Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

The
American Economic Review

VOL. VII SEPTEMBER, 1917 No. 3

THE RESERVES SITUATION IN THE FEDERAL RESERVE SYSTEM

We are passing from a debtor to a creditor nation; we have come to hold a disproportionate share of the world's gold; our provincial finance is being transformed into a cosmopolitan finance; banking and financial problems, of huge proportions and in new spheres, are pressing for immediate solution. Luckily the reconstruction of our banking mechanism was well under way when Mars let loose his dogs of war in 1914; we had taken measures to supplant our rigid, restricted, decentralized national bank system with an elastic, freer, centralized federal reserve system. Among the chief elements of strength in a banking system are its reserves and the mechanism by which they are controlled. Size, mobility, and composition are the three factors of strength in bank reserves; they make for safety, elasticity, and accommodation. The federal reserve scheme changed the size, quality, location, and control of our bank reserves; it purposed to make them a more effective defense against panic and a more serviceable agent for accommodation to the business world; the primary reserves were to be rendered so mobile and consolidated and the secondary reserves so convertible that the size of the primary reserves might actually be reduced and yet provide greater safety, elasticity, and accommodation than were realized under our old banking scheme. It will be the aim of this article to present these changes and to note wherein expectations have or have not been fulfilled and how the original plan has been amended.

Reserves against Deposits

Secondary reserves: (1) *of the federal reserve banks.* Since the member banks are stockholders of the federal reserve banks they have the same interest in dividends as do stockholders in an ordinary bank. The Federal Reserve act provides that member banks as stockholders are entitled to receive an annual 6 per cent cumulative dividend on their stock. Up to 1916 the twelve federal reserve banks earned a net half million dollars and during 1916 two

and three quarter millions. The sum of these does not provide the 6 per cent; in fact, the figures for the whole system average about 3 per cent for the two years and 5 per cent for last year, on the yearly average paid-in capital of $55 millions. By the first of the year all the banks had declared dividends; when declared they are at 6 per cent and postdated to cover accumulated arrears between certain dates. Richmond has hers paid till October, 1916; Atlanta, till June, 1916; Dallas, till April, 1916; but New York, St. Louis, and San Francisco have not yet cleared their 1915 arrears. During 1916 three banks earned more than 6 per cent, eight more than 5 per cent, and ten more than 4 per cent. The system has, therefore, to date, in the light of the money market, been a net burden on the member banks.

Some persons believe this burden will be perennial, some are confident the federal reserve banks will ultimately pay their way. Let them become well established and get their organization expenses amortized; let them become better known and much used by member banks for rediscounting; let them develop their open-market transactions, particularly in acceptances; let them be freed from the handicaps created by war conditions—and it is expected they can earn their 6 per cent dividend and be self-sustaining. They are expensive institutions, but not too expensive for the service they render. It is, of course, wrong in principle to judge the usefulness of the federal reserve banks by their earning capacity. They are dominated by a public interest, not a profit-making interest; the public interest may necessitate that they enter into transactions which will result in little if any profit.

Nevertheless, the fact of these low earnings has had a most telling effect on the attitude of the national and state banks toward the system, and has, together with other matters relating more directly to bank reserves, occasioned the chief movements for changing the system by legislation and board regulation. One of these movements is to reduce or abolish the capitalization of the federal reserve banks. The argument, occasioned as it was by the low earnings of the capital stock, was that the choice of 6 per cent subscriptions was arbitrary and a guess at what the capital requirements would be, and that the mere liability of the banks for the required capital would have been as effective as its payment; that the paid-in capital created a dividend responsibility which forced banking operations and earnings, *i.e.*, forced the reserve banks into competition with the member owners, in open-market

operations; and that the gold reserves paid into the reserve banks would be ample to take care of the rediscounting needs; and, finally, that these subscription requirements discouraged state banks from entering. Efforts to obtain legislative relief from Congress have failed; such relief was opposed by the Federal Reserve Board and by a majority of the Advisory Council. The capitalization serves many useful ends; it provided an initial working capital; it gives the members a decided interest in the reserve bank other than mere depository; it provides resources sufficient to insure stability and continuity for the reserve bank; and it furthers (or, as alleged, necessitates) more extensive open-market operations, which are the instruments by which the board and reserve banks will, it is hoped, master the banking situation.

