart from this competitive and independent aspect, lay in its provision for the issuance of currency protected by the bonds of the National Government which were required to be purchased by each bank, as organized, to an amount not exceeding its capital stock, and not less than certain specified sums. Such bonds were then to be deposited with the Treasury Department to safeguard the note circulation of the depositing bank.

Defects in the system very early began to make themselves manifest. The currency proved to be wholly inelastic, while the lack of relationship between the banks reduced public confidence in the solvency of the various institutions in times of panic or stress. Owing to such absence of confidence, individual banks were frequently assailed by withdrawals of cash leading to the familiar "runs" upon them, and these often aggravated financial crises. Although, therefore, sufficiently effective in times of financial ease and quiet, the National Banking System had entirely failed to furnish protection to the country at periods of stringency, over-expansion, or weakened reserves, while its currency was inadequate and unsatisfactory.

THE ALDRICH-VREELAND ACT

Many bills for the reformation of the banking system were proposed during the years from 1893 to 1913, but practically the only step taken by Congress (apart from some purely incidental provisions in the Gold Standard Act of 1900) was the Aldrich-Vreeland Act of 1908, wherein it was provided that special emergency notes might be issued upon security of bonds other than national, under certain conditions, as well as upon commercial paper deposited with so-called "national currency associations" composed of the associated national banks of a given city or locality. The intent of the Aldrich-Vreeland Act was to furnish an expansive element in the note circulation, designed to meet emergency calls for new or additional currency, but it was never called into practical operation until just before the time at which the measure was to expire, shortly after the opening of the European war, which began in August, 1914.

GENERAL SCOPE OF THE FEDERAL RESERVE ACT

The Federal Reserve Act was intended not only to meet this demand for an elastic currency, but to eliminate the chief sources of weakness in the old system, and at the same time to reorganize the whole banking resources of the country. Its fundamental thought was the organization of the existing banks of the country into homogeneous groups, each of which groups was to establish a cooperative or "central" institution, whose duty it should be to issue notes, hold reserves, and rediscount for the individual or member banks of such group.

Creation of Banking Districts.—The Act accordingly provided for a division of the country into not over twelve separate districts, in each of which the member banks should subscribe 6 per cent of their capital and surplus to the capital stock of an institution to be known as the Federal reserve bank of the district. One-half of this 6 per cent, or 3 per cent, was to be actually paid in, and no Federal reserve bank was to be opened unless it had a subscribed capital of not less than $4,000,000, implying, therefore, a paid-up capital of at least $2,000,000.

Deposit of Reserves.—The Act required that a specified percentage of the reserves required of member banks should be deposited with the Federal reserve banks and should be kept there. This deposit of reserves could be effected by actually placing cash with the reserve bank, or by presenting to it for rediscount, paper of specified kinds. The supervision of all the banks was vested in an organization to be appointed by the President of the United States, and known as the Federal Reserve Board, whose headquarters were afterward located at Washington, D. C.

Subsequently, as a war measure, it was required that all reserves be placed with Federal Reserve banks, while the required reserve percentage was set at 13 per cent of demand deposits for banks in central reserve cities, 10 per cent for banks in reserve cities, 7 per cent for banks elsewhere.

Foreign Trade Acceptances.—The Act further granted permission to national banks to embark upon a new kind of business not previously open to them, that, namely, of accepting or guaranteeing the paper of importers and exporters engaged in the foreign trade of the United States. As a further assistance to foreign trade, national banks of sufficient capitalization were authorized to obtain permission from the Federal Reserve Board to open branches in foreign countries. Later, an amendment to the Act passed in 1917 authorized national banks to take stock in institutions to be created for the purpose of engaging in foreign trade banking.

Refunding of Bonds.—The bond-secured currency had been inelastic and unsatisfactory; and it was feared that, as new currency was issued by the Federal reserve banks it might tend to displace the national bank currency and so inflict losses upon the member banks which had paid high prices for the 2 per cent bonds in the belief that they would continue to be accepted as protection for national bank notes, and would thus enjoy an artificial market or demand. Therefore, the Act made provision for the gradual refunding of these 2 per cent bonds into 3's, at rates of conversion to be determined by the Secretary of the Treasury, while it also authorized the Federal Reserve Board to require Federal reserve banks to purchase $25,000,000 each year of such 2 per cent bonds.

A variety of other changes of relatively minor importance were made in the existing banking laws of the United States, but in substance the National Banking Act was left untouched, the Federal reserve system being simply introduced as a means of coordinating and combining the already existing institutions. This, in outline, was the form in which the Act was passed on December 23, 1913, as already stated, although for the sake of completeness reference has been incidentally made to some later amendments.

Domestic Trade Acceptances.—Subsequently some amendatory legislation was enacted, the first being the law adopted September 7, 1916. In this act of September 7, provision was made for the use of the domestic acceptance through clauses permitting banks to accept drafts not only in foreign trade, but also in domestic business, provided that each draft was protected by actual documents. The Federal Reserve Board was also authorized to permit member banks to carry as much of their reserves as they saw fit, over and above the required amount, in the vaults of the Federal reserve banks. Some minor additional changes also were made in the Federal Reserve Act by the terms of the act of September 7, but these were not comparable in importance to the two just referred to. In 1917 the reserve change already mentioned on page 8 was introduced, while in 1919 provision was made for a new class of foreign banks with Federal charters, intended to help in the reorganization of business on a post-war basis.

ORGANIZATION OF FEDERAL RESERVE BANKS

The Federal Reserve Act being a constructive statute and not purely negative or prohibitory in character, it was necessary to provide for the organization of the various new institutions that had been authorized. Foreseeing this necessity, the framers of the Act had provided that a so-called "Organization Committee" should divide the country into districts, organizing a bank in each district. Shortly after January 1, 1914, the organization thus provided for began its task, assisted by a committee of experts to whom was entrusted the technical and scientific part of the work. The Act had required the creation of not less than eight nor more than twelve districts, and the committee determined to establish the full number. Members of the Federal Reserve Board were appointed and took office on August 10, 1914, immediately proceeding to complete the work of the Organization Committee by designating Government directors for each of the several reserve banks. These were to be three in number in every case, the total number of directors at each bank being nine, six of whom were to be selected by the stockholders of the reserve bank. The selection of Government directors having been completed, the sixteenth of November, 1914, was set as the date for the opening of the new institutions, and payments of capital stock and reserves were ordered to be on hand on or before that date.

INDIVIDUAL ORGANIZATION OF BANKS

Partly as the result of law, and partly as determined by the regulations and by-laws of the banks.

each Federal reserve bank assumed the following form of organization:

The Board of Directors.—Each bank was controlled by a board of directors consisting of nine members. Of these nine, three were chosen by the member banks of the district, voting in three groups made up according to capitalization, one member being selected as representative of the banks of each such group; three other members were selected by the banks just as before, except that they were to be business men and not bankers; and three members were chosen by the Federal Reserve Board at Washington on behalf of the Government. Of the last or Government-selected group of three, one was designated as "Federal reserve agent" and chairman of the board, while a second was designated as deputy Federal reserve agent and deputy chairman. The operation of the bank was placed in the hands of an officer entitled "Governor," chosen by the board of directors, and in most cases this officer was assisted by one or more deputy Governors. A regular bank organization, including cashier, tellers, clerks, bookkeepers, etc., etc., was developed along ordinary banking lines. Each board of directors appointed committees, an executive committee being in charge of business between regular meetings of the board of directors.