By open-market operations the federal reserve banks will, when the system is developed, control the money market. It is their means of making the market rate conform to the rediscount rate set by themselves and the board. By becoming an active factor in the market, buying and selling at the established rates, they can make the rediscount rate effective in the market; otherwise, whether it would be effective or not would depend wholly on the extent to which member banks chose to rediscount. By this means the reserve banks will be enabled to maintain a reasonable and stable interest rate.

But this power of control is possible only if the reserve banks have a substantial amount of loan funds at their disposal and if the open-market purchases are commercial papers and if a really broad discount market exists. The recent growth in banker's acceptances both existing in the market and bought by the federal reserve banks indicates that these banks are beginning to assume somewhat the place which the Bank of England fills in the English discount market. The board's policy is to suggest to the federal reserve banks a substantial reduction of their earning assets when money is easy, thus absorbing much of the idle funds on the market; for instance, in order to absorb part of the great gold imports during the latter part of January and early February, purchases of acceptances fell off and United States bonds were sold, raising the reserves $33 millions; and in anticipation of the declaration of war the earning assets were reduced from $222 millions at the beginning of the year to $167 millions at the outbreak of the war. The reserve situation was therefore so exceptionally strong as to stifle all uneasiness. On the other hand, if money

tightens, as it did the first week of last December, besides the increase of rediscounts to $38 millions on December 7, the earning assets were increased by open-market purchases, thus releasing federal reserve notes and the legal tender funds of the central banks and easing rates. Now if the volume of commercial bills on the open market can be increased to some amount comparable with the volume on the English discount market and the loanable funds of the federal reserve banks can be increased *pari passu*, it will be altogether possible for the federal reserve system to control the international gold flow and defend our financial system in times of peace against wide fluctuations in money market rates and in the wake of the war against too sudden and great efflux of gold.

The advisability of having a paid-in capital stock for the federal reserve banks and of thus creating a dividend responsibility has been shown open to dispute, and, later in this article,[1] it will be shown inadvisable for the federal reserve banks to pay interest on balances carried for member banks according to reserve requirements. To create such an interest obligation would necessitate that the federal reserve bank invest too large a proportion of its assets, including these reserves, in securities which are characterized by their good earning power rather than by safety and convertibility in times of emergency. It is the established custom among European central banks to pay no interest on deposits. Reserve banks must maintain their reserves in gold or in self-liquidating short-term commercial instruments or in securities readily convertible without sacrificing values even in times of panic. Call loans, too, were eliminated by the very theory and purpose of the Federal Reserve act. The range of investments for the reserve banks is thus very limited; practically all their earning assets must be quick assets and act as secondary reserve. Yet under the banking scheme the investment of some funds is necessary to pay running expenses and dividends on capital stock; but the element of liquidity must ever be transcendent in this secondary reserve.

The total earning assets of the twelve reserve banks have averaged for the first four months of 1917 $202.7 millions, which is 22 per cent of the average total resources. Of these total earning assets an average of 61 per cent has been composed of commercial paper of the highest quality, namely, rediscounts for members and acceptances bought in open market. The municipal warrants and treasury notes, as well as the certificates of indebtedness issued in

[1] See page 519.

anticipation of Liberty Loan subscriptions, also have early maturities, and the bonds held are United States bonds for which the market is generally good. It is therefore apparent that nearly all of the assets of these central banks are carried in legal tender state, or in the most liquid forms of investment known, and as secondary reserves conform to the accepted standard and ideal for central banks.

But the earning power of such investments is low. Calculating the earnings to an annual rate it appears that rediscounts are the most profitable form of investment and municipal warrants second, and the average rate of earnings is about 3 per cent. The government bonds pay but 2 or 3 per cent; the acceptances constitute a large fraction of the investments and the rate of discount on these is very low because they are bought in open market in competition with other banks all of which are suffering from a plethora of gold; and the volume of rediscounts is very small, owing to several reasons but chiefly to the abundance of money everywhere at extremely easy rates.