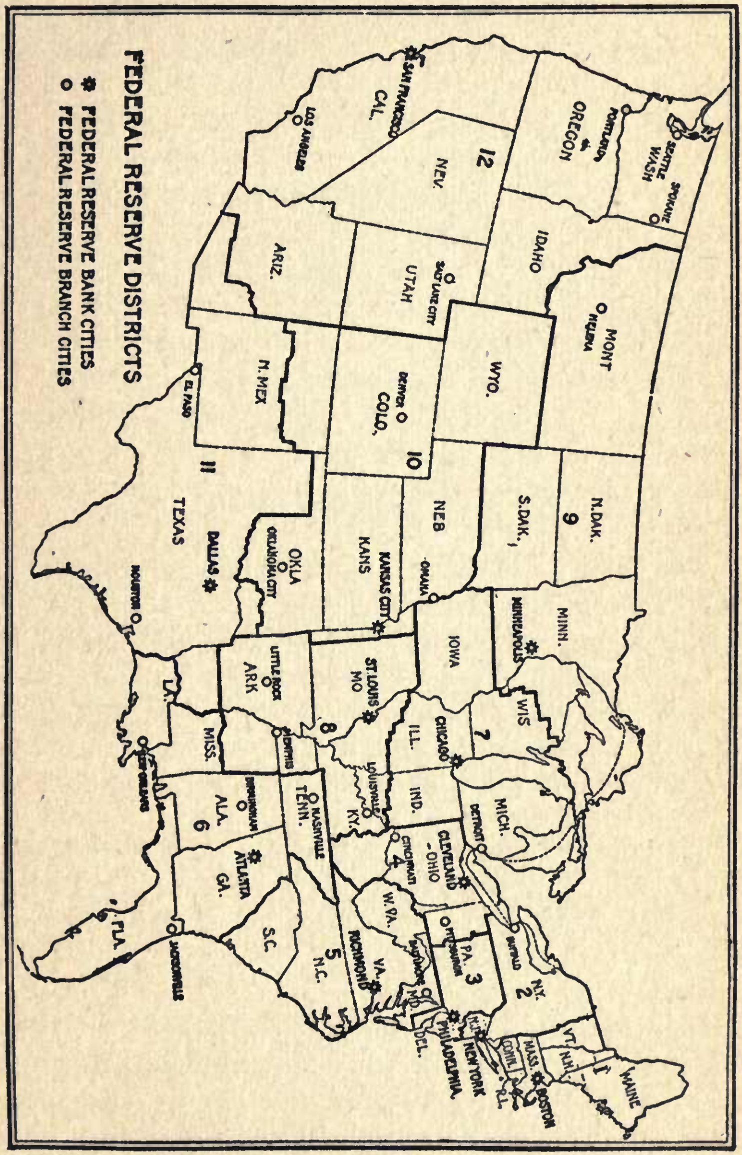
The Federal Reserve Agent.—The Federal reserve agent was in charge of communications with the Federal Reserve Board, and was custodian of Federal reserve notes obtained from Washington upon application to the Federal reserve bank. To him was assigned, in addition to his statutory function as chairman of the board of directors, many duties in shaping general policies and representing the bank in various ways.

The Governor.—The Governor of the bank was to have principal charge of relations with member banks, receiving from them their deposits of reserves and passing upon applications for discounts, purchases of paper and the like. He was the head of the banking organization.

General Control by the Federal Reserve Board.—Both the bank and the Federal reserve agent were to report daily to the Federal Reserve Board, giving any essential details that might be called for by conditions. The Federal Reserve Board fixed the salary of the reserve and the deputy reserve agents, and its approval was required in the case of all other salaries. The banks were to be operated on a uniform basis under regulations to be supplied by the Federal Reserve Board from time to time, while rates of discount—perhaps the most important function in connection with the banks' operation—were weekly recommended by the board of directors and subsequently submitted to the Federal Reserve Board for its approval, becoming effective when such approval had been granted, but not sooner.

EQUIPMENT OF INDIVIDUAL BANKS

Each Federal reserve bank equipped itself with a suitable office, vault, fixtures and the like, but at the outset it was not thought well to purchase buildings. Subsequently Federal reserve banks established branches equipped like a Federal reserve bank, but acting under direction of the parent institution. At present the total number of branches is twenty-one, located in nine districts, there being three districts without branches.



The branches at Helena, Mont., and Oklahoma City, Okla., have been authorized by the Federal Reserve Board but are not yet open for business.

The foregoing map presents a rough general outline of the districts as existing at the middle of the year 1920. Following is a condensed statement of the condition of the system:

Principal asset and liability items of the 12 Federal Reserve Banks combined on September 24, 1920.

[In millions of dollars.]

	Sept. 24
Reserves:	
Total	2,152
Gold	1,990
Bills discounted:	
Total	2,704
Secured by Government war obligations	1,220
All other	1,484
Bills bought in open market	308
Certificates of indebtedness	271

	Sept. 24
Total earning assets	3,310
Government deposits	46
Members' reserve deposits	1,801
Net deposits	1,658
Federal Reserve notes in circulation	3,280
Federal Reserve Bank notes in circulation	214
Reserve percentage	43.6

EARLY PROBLEMS OF THE SYSTEM

The new system had come into existence at a very critical time in American financial history. At the opening of the European war and while the task of selecting and confirming the members of the Board was still in progress, there had begun an important movement of gold out of the country for the purpose of liquidating debts owed to persons in the belligerent countries of Europe. This movement had caused anxiety among the banks, and specie payments had been practically suspended in many parts of the United States. Emergency notes, under the terms of the Aldrich-Vreeland Act, as promptly amended by Congress, had been issued to meet these difficulties, and the opening of the new banks found the nation at large in an uncertain and depressed condition with little demand for loans, and with a superabundant note currency amounting to some $400,000,000, not issued by the Federal reserve banks themselves but put out under the Aldrich-Vreeland Act as amended, still in circulation. The first task of the new reserve banks was to assist member banks in retiring such emergency currency, and in this they were of substantial service.

The country had hardly been restored to a normal currency basis, however, when heavy demands of foreign nations for our products produced a reverse movement in international trade, and gold began to flow into the United States instead of away from the country. In consequence the reserves of member banks were continuously high, and they were not in need of much extra accommodation, so that their demands upon Federal reserve banks for the services of the latter were naturally small. This obviated the need of any reliance for the time upon Federal Reserve banks and of course eliminated opportunities of earning which would otherwise have been open to the latter, but it gave the reserve banks and the Federal Reserve Board full opportunity to perfect their regulations and methods of doing business before the advent of any period of exceptional stress.

OPENING OF THE WAR

Such a period of stress, however, was not slow in developing. It had been evident for some time after the opening of the year 1917 that the United States would be likely to be drawn into the European war in some way and such in fact proved to be the case, war being declared on April 6. The declaration of war was necessarily the signal for the acceptance of very great responsibility by the banking system. It was evident from the outset that even with the heaviest taxation that could be borne by the community it would be necessary for the Treasury to obtain a very large part of the resources needed to pay the expense of the war through loans. As time went on it became equally apparent that such loans could not be provided for by any means already familiar to the community, but that they must be floated through the development of a new and very inclusive system of distribution. This led to the creation of the so-called Liberty Loan organization which ultimately extended its ramifications throughout the United States, but it was soon apparent that even these organizations would not be able to place the bonds unless they had direct assistance from the banks, which in turn would be obliged to fall back upon the Federal Reserve banks.

The handling of war loans as fiscal agents for the United States, the issuance of temporary and permanent bonds, the receipt of subscriptions, the shifting of the Government's funds from place to place, and most important of all, the rediscounting of paper representing advances made by banks upon the security of Government obligations, became the principal functions of the Federal Reserve banks. It was an unfortunate fact that the first great expansion of its operations which was experienced by the Federal Reserve system came as the result, not of ordinary or normal business requirements, but in consequence of those growing out of war demands. As the Government, however, gradually extended the scope of its control over business operations of every kind, and as business became more and more engaged in filling Government orders, the financing of the Government's war requirements became more and more largely a process of financing the business of the country, through new and unaccustomed methods of approach.