Secondary reserves: (2) of the member banks. By reason of the wide variety of investments of the member banks and the want of strict standardization in these investments it is quite impossible to determine, considering the system as a whole, the quality and amount of their secondary reserves. A few pertinent matters may, however, be presented. One of these is the relative increases of the various resources. On June 30, 1916, the national and all other banks reporting to the Comptroller owned $6,057 millions of long-term securities exclusive of their $760 millions of United States government bonds. From June, 1914, to June, 1916, the aggregate capital and surplus of all the banks increased 5.1 per cent, while their investments in stocks and bonds other than United States bonds increased 27.2 per cent. Compare the figures as given for the March and May calls of 1916 and 1917:

	March 3, 1916	March 5, 1917
U. S. bonds (000,000)	$753	$ 714
Other bonds	1,465	1,770 (27.6 per cent) increase
Total resources	13,839	15,979 (15.5 ") "
	May 1, 1916	May 1, 1917
U. S. bonds (000,000)	$739	$768
Other bonds	1,526	1,857 (21.7 per cent) increase
Total resources	11,127	13,075 (17.5 ") "

It is seen that for the national banks during the past year the fraction of total resources composed of long-term securities has increased remarkably. The banks are converting a larger per cent of their cash into bonds, commercial banking is yielding to investment banking, the commercial loan fund is drifting to the finance market. War finance is likely to accelerate this drift. But it is a tendency fraught with danger; and the board, the council, and the American Bankers' Association have all issued counsels of moderation in such purchases.[2] The board believes that "whenever the absorbing power of the investment market shows signs of exhaustion it would be better that the volume of our exports be reduced, or that trade balances in our favor be settled by imports of gold, than that our banks, especially those of moderate size, should unduly extend their investments in foreign securities at a time when business prudence and conservation suggest the necessity of their maintaining themselves in a particularly strong position."[3] "Strong position" comes by high liquidity of assets and our repeated experiences with the securities market as a place for instant liquefaction of assets in panic times are warning enough. The cause of this accelerated growth of long-term investments is that deposits have increased faster than loans and bankers have been hard pressed to find openings for their funds in commercial lines.

As yet the liquidity of bank reserves in general has not been greatly increased by bank and trade acceptances; their volume is small and a considerable fraction of them are renewal acceptances.

Primary reserves. The attempt to obviate subscriptions to the

[2] On June 13, 1917, the Comptroller expressed the opinion that the national banks "could reasonably and conservatively" subscribe on their own account at least 6 per cent of their total resources to the Liberty Loan.

[3] One particular instance of the guardianship which the board exercises over the composition of their secondary reserves occurred in November when the board issued through the press a mild and somewhat cryptic statement suggesting caution and moderation in the purchase, by the banks of the federal reserve system, of British Treasury bills, which, "being open for a long period of renewals, lose their character as essentially self-liquidating transactions of short maturity." It was a caution not to accept too freely paper which they will find necessary to extend by successive renewals and eventually convert into a long time investment. In November it was a practical certainty that any such volume of Treasury notes as was proposed to be placed in our banks could not be taken up at their maturity or even after repeated renewals and that the foreign borrowers were assimilating our commercial banking resources and our investment resources.

capital stock of the federal reserve banks was part and parcel of other attempts to escape the redistribution of reserves, as required by the act. The following table gives the reserve requirements under the National Bank act and the Federal Reserve act and amendments, and the allocation of the reserves as between the vaults of the bank itself and those of the reserve banks.

DISTRIBUTION OF RESERVES OF MEMBER BANKS

	Central reserve banks	Reserve city banks	Country banks
(a) Under the National Bank act:			
Total *vs.* demand deposits	25 per cent	25 per cent	15 per cent
In its own vaults	all	1/2	6/15
In approved reserve banks (permissive)	.....	1/2	9/15
(b) Under Federal Reserve act until amendment September 7, 1916:			
Total *vs.* demand deposits	18 per cent	15 per cent	12 per cent
Total *vs.* time deposits	5 per cent	5 per cent	5 per cent
In its own vaults	6/18	5/15 (6/15)	4/12 (5/12)
In federal reserve banks	7/18	6/15(3/15+1/15)	5/12(2/12+1/12)
In either	5/18	4/15[1]	3/12[1]
(c) Under amendment of September 7, 1916:			
Total *vs.* demand deposits	18 per cent	15 per cent	12 per cent
Total *vs.* time deposits	5 per cent	5 per cent	5 per cent
In federal reserve banks	7/18	6/15	5/12
In either	11/18	9/15	7/12
(d) Under amendment of June 21, 1917:			
Total *vs.* demand deposits	13 per cent	10 per cent	7 per cent
Total *vs.* time deposits	3 per cent	3 per cent	3 per cent
In federal reserve banks	13 per cent	10 per cent	7 per cent

[1] During first three years some may be carried in national banks in reserve cities and central reserve cities.