The years 1917-1919 were accordingly a period within which the nature of the nation's business was being gradually transformed, while a new basis for the financing of it was being supplied. In this process the Federal Reserve banks underwent a very great expansion both of their personnel and of their operations. The statement given on page 14 shows the condition of the system as it existed in September, 1920, indicates the scope of the expansion of the banks' operations, for the war, although ended in a military sense at the time of the armistice on November 11, 1918, was not in a financial sense near its close. Not only was one of the great war loans (the Victory Loan of 1919) floated more than four months after the conclusion of the armistice, but the Government's regular expenses went on mounting during the first six months of 1919, due to the fact that many commitments, such as soldiers' pay and the like, had to be met. The gradual decline of the war demands was not, as some had expected, followed by an equal reduction in the scope of the operations of Reserve banks.

Instead of the business depression which some had predicted as the immediate successor to the close of the war, a period of speculation and inflated business transactions ensued in the United States, and this inflation period was unfortunately financed in large measure through the use of funds which should have been employed in reducing the banking commitments. Such funds were to no small degree obtained from Federal Reserve banks by continuing the practice of rediscounting paper collateraled by Government obligations. Accordingly, the transactions of the system continued to increase in size, reaching their present great magnitude, as already illustrated by the statement shown on page 14.

To-day the holdings of Federal Reserve banks are to the extent of about one-half composed of so-called war paper, that is to say, paper collateraled by Government obligations, while they are to the extent of about one-half composed of commercial paper, including bankers' acceptances, commercial bills, and other obligations.

DISCOUNT RATE POLICY

The outstanding feature of reserve policy during the war was seen in connection with the establishment of discount rates. Prior to our entry into the struggle the discount rate question had not been of very much importance. Although it was true that Federal Reserve banks almost from the beginning established a rate for the rediscount of paper which was under the market rate, thereby allowing a small margin of profit to a banker who might choose to place paper with the reserve institution, this phase of policy also had been of comparatively little importance. When the reserve act was passed it provided for a lower basis of reserves than that which existed at the time, warranting itself in so doing by the fact that the greater economies of reserve permitted by the system would allow the relaxation of the more or less stringent legal requirements which had previously maintained the holdings of cash at what seemed an unnecessarily high point. The effect of this "release of reserves" was to place in the hands of the banks a very large lending power which they were able to employ in expanding their operations. As a matter of fact they did largely increase their dealings on the strength of this greater capacity for lending, and with this broader power of operation it was not necessary (as already pointed out) for them to do much rediscounting at any price, so that the

Reserve banks had practically no control over the discount market or the rate of interest. There had been some modification in this condition shortly before the entry of the United States into the war, due to the fact that the "slack" provided through the lowering of reserve requirements had been very largely "taken up." In the opinion of some, therefore, the first three or four months of the year 1917 were characterized by the development of a certain power over the money market which the reserve system had never before possessed. Be this as it may, the period, whatever it was, within which the system was able to exert such control was very short.

At the opening of the war the fundamental question in the financial world was necessarily the rate at which the new Government bonds were to be floated. It was necessary that this rate, whatever it might be, should practically dictate the discount rate to be fixed by the Reserve banks, for in the event that the banks declined to rediscount at a rate generally corresponding to the rate on the bonds, prospective buyers would be somewhat discouraged from buying and paying for them on the instalment plan, since there would be a distinct item of cost for "carrying" the securities. It was therefore considered by the authorities of the United States Treasury very essential to have the rediscount rate at Reserve banks correspond to the rate borne by the new loans.

In the first Liberty loan the rate of 3½ per cent paid on the bonds was accordingly paralleled by a 3½ per cent rate on notes based upon such bonds, and as the subsequent issues of Government securities came upon the market at gradually rising rates of interest, a corresponding advance in the rate of discount at

Reserve banks was made. During the latter part of the war, however, the advance in rates at Federal Reserve banks was somewhat "slowed down" and the rate was kept constantly a little below that borne by the bonds. This afforded a certain element of profit to those banks which were holders of bonds, Government notes or Treasury certificates of indebtedness.

CHARACTER OF PAPER ELIGIBLE FOR PRESENTATION

The Federal Reserve Act has given to the Board the power, subject to broad general restrictions, to define the character of paper eligible for presentation to Federal reserve banks as a basis for discount. That body ultimately defined certain types of such paper, including among them the bankers' acceptance or draft accepted by a banker, the trade acceptance or bill or draft accepted by an individual or a concern, the single-name or "straight" note, the foreign bill, and so-called "commodity paper" or paper collateraled by warehouse receipts representing staple products.

Each of these classes of paper had to conform to two basic requirements: (1) It must grow out of actual bona fide commercial transactions; (2) it must not exceed specified maturities—90 days for commercial paper, 180 days for agricultural paper, and similar periods for bankers' acceptances growing out of foreign trade. The fact quickly developed that the commercial paper of the country was in such a condition as to call for considerable readjustment in order to bring it strictly within the prescribed form laid down by the Board. This necessitated further readjustment of the Board's regulations, and rectification of various practices in connection with the creation of commercial paper itself. Rediscount operations, however, continued to be upon a small scale for two years or more.

Under the "open market" provisions of the law it had been provided that Federal reserve banks might buy from individuals, corporations, or banks whether or not members of the system, any paper that they might choose, provided that it complied with the requirements for discountable paper. The banks bought considerable quantities of Government bonds, municipal warrants and bankers' acceptances, and smaller amounts of trade acceptances. In this way their earning assets were increased until at the end of the year 1916 they had about $200,000,000 invested. At the close of 1916 a summary of the entire operation of the system since its opening—about two years—showed that a net earning above organization expenses had been made of approximately 2.7 per cent on the capital. During the period in question gross earnings had been approximately $6,475,000, and net earnings approximately $2,680,000. The bank which had paid the largest dividend was the Federal Reserve Bank of Richmond, which had practically completed its whole 6 per cent dividend, actually declaring and paying it to November 1, 1916.

WAR EXPANSION

This first period of modest earnings and limited operation, during which the Federal Reserve system was chiefly occupied with problems of organization and in which its purchases of paper were comparatively small—hardly more than experimental—

would naturally have come to a close when the surplus lending power of the member banks which had been set free through the lowering of reserve requirements in the Federal Reserve Act had been absorbed and when, therefore, the natural expansion of business led the members to fall back upon Federal Reserve institutions for assistance. Exactly how long this process would have required it would be difficult to say, but it would certainly have been a slow and gradual expansion. The determination of the United States to enter the war brought the early period to a close and forced the Federal Reserve system to enter upon an epoch of very great and rapid growth instead of awaiting the slower development which would have been experienced under ordinary conditions.

It had been apparent from the close of the year 1916 that the United States was likely to be drawn into the European war by some means, a fact which actually came to pass in April, 1917. Even before the actual declaration of war, the demands of member banks had begun to increase quite distinctly, so that it was the opinion of authorities in the Federal Reserve system that the control over discount rates which it had been supposed would be exerted by Federal Reserve banks had become real. This could not be the case as long as the operations of the members were very small so that the rediscount rate at Reserve banks was only sporadically availed of. As the demands of the member banks began to increase consequent upon the enlargement of their own operations, and perhaps in some measure due to a desire to strengthen themselves and their customers with a view to possible war developments, the authority of the Federal Reserve rate came to be more and more generally recognized.

Another factor which tended to increase the influence of the Reserve banks was furnished by the decision of the Treasury Department to take advantage of the provision of the Act which authorized the Reserve banks to act as fiscal agents for the Government. This was put into effect on the first of January, 1917, and immediately resulted in transferring all Government funds to the Reserve banks in those cities in which the Reserve banks were situated. Treasury deposits, however, were retained in the smaller banks outside of the Reserve bank cities.

The first effect of the advent of the United States as a participator in the European war was to make it evident that there would have to be an immense flotation of bonds and short-time Government obligations for the purpose of providing the Treasury with the means of meeting the demands upon it. This, of course, had been foreseen, but it had not been understood that the heavy demands thus to be expected would be brought to bear almost at once because of the fact that the European countries had reached a point which necessitated immediate financial aid. At the very outset of our participation in the war, therefore, Federal Reserve banks were called upon to supply the Treasury with the funds it required and to get them back by redistributing Treasury obligations to member banks. In so doing, as the Government's policy gradually worked out, it really undertook to anticipate collections to be obtained from the rank and file of the population, partly through taxes and partly through the sale of long-term bonds, afterward known as Liberty bonds. The process of formulating and enacting a tax measure is, however, always slow, and the machinery required for the placing of a great loan of the kind afterward familiar under the head of Liberty loans, is by no means speedy. It was therefore evident that the Federal Reserve banks and their members would have to sustain a very large burden of floating indebtedness for a good while to come.

Those who were in charge of the financing recognized from the outset the desirability of having the rank and file of the population absorb these obligations as fast as practicable, but it was also recognized that rapid absorption of that kind was hardly to be expected. Even to get the banks of the country to take the Government's obligations as an intermediate step to their distribution to the public meant that the banks must be assured of some means of recouping themselves, in the event that they either became overburdened with the securities through direct purchase or through the discounting of paper presented by their customers with these obligations as collateral, or in the event that hard-pressed customers who had been subscribing heavily for public bonds required consequently greater accommodation in order to carry on their business. In consequence of this situation, the Treasury practically required the Federal Reserve banks to fix a rate for discount for paper collateraled by Government obligations which was not higher than the rate on the Government obligations themselves. This might have done no harm had the rate on Government obligations been allowed to go to a figure which corresponded to the commercial worth of money, but through a desire to keep the rate of interest as low as possible the first Liberty loan was sold at 3½ per cent and the Reserve banks undertook to rediscount at this same figure for banks which had loaned to their customers at that rate.

A somewhat similar policy was followed throughout the succeeding Liberty loans, and as time went on it became necessary for the Treasury to anticipate the proceeds of Liberty loans by selling what were known as Treasury certificates of indebtedness. These were for a long time put out in blocks at intervals of about two weeks, so that during the intervals between Liberty loans the banks of the country would be called upon to absorb great quantities of Treasury certificates. Thus, when a Liberty loan was floated the proceeds of the loan would be used to take up the certificates. When the proceeds of new heavy taxes were received they were used as far as they would go to pay off maturing issues of certificates of indebtedness as well as current expenses of the Government. In this way the banking mechanism was drawn upon for the current funds necessary to finance the war and they were provided in advance of the time when they were saved, or even subscribed through promises to purchase Government obligations.

It was this process which laid the basis for what came to be known as inflation—the creation of long-term obligations in banks which gave rise to issues of currency and in any event furnished the basis of demand for commodities which raised the price of goods to abnormal figures. The operation which has thus been briefly sketched necessitated an enormous expansion both in the business and personnel of Federal Reserve banks, and consequently led to a very great increase in earnings. Prior to our entry into the war the total personnel of Federal Reserve banks did not include more than about 850 individuals. At the close of the year 1919 the staff had increased to more than 10,000 persons, and the total earning assets which at the close of 1916 were only about one billion dollars, had risen at the close of 1920 to $6,500,000,000. Reference has already been made to the very modest earnings which Federal Reserve banks reported during the first two years of the system. The opening of the war period with its enormous expansion of operations immediately brought a great growth both of gross and net profits, and for the year 1917 the total net earnings, after all expenses, for the combined banks of the Federal Reserve system rose to about 20 per cent, while for 1918 they reached about 55 per cent, and for 1919 about 100 per cent, the actual net earnings in the latter year amounting to approximately $80,000,000. The most recent reports of earnings covering the first half of the year 1920 show a rate of return on capital which may be roughly estimated at about 150 per cent.

CHANGE IN CHARACTER OF PAPER

Brief description has already been furnished as regards the character of paper which was eligible for presentation at Federal Reserve banks under the terms of the original act. Had not the war come on as it did, there would have been good reason to expect a slow, gradual development in American commercial paper usage, and probably a slow alteration of the kinds of paper composing the portfolios of member banks of the system. It had been found through experience during the first two years after organization that the use of the acceptance would probably proceed rather slowly and that its best form would doubtless be the bankers' acceptance which in turn would find its most desirable use in foreign trade. Our foreign trade had increased very greatly during the first years of the European war, but the financing of it had been upon a conservative basis and with comparatively little change in the types of paper employed by our banks.

During the years 1915 and 1916 only a relatively small advance in the use of acceptances was made, while the bulk of the paper which was discounted at Federal Reserve banks consisted of the familiar straight single-name note which has for many years past constituted the basic means of financing American transactions.

Shortly after the opening of the war the increasing tightness of money and the desire to provide on a liberal scale for our constantly increasing export trade brought about a more liberal use of the acceptance, and bankers' acceptances, both foreign and domestic, began to appear in the market in considerably greater number. It was then believed that the effect of the war would not only be that of increasing the amount of straight single-name paper discounted by the banks and by them rediscounted with the Federal Reserve banks, but that it would also bring about a very large addition in the form of acceptances to the available volume of paper.

The war financing, however, introduced an unexpected change into the situation. This was due to the fact that it was impossible to discriminate between the purposes for which paper was presented. In practice, there was no feasible way of determining whether a business house which asked for an advance and offered Government bonds as collateral was doing so in order to subscribe for more Government bonds or, on the other hand, was merely seeking to get funds with which to enlarge its plant, or even to engage in speculative operations. The fact that a special low rate had been made for the paper collateraled by Government obligations, and the further fact that every effort had been made to secure a very wide distribution of Government obligations so that they were held by the population throughout the country, unavoidably involved the transference of our bank-loan basis from bona fide commercial paper to paper collateraled or protected by Government obligations of various descriptions. Soon after the opening of the war, therefore, it seemed as if the portfolios of Reserve banks might come to consist almost entirely of this so-called war paper. The development of commercial banking practice and of the use of commercial paper in general was given a serious setback.

Owing to the restrictions upon business, and especially upon speculation, which were enforced through legislation enacted by Congress and which continued up to the close of the war, the influence of inflation and the change in the character of paper held by Reserve banks did not make themselves as fully evident as they would otherwise have done. With the close of the war, however, and the resumption of active stock-exchange operations not long after, there set in a period of extreme speculative activity which was the more dangerous because of the fact that rediscount rates at Federal Reserve banks were for some time kept at a low level owing to the circumstance that expenses actually increased for a number of months after the war because of the commitments which had been previously entered into. These heavy Government expenses necessitated continual sales of Government obligations which in turn were thought to require the same methods of financing that had been employed in floating them during the war period. At the same time immense demands for capital, partly for financing our export trade, and partly for the expansion of industries which had been held back during the war, tended to raise ordinary commercial rates of interest both for bank paper and for investment securities while at the same time they led to a search for new methods of financing. There was therefore during the year 1919-20 a rapid growth in the acceptance liabilities of member banks and an increasing tendency to diversify the character of the paper held by Federal Reserve banks.

CONTROL OF CREDIT

As has been seen, any effort of the Federal Reserve Board or system during the war to control the credit situation had been put out of the question by the fact that it had been obliged to make a low and preferential rate upon notes secured by Government obligations. It was clear, however, that as soon as public financing was fairly well out of the way it would be necessary to abandon this low rate policy. In all the central banks of the world experience has shown that the most available means of controlling the volume of credit is that of varying the discount rate. This is not only because of the influence of such variations in regulating the demand for loans, but also because of the leadership which is afforded by such changes in discount rates—a warning thus afforded to owners of capital as to conditions existing in the market. As a substitute for this kind of leadership an effort had been made both by the Governmental authorities and by the officers of the Federal Reserve Board and system, in cooperation with them, to induce voluntary rediscount of demands of banks by stimulating saving, cutting down unnecessary production, and in various other ways. Appeals of this kind had been strengthened and supported by the action of Congress in passing an act creating what was called the "capital issues committee," whose function it was to pass upon all prospective issues of securities, allowing those only to receive sanction which were regarded as representative of essential or necessary goods. This plan could not continue long after the close of the war and the work of the capital issues committee was terminated early in 1919 by order of the Secretary of the Treasury.