It will be noted that the federal reserve plan was: (1) to substitute the federal reserve banks for central reserve city and reserve city banks as reserves depositories, which substitution was to be effected by three semi-annual payments; (2) to reduce the reserve requirements against *demand* liabilities and, very much more so, the reserves against *time* deposits, for the first time particularized. The board early became ambitious to concentrate

the gold holdings of the member banks into the federal reserve banks, and Congress following its recommendation, in September, 1916, amended the act of 1914 so as to permit the members to transfer to the federal reserve banks that part of their reserve formerly required to be kept in their own vaults. But the member banks failed to respond to this permission, though solicited earnestly by the federal reserve banks. The board, accordingly, decided to compel the transfer by legislative enactment, secured June 21, 1917, which prescribes only the per cent to be held with the federal reserve bank and lets the member keep what till money it finds expedient. The bills proposed by the board, the council, the House committee, and the Senate committee, though differing slightly in details, agreed in the two ideas of reducing the percentage of reserve and in concentrating the reserves in the federal reserve banks. The new banking system shows, therefore, two very obvious movements—the reduction and the concentration of reserves.

The argument for concentration of reserves is that their efficiency would be increased. The total reserve may remain practically unchanged, but when pooled in twelve banks rather than scattered among 7,500 banks it partakes of the quality of a safety fund or insurance; in the federal reserve vaults it is sure to be liquid and "can be effectively protected when not required and effectively used when needed."

The effectiveness of the system depends upon universal confidence in its ability to meet any possible situation and such confidence is best inspired by reserves so large as to put away all speculation about it. During the war, big exports have surcharged our financial institutions with a disproportionate part of the world's gold, and many are justly apprehensive lest at the conclusion of the war this will have to be given up in great part. As will appear later in this article in the discussion of federal reserve notes, such demands would bear less heavily upon our credit system if the reserves were surrendered through the federal reserve banks rather than the member banks. The reserves ought therefore to be built up to such size as to meet any possible export demand without shaking the structure and inciting domestic demand. Since the federal reserve banks have supplanted the banks of the New York clearing house as the guardians of our finances, irreparable damage would result to the federal reserve system should it fail to meet the export situation; particularly should the gold reserves of the

federal reserve banks of New York and San Francisco be large, for the drain would be heaviest from these great shipping ports. In the light of the immense imports of gold since the war opened and of the gold produced within our domains, the reserves held in the federal reserve banks make it evident that so far the system has lacked "adequate powers to attract and conserve the gold reserves of the country." The June amendment will improve the situation by forcing a transfer of about $400 millions from local to central bank vaults.

The member banks have not generally approved the proposal to further concentrate reserves. In part this reluctance is pure sentiment, a hesitancy to part with gold which has gathered the dust of decades in their vaults. But in part this reluctance is upon a reasoned basis. It is argued that the larger the proportion of the member reserves carried with the federal reserve banks the greater is the amount that the reserve banks can use in competing with the member banks in the open-market; and that these concentrated reserves may vanish through re-use by the federal reserve bank, whereas if they are kept in the members' vaults they are intact, cannot be juggled with nor diminished; that if used by the federal reserve bank as the basis of note issue they may inflate the currency two and a half times their amount, or if used to purchase items on the open market they may get back into bank vaults and become the basis of further deposit currency.

In the call of November 17, the Comptroller revised his method of reporting reserves; the items "reserve in vault" and "reserve in federal reserve banks," which had formerly been reported separately, were combined in one item. It was felt that since the adoption of the *ruling* making it optional with members to keep reserves in vault or in federal reserve bank, "these items might properly be consolidated, just as similar figures are combined in English bank statements, and that such consolidation would be a final recognition—that deposits with the federal reserve bank are practically interchangeable (so far as reserve availability is concerned) with cash in vault."

One other and very important amendment was proposed by the board relative to the control and concentration of reserves, viz.:

> To meet extraordinary conditions, probably such as threatened financial panics resulting from a declaration of war or the cessation of hostilities in Europe—the Board may upon an affirmative vote of five of its members require member banks to increase the balances which

they must keep on deposit with their Reserve banks; these increased balances can be required, however, for a period of but thirty days. This increase shall at no time be more than one-fifth and at the same rate for all banks of any one district, and the Board is to report to Congress the conditions on which such action is based.