It was evident, as the war restrictions one after another slipped away, that the Federal Reserve Board would have to fall back upon the discount rate as a means of credit control. An advance in rates was in fact initiated on the 4th of November, 1919. Up to that time the war rates corresponding to those borne by the Government obligations had practically fixed the charges at Federal Reserve banks. These rates corresponded to a charge of about 4¾ per cent for 90-day paper. The November advance was followed by other changes and within the succeeding six months the 90-day rate had been shifted practically to a 7 per cent basis throughout the country, while for 90-day paper collateraled by Government obligations the rate was 6 per cent. Meantime the Secretary of the Treasury had raised the rate on Treasury certificates of indebtedness to 5¾ per cent and 6 per cent, according to maturity.

The effect of these changes was to tend to reduce the price of the outstanding Liberty bonds in the market because they had been originally issued at rates which were considerably below the real market value of money, while this market value had itself risen as a result of the destruction of capital during the war. The sharp advance in rates at Federal Reserve banks corresponded to an even greater advance which had taken place in the market in the meantime and which carried the charge for good commercial paper up to a level of 8 per cent or more before the first of July, 1920, while the best and soundest obligations of strong corporations could be marketed only at a rate varying from 7 to 8 per cent. The application of these high rates naturally had its effect in restricting credit and in preventing the previously unrestrained growth of demands for accommodation.

During the war there had been an enormous advance in the liabilities of banks all over the country. The total deposits of all banks as reported by the Comptroller of the Currency rose from \$12,400,000,000 at the end of 1916 to nearly \$23,000,000,000 at the end of 1919. It could not be expected that the mere application of higher discount rates by Federal Reserve banks would immediately restrain this growth of credit, and as a matter of fact there was no reduction in the total amount of credit granted during the first half of 1920. The high rates did, however, restrain applications for credit which would otherwise have made themselves felt. On practically all the stock exchanges of the country operations, after the beginning of the year, were reduced to a much lower figure than had been characteristic for a long time past, while there was great reduction in the speculation in lands and in commodities that had been rife all over the country during the year 1919. By about the middle of 1920 it was admitted by bankers that the situation was better in hand than it had been and that the post-war speculative era had been at least brought toward a close. It was an unfortunate element in this process of credit control that some lines of business in which there had been overtrading and inflation were obliged to suffer more or less severely through the price readjustment which grew out of the high rates for money, not only at Federal Reserve banks but in the investment market. This general tendency toward disorganization and price revision was more or less aggravated by the fact that lack of equipment and difficult traffic conditions on the railroads, combined with labor troubles, had brought about a serious congestion of goods. The work of the Federal Reserve system was steadily directed toward assisting in the carrying and maintenance of commercial credit accommodation at the same time that it, under the leadership of the Federal Reserve Board, was discouraging the growth of speculative loans.

CLEARING AND COLLECTION

One of the provisions of the Federal Reserve Act that had aroused most discussion required the Federal Reserve banks to act as clearing houses, and to receive from their member banks checks on one another and on outside banks for collections. There was considerable opposition to this provision, not only during the time the Act was under discussion, but subsequently. Nevertheless, it was a necessary element in the proper administration of the law, due to the fact that under the old regime the balances carried by member banks with their correspondents in the cities had been used as a basis for collecting checks, while now that these balances were to be transferred to reserve banks, it was natural and necessary to transfer to the latter the duty of making the collections, using the reserve balances to protect outstanding checks which were in process of such collection.

The technical Organization Committee had recommended a complete plan for a clearing system at each Federal reserve bank, as well as for a clearing plan between Federal reserve banks. The latter was the first taken up.

NATIONAL GOLD SETTLEMENT

The fundamental conception was that of a deposit of gold to be made by each Federal reserve bank with the Federal Reserve Board, the actual gold being held in sub-treasuries for safekeeping, while the Board itself merely held possession of certificates representing the title to the gold. Each Federal Reserve bank continued to carry its gold in the Gold Settlement Fund as a part of its reserves, representing it in this way on its books. Then from week to week the amount of the items due to other Federal Reserve banks was to be telegraphed to Washington and there offset on the books of the Gold Settlement (clearing) Fund. The result would be to bring about a general cancellation of the bulk of the claims between Federal Reserve banks.

The Gold Settlement Fund, as thus given a preliminary organization, was so successful and satisfactory in its working that on July 1, 1918, clearance was ordered to be made by telegram on a daily basis. The daily clearance eliminated many technical difficulties which had previously existed under the weekly settlement system and brought the clearance system in its national aspects very close to perfection. As has already been noted the Federal Reserve system prior to the entry of the United States into the war was still in a formative and elementary condition. With the arrival of a necessity for making enormous transfers from different parts of the country growing out of the immense loans placed by the Government, securities representing which were distributed all over the territory of the United States, the gold settlement fund took on an importance which could hardly be overestimated. Its weekly clearances assumed vast proportions from about the middle of 1917 onward. Indeed, had it not been for the existence of the clearance system the Government with its obsolete sub-Treasury method of collecting the proceeds of public loans would have found itself in an almost impossible position. After the placing of the gold clearance system upon a daily basis, the idea of clearance in this way attained so strong a foothold that the introduction of an international gold clearance fund as an element in the plan for the League of Nations was advocated. In recent months, average transfers made through the gold settlement fund have amounted to about $300,000,000 per day.

There was thus created a general national clearance system, although this was limited in its scope by the extent of the clearing carried on in the several districts under the intra-district clearance plan. It will be observed that there was still lacking any system for inter-district clearance—that it to say, no plan had been devised for the depositing of checks with a member bank if they had been drawn upon member banks in other districts. The lack of such a provision prevented checks thus drawn upon member banks in other districts from going through the Federal Reserve banks in the district in which the recipient of such checks was situated.

LOCAL CLEARING SYSTEM

In order to make the system effective a plan was early devised by the Governors of Federal Reserve banks for the establishment of a so-called voluntary clearing system which was to include only those banks that saw fit to join. Although a considerable number of member banks did voluntarily join this system, there were not enough to make it very effective, nor was the plan under which it was conducted sufficiently inclusive to insure success. Consequently the Federal Reserve Board itself developed and put into effect at the opening of July, 1916, a more general and effective plan of collection which has been developed from time to time and which is now in force. It has laid the foundation of a general, nationwide clearing system.

By the terms of this plan any bank which chooses to do so may deposit checks upon any other bank and these checks will be collected and the proceeds placed to the credit of the depositing bank. Such collections are not immediately credited, but credit is allowed only after the lapse of a stated time which corresponds to the period which experience has shown to be necessary for presentation and collecting the proceeds of such checks.

Member banks, as long as they comply with the statutory requirements, may continue to carry accounts with correspondent banks in other cities, or indeed with any banks to whom they may send items for collection and from whom they may receive, for similar purposes, checks drawn upon themselves or upon other banks. They are, however, required to pay without deduction checks drawn upon themselves and presented at their own counters for payment. Remittance of such checks by the Federal reserve bank of their district through the mail is construed as presentation at their own counters and they must settle with the Federal reserve bank for such checks, either by acceptable checks upon other banks, or by remittance of lawful money or Federal reserve notes at the expense of the Federal reserve bank. Checks drawn upon a member bank which have been received by the Federal reserve bank are not charged against its reserve account until sufficient time has elapsed for the checks to reach the member bank and for returns to have been received in due course by the Federal reserve bank.

Checks upon about 28,000 national banks, State banks, and trust companies throughout the United States are collected by the Federal reserve banks at par, and it is thought that in the near future checks upon practically all banks throughout the United States can be collected at par by Federal reserve banks.

Many banks had found it necessary in years prior to 1914 to scatter their available funds by maintaining balances with a number of correspondents for exchange purposes, or in order to control checks drawn upon themselves. Banks now, however, find it expedient to concentrate their balances more largely and to close many of the accounts which they have in the past carried with other banks. A system which enables them to send all of their checks on other banks to the Federal reserve banks for exchange purposes or as an offset against checks on themselves forwarded by the Federal reserve bank, is, therefore, a convenience. The release of funds heretofore tied up in accounts carried with other banks and their employment at higher rates of interest in commercial loans, offsets to a great degree the loss of exchange profits which was long looked upon with apprehension by some of the banks. To the business man the new clearance system has already proved an important economy, largely reducing the charges heretofore made him for check collection.

THE NEW CURRENCY ISSUE

It has been a principal cause of complaint of the existing currency situation in the United States for many years past that our medium contained no element corresponding to what is known as the "elastic" bank-note issue of other countries. There have been many kinds of currency, the principal kinds in circulation before the adoption of the new act being as follows:

(1) United States notes or greenbacks, legal tender in payment of debts.

(2) Gold certificates representing actual gold coin held as a trust fund in Washington.

(3) Silver certificates representing silver coin held as a trust fund against them in Washington.

(4) Currency certificates representing United States notes held as a trust fund in Washington or at sub-treasuries (issued only for the convenience of banks in very large denominations).

(5) Gold coin, legal tender in payment of debts.

(6) Silver dollars, legal tender in payment of debts.

(7) Silver subsidiary coin, legal tender in payment of debts up to $5.

(8) Minor coins of limited legal tender quality; and finally:

(9) National bank notes issued by the banks and protected by Government bonds deposited with the Treasury Department.

It is easily seen that of all these classes of currency and money which have been in circulation none could be increased save by the actual bringing of metal to the mint for coinage, with the exception of national bank notes. The latter could be enlarged in volume by the deposit of Government bonds with the Treasury Department, and the placing of a 5 per cent redemption fund in the same hands. Even in the latter case, however, it is clear that the amount of national bank notes which could be issued was limited in the aggregate amount by the total volume of United States bonds in existence, and was still further limited by the fact that many such bonds were held and used to protect public deposits, while still others were held by investors, and so were not available for circulation purposes. As the national bank currency had increased in amount until it absorbed practically all of the available volume of bonds, it has been apparent at certain times in the past that a great demand for notes could not be satisfied by the taking out of bank currency.

PLANS PREPARED TO OVERCOME EXISTING DEFECTS

In order to overcome the "inelasticity" of practically every element in the currency system various plans have been proposed. The experience of other countries and the theory of banking have both combined to indicate that there is no sound reason for differentiating between the protection accorded to notes and that accorded to deposits; but that what is sufficient in one case should be sufficient in all others, and that this (as the experience of our nation indicated) should be the best constituent of the assets of the banks—namely, sound, short-time commercial paper. The difficulty in applying this standard has been twofold:

(1) It has been contended that there was not sufficient sound paper of the kind required in the United States, and

(2) It has been urged that existing bank notes could not be displaced on account of the injustice to the banks which had bought bonds to deposit as security for the notes, and for other reasons.

The problem, therefore, of those who wished to introduce a more satisfactory method of issuing new currency was that of protecting the owners of existing bonds and at the same time of furnishing an adequate basis of undoubtedly sound commercial paper deposited to protect the issue of new notes. To attain these objects there have been offered many complex plans in the past, and an additional element of complexity has been added by reason of the attempt usually made to introduce special means of insuring the safety and goodness of the notes.

PROVISIONS IN THE ACT CONCERNING NOTE CURRENCY

When the Federal Reserve Act was in process of drafting, all these considerations were taken under advisement, and it was sought both to provide for the proper treatment of existing note currency as well as for the issue of new notes. Originally the Federal Reserve Act provided for the refunding of existing bonds, that is to say, the exchange of the bonds now outstanding for new bonds to bear 3 per cent interest, and the gradual retirement of national bank currency as this refunding proceeded. Provision was also made for the issue of bank notes by the several reserve banks, based upon the deposit of commercial paper of the kind made eligible for rediscount under the terms of the law; and the general purpose contemplated by the measure was that in the course of twenty years the existing national bank notes should be retired, and the new Federal reserve notes should take their place.

While the Act was under consideration in Congress alterations were introduced into it, and the machinery by which the purposes of the Act were to be fulfilled was altered, although it may be broadly said there was no change in the objects ultimately aimed at. Probably the most important alteration thus made in the terms of the law was that which designated the new Federal reserve notes as obligations of the United States, thus making them, in the technical sense, at least, a Government currency. Another important innovation was a provision whereby Federal reserve banks might be required by the Federal Reserve Board to buy national 2 per cent bonds held by member banks at a rate not to exceed $25,000,000 per annum, while they were to be permitted to issue a new kind of currency to be known as Federal reserve bank notes on the strength of the bonds which they thus acquired. The Act, therefore, provided for two new classes of currency:

(1) Federal reserve notes, and

(2) Federal reserve bank notes,

the former protected by commercial paper of the kind rendered eligible for rediscount under the terms of the law, the latter protected by national 2 per cent bonds purchased from the member banks of the system, or any other Government bonds owned by the national reserve banks having circulation privileges. The ultimate form of the Federal Reserve Act, however, provided for the conversion of 2 per cent bonds into 3 per cent bonds by Federal reserve banks, such 3 per cent bonds, moreover, to lose their privilege of deposit to protect circulation.

It will thus be seen that, under the terms of the Federal Reserve Act, the natural development would be substitution (at the end of a period of years) of Federal reserve notes or Federal reserve bank notes for national bank notes with accompanying retirements of these latter notes, through the conversion of the 2 per cent bonds protecting them, into 3 per cent bonds; while, in the meantime, Federal reserve notes based on commercial paper would be issued from time to time as demanded, in quantities sufficient to supply the elastic element in currency, and to fill up such gaps in existing national bank notes as might be caused through the retirement of note issues due to the conversion of 2 per cent into 3 per cent bonds not bearing the circulation privilege.

PRACTICAL EFFECT UPON CURRENCY

It is now time to see how this technical proceeding works in practice, and what has been the effect of it upon the average man the country over. Let us first observe with some care exactly what gives rise to a demand for currency and to consequent issues of Federal reserve notes. When A trades with B to the extent of $100,000 worth of goods he thereby creates a demand for some means of transferring the value of $100,000. This exchange may be made by the actual use of money, or by the drawing of a check.

Where the buyer of the goods does not have the means to pay for them he usually applies to his bank for accommodation, and such bank may meet his requirements by giving him a credit on its books technically known as a "deposit," or by issuing to him its own note or the equivalent thereof. There is no reason why the bank which is thus applied to, if it desires to grant the credit at all, should not give the accommodation in either form that may be desired by the customer. The customer is likely to be governed entirely by the demand of the people with whom he is dealing as to the form of payment required. In the case of the bill of goods for $100,000 already spoken of, it is probable that a check on the bank would be exactly what he wanted, in which case no question of note issue is raised. But it may also be that the funds are not wanted for a single payment of this kind, but that accommodation is sought for some purpose which necessitates a number of small payments to persons who do not or cannot employ bank checks. In this instance notes would be needed. Or it may happen that a bank discounts some paper for the purpose of getting notes with which to supply actual calls for currency made by its customers who are not necessarily borrowers but who want notes to carry in their pockets for the purpose of meeting demands from day to day.