The board argued that this provision would enable it in prolonged periods of extreme ease in money markets to check any tendency toward excessive loans or undue extensions of credit. In considering this proposal it is to be remembered that in cases of emergency the board has, by the terms of the Federal Reserve act, power to suspend for thirty days and to renew such suspension for periods of fifteen days, all reserve requirements of the act. This new proposal is therefore based on the same principle, namely, that banking is better regulated by judgment of a body of experts than by law. The presumption is at all times against statutory regulation of matters of business discretion; it is strengthened just now by the utter impossibility of forecasting what conditions will arise during the present troublous times and of making adequate provision by law for contingencies. And the ill-effects of "letting such matters be controlled by thousands of banks acting each for itself and none with any duty regarding national or international affairs" are too well known. The world's best banking systems are least regulated by law with respect to reserves. Our new system can attain its maximum efficiency only by allowing to the governing board "as broad discretion as prudently can be granted" in using the tools of the system, of which the gold reserves are prime. Power to increase the required reserves would not be as dangerous as the power to lower reserves, which power the board already has.

But this amendment failed of adoption. The House committee by close vote rejected the proposal. The council advised that it would be undesirable and unnecessary to grant such powers to the board; it argued that "the effect would be that member banks would be compelled to increase their non-interest bearing balances with the federal reserve banks, while non-member banks would have the free use of their funds. It would place another stumbling block in the way of State banks joining the system." It would "cause considerable disturbance and apprehension on the part of bankers who had regulated their business according to prescribed standards of reserve, if they suddenly had to curtail their operations on a word" from the board. Many express the opinion that the concentration of power in the hands of this limited body of men has

already approached the bounds of safety and this further grant would introduce unwarranted "officiousness and arbitrary action." The question appears, therefore, to turn upon the principle of government regulation of banking operations, and though the banks acquiesce in the principle to the degree of permitting the board to lower the reserve requirements they are unwilling to allow the board to raise the reserve requirements.

But the main contention of the country banks against the federal reserve system has been the loss of interest on their reserve balance. Provision was made in the Federal Reserve act for the transfer of reserves formerly kept with the reserve city and central reserve city banks to the federal reserve banks. This transfer was provided for by three semi-annual payments. Until November 16, 1917, a decreasing fraction of the reserves might be held in the correspondent banks. By amendment of June 21, 1917, this permission was withdrawn and thereafter all reserves have been carried in their own or the federal reserve banks' vaults.

The evils of our former system of redeposited reserves are too well known to be dwelt upon. It rested upon the theory "that, inasmuch as a balance with another bank was presumably payable on demand, it was equivalent to cash in the vaults of the creditor bank, and should therefore be classified as 'reserves.' " This principle was tenable only so long as these reserves were used merely for providing exchange and the funds were held there in fluid shape. But when the central banks began to compete for these balances and offered interest to attract them, it became necessary to invest these funds, and they developed the call loan for use in the speculative exchanges. This resulted in high values and wild speculation in times of emergency, and in shrinking values and depression in times of tight money; the sacrifice of security values to recover reserve balances wrought bankruptcy and panic and suspension of specie payments.

Mr. Glass, in his report on the Federal Reserve bill, defined its purpose to be "to readjust reserve requirements in such a way as to make them conform to the dictates of scientific banking" with the following "main objects":

1. To abolish entirely the present system of redeposited or pyramided reserves.

2. To establish a moderate required reserve actually to be held in cash in the vaults of the bank.

3. To prescribe a secondary reserve to take the form of a credit with the federal reserve banks.

It has just been shown that this second object has, by amendments, been given up and the real (or whole) reserve of the member banks is to be its credit with the federal reserve bank. This brings out how fundamental is the change now working in the conception of the federal reserve system. It has also been shown how, by the shifts in reserve requirements, counting balances with correspondents as reserves has now become a thing of the past. Both features concentrate a tremendous responsibility upon the federal reserve bank, and the sufficiency and liquidity of its primary and secondary reserves are the palladium of our financial system. The reserves must be kept in gold or in the forms of securities which have the very highest degree of convertibility. Call loans with securities as collateral have proven disastrous. The federal reserve bank must seek investments from the point of view of convertibility and safety and not be forced to care much about their earnings capacity. The success of the whole system therefore depends on their freeedom from obligation to pay interest on reserve balances. In the Federal Reserve act there is no express provision prohibiting the federal reserve banks from paying interest on balances, but the evident intent of the act and the necessities of its successful operation require such prohibition in practice.

But this loss of interest has been a serious irritant against the federal reserve system. It has provoked movements for the reduction of reserves, for the permission to continue to count balances with correspondents as reserves, and for relief from the final payment of reserves to the federal reserve banks. The banks get large, if not ample, compensation for this loss of interest by way of increased loaning power on the basis of the reduced reserves required, but, since this gain is less easily allocated and since banks have found it difficult recently to increase their loans as fast as their deposits and take advantage of the lower reserves, they feel the loss of interest.

This reserves question is inextricably interrelated with the new "par collections" system. It is impossible in the compass of this article to give the history of this very important part of our new banking plan or an adequate exposition of the mechanism and its operation. Carrying out a permission granted by the Federal Reserve act, the board, after experimenting unsatisfactorily with

a "voluntary reciprocal" collections scheme, set up a universal mandatory par collections plan July 15, 1916.[4]

This requires each federal reserve bank to receive for collection and credit at par from its member banks checks and drafts drawn upon all members of the federal reserve system; and, also, on all non-members when such checks and drafts can be collected by the federal reserve banks, through members or otherwise, at par. Lists of such non-members whose items can be collected at par are published. Immediate credit entry upon receipt subject to final payment is given for all such items upon the books of the federal reserve bank at full face value, but the proceeds are not counted as reserve nor become available to meet checks drawn until actually collected. Checks received by a federal reserve bank on its member banks are forwarded direct to such member banks, and are not charged to their accounts until advice of payment has been received or until sufficient time has elapsed within which to receive advice of payment. In order to enable member banks to know how soon checks sent in for collection will be available either as reserves or for payment of checks drawn against them, time schedules giving the minimum time for collection are furnished by each federal reserve bank to its members. Where a member bank does not have sufficient volume of items to offset at the federal reserve bank items sent to such member by the federal reserve bank, such member may ship lawful money or federal reserve notes in payment, at the expense of the federal reserve bank. And the board has fixed a penalty to be imposed upon member banks for encroaching upon their reserves. The cost of clearing and collecting checks and drafts is assessed by the federal reserve bank against the bank depositing such items with it. This cost is known as a "service charge," and is so much per item.

Attention is called to the point as to wherein the plan is compulsory and wherein it is not. The member banks must comply with the statutory requirements about reserves; they are required to pay without deduction checks drawn upon themselves and presented for payment over their counter or by mail from the federal reserve bank and must settle with the federal reserve bank either by acceptable checks upon other banks or by the remittance of lawful money or federal reserve notes at the expense of the

[4] By the Hardwick amendment June 21, 1917, "*par* collections" becomes somewhat a misnomer, since members are now permitted to charge up to 1/10 per cent for exchange under certain conditions.

federal reserve bank. It is not compelled to give up its former correspondents and may continue to send its checks to them for collection rather than to the federal reserve bank and it will for a time at least continue to receive from its old correspondents checks against itself for similar purpose. It may carry balances with such correspondents as before and receive interest on such balances. But such balances have not, since the amendment of June 21, 1917, been counted as reserves. And the member banks will not have funds sufficient to carry (1) their reserve requirements with their federal reserve bank and a surplus fund also with this bank to cover the exchange balances and insure themselves against penalties for cutting into their reserves, and (2) balances with their correspondents sufficient to warrant the correspondent to perform the wonted services and pay the usual 2 per cent interest. If the member bank continues to carry the former size balances with its correspondents it must ask and is justly entitled to a higher interest rate than 2 per cent, or some additional services, since the former collection services are for the most part no longer performed by the correspondents. The alternative is to seek liquid investments themselves for their surplus funds, or to carry them locally. That these alternatives are being used appears, among other indications, (1) from the accelerated growth of long-term investments by the member banks and (2) from the relative decline of reserves held by central reserve and reserve city banks and from the relative increase in the reserves held by the country banks.[5]

Among the amendments proposed by the board last January and enacted June 21 was one to permit non-member state banks and trust companies, even though too small to be eligible to membership in the federal reserve system, to avail themselves of the clearing and collection facilities of the system, provided they cover at par checks on themselves sent for collection by the federal reserve banks, and provided also that they keep a compensating balance with the federal reserve bank of their district in an

[5] According to the Comptroller the reserves were as follows (per cent):

	Nov. 15, 1915	Nov. 17, 1916	March 5, 1917	May 1, 1917
In central reserve city banks	24.66	20.50	21.31	20.47
In reserve city banks . . .	27.39	24.88	24.48	22.84
In country banks	24.96	27.62	24.36	27.29

amount to be determined under rules prescribed by the board and sufficient to offset items in transit held for their account. Such holdings are to be solely for the purpose of exchange and collections. In proportion as a clearing and collection plan becomes so comprehensive as to provide for all checks does it become effective and useful; the par list has been steadily increasing both by voluntary action of the banks and by pressure from the federal reserve banks; as soon as the plan becomes universal so as to include all state as well as the national banks, and all forms of collection items, the necessity for maintaining accounts with correspondents for collection purposes, in addition to those with the federal reserve banks, will cease.