What the Federal Reserve Act does is to permit a bank to take the promises of individuals to pay at the end of a designated period, indorse these promises with its own signature, and, by the deposit of them with the Federal reserve bank, obtain in exchange Federal reserve notes issued to that bank by a Government officer known as a Federal Reserve Agent. The fact that these notes are technically obligations of the Government confuses the situation to some extent, because it makes the transaction appear as if it were one which involved the Government in some way. As a matter of fact, it is the member bank's demand which gives the signal for the issue of the notes and determines how many of them shall come out; while it is the demand of the customer of the member bank which influences the action of that bank in applying for them.

Ultimately and in broadest terms, then, the provision of the Federal Reserve Act simply allows individuals to make their own obligations, based on commercial, industrial, or agricultural transactions, and then, by putting these through a local bank, to get note currency corresponding thereto. As long as their credit is good they can get the notes, provided that the Federal reserve bank is in a position to protect these notes amply with gold. Under the terms of the Federal Reserve Act this protection must amount to at least 40 per cent of the face of the note issue; and of this 40 per cent five per cent is deposited with the Treasury Department for current redemption, the other 35 per cent being held in the vaults of the Federal reserve bank which issues the notes.

A change introduced into the terms of the currency section of the act in 1917 has always been open to serious question and criticism. By the terms of that amendment it was provided that the 40 per cent gold reserve held by a Federal Reserve bank against notes is to be counted as part of the protection maintained by the bank against its outstanding circulation. The effect of this amendment was that whereas under the original Federal reserve act there was always 100 per cent of commercial paper and 40 per cent gold behind note issues, the new plan would permit the combined amount of gold and commercial paper to fall to 100 per cent of the outstanding notes. The currency is fairly elastic, inasmuch as it can be increased to the extent of two and one-half times the supply of gold available—100 per cent being two and one-half times 40 per cent—while it is safe, inasmuch as the protection is adequate to all ordinary requirements. Nothing limits the amount of notes that can be issued, therefore, except the needs of the business community and the adjustment of the country's gold supply to that of other nations.

THE EFFECT OF THE WAR ON CURRENCY

It should be frankly stated that the theory of currency issue which is thus set forth as having been embodied in the Federal Reserve Act has not effectively worked out in practice. From what has been said it will be plain that the essential and underlying idea of the Federal Reserve Act or of any legislation based upon the same general principle is that of using commercial paper growing out of live business transactions as a basis for currency. Whenever the paper which is discounted does not grow out of business transactions the basis upon which the theory of currency issue rests is changed. As has been shown at an earlier point, the entry of the United States into the war made it necessary to raise very large sums of money, and by the process of financing which was then employed these sums were first obtained through the issue of short-term obligations, which were made available as a basis for rediscount at Federal Reserve banks, and which were held by members banks, later, by the issue of bonds which could be collateraled in the same way. Thus the paper held by Federal reserve banks came to consist in no small degree of notes collateraled by Government bonds. Many of these loans were made merely for the purpose of enabling subscribers to buy and pay for Government bonds; others were made for purely speculative purposes. Neither kind of paper represented live transactions or provided a means whereby liquidation could be assured at maturity. The result was to destroy in large measure the effectiveness of the provisions contained in the law for the maintenance of elasticity in the currency, as the currency increased and as deposit credits were granted upon the books of Reserve banks through the rediscounting of notes collateraled by Government obligations, since there was built up a large structure of available funds which were not based upon commodities currently produced, but were based upon investment securities. This brought about what is known as inflation and along with a relative shortage of production as compared with demand, tended to raise prices very materially.

By the middle of the year 1920 the index number of prices, taking the year 1913 as a 100 per cent base, had risen to 273, and while this advance was by no means entirely due to banking causes, the inflation to which reference has been made no doubt contributed in an important way to the general result. During these years the currency issue of the Federal reserve banks rose from a merely nominal figure shortly after organization to about $3,100,000,000 at the middle of 1920, although a part of this growth represented a substitution of reserve notes for gold certificates which had been accumulated in banks. The later months of 1920 have seen a sharp fall in prices reflected in a decided decline of the index number, and aided by the gradual elimination of long term and speculative paper from the banks. Both inflation and deflation were painful processes, though the later was a necessary consequence of the former.

While Federal Reserve notes had been active in their movement into and out of the banks, thus showing a good redemptive power, they had not been elastic in the sense that they expanded and contracted freely as business fell and rose — in other words, they have not shown that close dependence upon and correspondence to the volume of business transactions which is the mark of an elastic currency. The reason is that the basis for credit at Federal Reserve banks has not been a pure type of business paper as had been expected to be the case.

FINANCING FOREIGN TRADE

One of the innovations provided by the Federal Reserve Act is found in the section relating to foreign branches. It has been a subject of complaint for a long time that the foreign trade of the United States was inadequately financed. National banks not being permitted under existing law to establish branches abroad, it has been felt that in many cases Americans doing a foreign business could not get the accommodation to which they were entitled. It has been asserted that in those countries where the foreign trade of the United States was still limited in amount and undergoing development subject to more or less severe competition, the problem of securing adequate funds for the trade was particularly difficult.

This state of affairs was fully recognized throughout the later years of the agitation for new banking legislation. In the National Monetary Commission's investigation and report much attention was given to international relationships, and the report dwelt extensively upon the need of a better method of financing the exports of the United States and the foreign trade of the nation in general.

When the Federal Reserve Act was under consideration, it was at first thought that the plan of joint association of banks for the establishment of branches would be the more desirable provision, but subsequently this view was abandoned; and in the final Act provision was made for permitting any national bank having a capital and surplus of not less than $1,000,000, to establish foreign branches. It was left to the Federal Reserve Board to determine by regulation about how much capital should be allotted to such branches, and what should be the conditions surrounding their establishment. Owing to the demand of business organizations, however, the Act was further amended on September 7, 1916, by providing that national banks might join together for the purpose of organizing other banks to engage in foreign operations under carefully guarded condition. A few such banks have been organized but the movement has not gone far.

The Federal Reserve Act, however, approached the question of financing foreign trade not only from the standpoint of the machinery involved, but also from that of practical business methods. It is well known that foreign business generally is transacted upon the basis of standard paper known as "acceptances." The National Bank Act, however, never legalized the use of acceptances, and they had, therefore, been regarded as a prohibited type of paper. The result is that they had not figured to any great extent in American banking practice. There was nothing to prevent State banking laws from providing for the use of acceptances, but such laws have usually been modeled upon the National Bank Act, and had, therefore, been accustomed either to ignore the acceptance question or to prohibit this form of paper. The Federal Reserve Act provided that any national bank might accept paper growing out of actual commercial transactions involving the importation or exportation of goods, and having not more than six months to run; while it also authorized Federal Reserve banks to rediscount such acceptances when indorsed by member banks, or to buy them in open market whether with or without the indorsement of member banks.

How this provision bears especially upon financing our foreign trade, and what are its important indirect effects upon banking and commercial operations generally, may be understood by reference to prevailing methods of financing foreign trade. In trade between foreign countries the method of procedure is somewhat as follows: A merchant, A, in Buenos Ayres, ships coffee to B in Liverpool. It is agreed that B will accept the draft accompanying the coffee at ninety days sight. It may be, however, that A, when shipping the coffee, desires to arrange for a credit that would enable him to liquidate very promptly. He may, therefore, have agreed with B that his draft for the coffee shall be accepted by a Liverpool bank. This bank is induced by B to agree to accept the draft when it is presented. B may protect the bank in some special manner if the institution demands such action, or he may simply have made a satisfactory statement and showing to the bank so that that institution is willing to accept the draft in consideration of a moderate commission or discount paid it by B for the service. When it has thus accepted the draft—that is, agreed to pay it at maturity,—the paper becomes the obligation of a bank of known standing, and is, therefore, readily salable to some other bank. The discount on it will consequently be low, and the original drawer of the draft will be able to get his money immediately with little sacrifice. This means that he can sell very much more closely than would otherwise be possible, because he knows that he will lose very little money in the form of discount or interest.

WAR AND TRADE FINANCE

As in the case of other phases of our banking development, the financing of our foreign trade has been influenced in a very important way by the war. It first had seemed probable that the war would give us an important leadership. After we entered the struggle the financing of goods going abroad was, however, largely taken over by our Government by reason of the fact that it extended great credits to foreign countries which used them in paying our exporters. After the close of the war and the withdrawal of the Government from this phase of its financial cooperation with the Allies, there was a period of uncertainty during which American banks were endeavoring to get back into the field of foreign trade financing.

The year 1919 and the beginning of the year 1920 were a period of reaction during which the extremely favorable conditions which had worked in behalf of the development of New York as an international market were largely reversed or neutralized. British banks and British commercial houses naturally took advantage of the situation to get back as much of their lost foreign trade and foreign connections as they could. One result thus, was that, partly in consequence of erroneous policies in the United States, partly owing to incidental conditions over which Americans had no control, and partly as a result of the cumulative effect of war shortage of capital (which had been masked during the continuance of the conflict and suddenly allowed to appear upon its close,) the retrogression, during the sixteen months since the armistice, in American banking participation in foreign finance and business was much greater than it would normally, or perhaps ought to, have been.

How serious such retrogression has been in some instances may be illustrated by the case of one of the leading financial institutions of New York which during the year 1919 was said to have lost about two-thirds of its entire foreign bank deposits. The real character of the problem was also seen from a study of the bankers' acceptance situation. Whereas during the year 1919 there was a continuous increase in the volume of bankers' acceptances created, the acceptance being widely used for the purpose of financing the great foreign trade of the United States so that acceptance liabilities of the New York district which were estimated at about $275,000,000 since September 1, 1918, were about $335,000,000 on December 31, 1919, the distribution of this increased volume of bills became more and more difficult. Not only did discount houses and dealers in bills have to carry larger "portfolios" often requiring for that purpose funds obtainable only at rates equal to or higher than those earned by their portfolios, but Federal Reserve banks found it necessary to absorb an increasing amount of bills in the open market, while advancing their rates during the year from 4¼ per cent to 5 per cent on 90-day paper.

The natural consequence of this situation was to drive a great deal of financing abroad which would otherwise have remained in the United States, and the prevalence of such conditions for a long period of time necessarily would make probable further such transfers of financing.

To sum up the whole situation—American banking institutions have made only a relatively small degree of progress abroad. What they have done they have done in such a way as to avoid so far as possible competition with the banking systems of the other nations. Federal Reserve banks have likewise been very cautious about incurring losses due to purchases of exchange, while they have also sought to steer clear of undue competition with foreigners. The disturbed conditions succeeding the armistice have worked very greatly against the general development of international finance which the American banking system had unconsciously, and in a sense involuntarily, taken upon itself during the war. Ground is being lost in international financial relationships and the question of how far a recovery will be possible depends upon a variety of large factors, such as the policy of the Federal Reserve system, the degree of success in the establishment of a discount market, and others of the same sort. The future of American banking in the foreign field is certainly beyond the power of prediction at the present time.

RELATION TO GOVERNMENT

One of the features of the Federal Reserve Act which has already proven of greatest importance is found in its relation to the Government. Ever since the passage of the Independent Treasury Act in 1846 there had been an effort on the part of the Government to keep as much of its funds as possible in subtreasuries. The plan was unsuccessful because when large surpluses accumulated they were withdrawn from actual commercial use, and caused a corresponding shrinkage of bank reserves, while if the Treasury redeposited these funds with national banks the distribution was not always wisely made.

The Federal Reserve Act, in view of these considerations, endeavored to effect two distinct changes in the existing relations between the Government and the reserve institutions:

(1) It provided for the depositing of Government funds in Federal Reserve banks, which were authorized to act as "fiscal agents," and

(2) It authorized Federal Reserve banks to deal in Government securities.

These provisions enabled the Government to become a depositor at Federal reserve banks in common with the various member banks of the country, and, through the permission of the reserve banks to trade in Government securities (while acting as fiscal agents), practically enabled the Government to resort to the banks for accommodation should it desire to do so. In one very special way an important relationship is established between the Government and the Federal Reserve banks. Provision was made, as has been seen, in connection with our treatment of the currency question, for the gradual transfer, at a rate not exceeding $25,000,000 per annum, of the national bonds now held by the national banks to the Federal Reserve banks. The reason for introducing this provision is found in the fact that in order to bring about an improved currency situation it was necessary to deprive the national banks of their exclusive power of issuing notes based on Government bonds. This, of course, meant that in all equity the banks must, at some reasonable time, be relieved of their bonds at a fair figure. The Federal Reserve banks, by taking over these bonds, were gradually to mass the securities in their own hands, and consequently relieve their individual members who have disposed of their securities. Ultimately, it was assumed, the bonds would be refunded, or otherwise provided for by the Government of the United States upon some satisfactory basis.

At the beginning of the year 1916 the Secretary of the Treasury designated the several Federal Reserve banks as depositories, transferring to them the funds of the Government previously located in national banks in the twelve Federal reserve cities, although he retained the funds located elsewhere in national banks, just as before. The effect was to give to the Federal Reserve banks an aggregate deposit of about $30,000,000 at times, while they were, on the other hand, called upon to conduct an active checking business for the Government. The process of converting the 2 per cent bonds into 3 per cent bonds proceeded steadily through the intermediation of the Federal Reserve banks until the entry of the United States into the war, $30,000,000 having been so converted during the year 1916, while the Treasury announced its willingness to convert a like sum during 1917. But with the opening of the war conditions entirely changed.

A description has already been given of the great service performed by Federal Reserve banks as sellers of Government obligations and as discounters of paper secured by these obligations during the war, and hence need not be recapitulated at this point. It is only necessary to say here that the war left the Federal Reserve system as practically the recognized fiscal agent of the Government and that this service has been continued in the handling of short-term certificates of indebtedness up to the present time. Congress, moreover, at the session of 1919-1920 voted to abolish the sub-Treasury system, an action which transferred important trust and routine functions to the Federal Reserve banks. From this time forward, therefore, the relationship between the Reserve banks and the Government will necessarily be somewhat that which exists in foreign countries, the banks serving as the active agencies of the Government in the conduct of its ordinary business affairs.

SERVICE OF FEDERAL RESERVE SYSTEM

From the foregoing description it will be seen what are the purposes and success of the Federal Reserve system up to the present time. It is essentially a means of combining the resources and strength of a considerable number of banks for the purpose of obtaining the benefits of united action.

A review of the detailed provisions of the measure shows that, while the conception of banking reform upon which it is founded is the same that has constituted the staple of the banking reform movement of recent years, and while the conception of a union of banks is directly borrowed, as in other bills of the years 1900-1910, from the actual practice of the banks themselves as developed under the stress of circumstances in the form of clearing-house organizations; while, moreover, certain phases of the technique of the legislation itself followed the lines of the Aldrich or Monetary Commission bill, and while other portions of the Act have been adapted from well-known legislative proposals that have figured within the past few years of banking discussion, the Act as a whole is based upon a conception and plan entirely its own, applies in many fundamental respects methods of control and administration that have been given at least a new form, and includes several important innovations, not heretofore conspicuous in banking discussion although admittedly significant, not to say necessary, to any thorough reorganization upon sound principles. That the Act also contains some elements that may be regarded as reminiscences of the less desirable and more objectionable phases of banking agitation, is equally certain. These are seen, for instance, in the underlying concept of the Federal reserve notes, which are thought of as government currency loaned to banks, and are thus at least theoretically, although not practically, in line with so-called "government currency" schemes of past years. Fundamentally, the system is based upon experience and upon proved workable principles.

H Parker Willis