The second way in which "par collections" affect the reserves situation is that it reduces the "float." The old collections system was that a country bank when it dispatched a check by mail to its reserve city correspondent for collection received in most cases immediate credit. Commonly the checks were not sent by the correspondent directly to the drawee banks, some other route, often very roundabout, being selected to avoid collection charges. Hence, though the checks were not collected for days or weeks, the remitting bank received credit at once and this credit constituted a part of the reserve which it was required to keep either in its own vaults or those of its reserve city correspondents. The total sum of such checks in the mails at any one time varied between $300 and $500 millions. This was known as the "float."

This custom of considering both cash and uncollected checks, indiscriminately, as bank reserves was dangerous, misleading, unscientific; and to remedy it has been a most difficult task, since it affected most intimately the daily practices of every bank in the country. It really constituted a continuous impairment of reserves and a continuous overdraft on its account. It would have been positively foolish for the federal reserve banks to carry the burden of this "float." The 27,000 banks which have been carrying it have combined resources of about $27 billions; whereas the aggregate resources of the twelve federal reserve banks are about half a billion.[6] The float was substantially equal to their resources; that is, "their reserves would be constantly afloat in the mails instead of in their vaults and their value as reserve agents completely nullified."

In the adoption of the mandatory system in July, 1916, immed-

[6] Comptroller's report, 1916.

iate credit was given up and deferred credit substituted; now tentative credit only is given by federal reserve banks to their respective members, but the proceeds are not available for use either as reserves or otherwise until the funds are actually collected. Immediate credit is given only on checks against banks in the federal reserve city; checks on other federal reserve banks and on members of other federal reserve banks are credited only after one, two, four, and eight days, depending on the zones determined by average time it takes mail to reach the drawee bank. The checks are routed directly now, and this also cuts down the float. This abrogation of the practice of counting items in transit as reserve changes radically the quality of the reserves and thereby substantially increases them, *i.e.*, by the size of the reduction in the "float."[7]

Reserves against Notes

Under the federal reserve system there are three forms of notes issued. The old national bank notes are continued in circulation with the same securities and redemption fund as before 1914. The federal reserve banks are permitted, or under certain conditions compelled, to purchase a limited amount of the United States bonds securing the national bank notes and to substitute for these notes their own "federal reserve bank notes," as they are called. The total issue of these up to December 31, 1916, was $12 millions; $6 millions are now held by the federal reserve bank of Kansas City,[8] and $2 millions by the federal reserve bank of Dallas. The remaining $4 millions are in circulation or in the Treasury of the United States, but these banks have extinguished their liability on these $4 millions by the deposit of lawful money. So there is no addition to the circulation of the country through the issue of federal reserve bank notes.

The third form is the federal reserve note. This was introduced into our banking system to provide an elastic note issue, an issue which would increase and decrease with the local seasonal demands

[7] Statement of the statistics of the primary reserves held by the state, national, and federal reserve banks is omitted from this paper. The reader is referred to the press reports of the Comptroller after each call or his more extended subsequent reports and to the weekly or monthly summaries in the financial sections of our dailies or financial journals. The limits of space for this article prevent a statement and discussion of the migration of reserves and the volume of surplus reserves and their location.

[8] Some few of these notes were issued in June, 1917, by this bank, apparently in connection with the flotation of the Liberty Loan.

for money. Elasticity was to be gotten by basing the issue and security of these notes upon commercial paper. Paper meeting strict definition and discounted by a member bank could be rediscounted with the federal reserve bank, the member bank receiving federal reserve notes. The federal reserve bank, in turn, procured these from the Federal Reserve Board, by pledging these rediscounts as collateral with the federal reserve agent, and by providing in its own vaults a gold reserve of 35 per cent and a gold redemption fund of 5 per cent with the United States Treasury.

The Federal reserve agent cannot issue these notes to the Federal reserve bank except in response to the presentation of rediscounted bills as collateral. But the notes once in the hands of the bank can be issued to its members as proceeds of a rediscount of paper, or in exchange for gold, or gold certificates, or it may issue them to any person, corporation, bank or concern that has gold, coin or certificates, and wishes to exchange for federal reserve notes.

In this way the volume of notes would expand in proportion to business needs and when the commercial paper matured it would be taken up by the presentation notes or gold, thus reducing the volume of currency when business needs fell off.

But this process of issue and of the redemption of the paper has resulted in a most peculiar situation. The paper has been redeemed in part by the deposit of federal reserve notes and the trustee holding the collateral has been correspondingly cancelled. But a much bigger portion of the paper has been redeemed by deposit of gold coin and certificates, and the federal reserve notes have stayed out in circulation; meanwhile the agent's liability has continued and a large fund of gold has accumulated in his hands. By the weekly statement, of June 15, 1917, for instance, there were issued to the federal reserve banks $528 millions of these notes, of which $491 millions were in circulation; against these $528 millions the federal reserve agent held as collateral only $69 millions of rediscounted commercial paper and for the rest gold coin and certificates.

Several features of this situation are noteworthy. (1) The volume of federal reserve notes is relatively large and constant:[9] the notes stay out in circulation when issued; the volume of the notes *per se* does not expand and contract in conformity with business needs but the aggregate volume of currency does. (2)

[9] Below is given the volume of federal reserve notes issued to the federal reserve banks by the federal reserve agent as reported weekly the forepart of

The federal reserve notes are tending to supplant the gold certificates as common circulating medium; the gold certificates are drifting into the hands of the federal reserve agents and federal reserve notes circulate in their stead. Also, since the federal reserve notes cannot by law be used as reserves in the member banks (but gold certificates may), the gold certificates are also drifting into the reserves of the member and federal reserve banks, and their place in the currency is filled by federal reserve notes; on the other hand, since federal reserve notes may be used in state bank reserves, the state banks may be giving up gold certificates and substituting federal reserve notes. (3) The gold cover of these notes is very high, ranging as high as 90 per cent.[10]

This impounding of gold in the hands of the federal reserve agents has occasioned both approval and criticism. The process has resulted in a slight increase of the currency, *e.g.*, $69 millions on June 15. On the other hand, it has extracted from circulation $460 millions of gold which might have entered into bank reserves and become the basis of deposit expansion; but since the federal reserve notes are legal reserve in the banks and trust companies of some states and since they have to some extent, despite the laws, found their way into the reserves of national banks, they may fill about equally the place of the $460 millions of gold as a basis of credit. Impounding of gold has not reduced the lending power of

1917; there is also given the volume of commercial paper held by him against these; the rest is covered by gold and gold certificates on hand and by his credit balance in gold redemption fund held with the Treasury and by his balance with the Federal Reserve Board:

	(*Millions*)	(*Millions*)		(*Millions*)	(*Millions*)
January 5 . . .	$300.5	$18.9	April 5 . . .	$400.7	$22.3
" 12 . . .	300.3	18.9	" 13 . . .	431.	20.9
" 18-9 . .	293.4	18.9	" 20 . . .	440.	22.0
" 26 . . .	291.6	18.3	" 27 . . .	446.	23.6
February 2 . . .	290.6	16.5	May 4 . . .	458.8	25.8
" 9 . . .	308.3	19.6	" 11 . . .	470.4	32.1
" 16 . . .	321.5	24.1	" 18 . . .	478.9	30.6
" 23 . . .	331.5	25.3	" 25 . . .	488.1	31.5
March 2 . . .	343.	26.3			
" 9 . . .	355.	26.8			
" 16 . . .	363.	24.7			
" 23 . . .	372.	22.7			
" 30 . . .	382.	21.9			

[10] That is, the federal reserve notes are practically the same as gold certificates, and the net addition to the circulating media of the country is simply that small fraction represented by the commercial paper collateral; as shown, this was $69 millions on June 15, 1917.

the federal reserve banks; this power is held in reserve and under emergency rediscounting is resorted to freely.[11]

But the common defense of this accumulation of gold with the federal reserve agent is that when, following the war, the belligerents pull back from the United States their due share of the gold now piling up in our country, the holders of these federal reserve notes can withdraw from the federal reserve agents vast sums of gold without disturbing the credit structure, whereas, if it were in the reserves of local banks, the credit of these banks would have to be reduced many times the amount withdrawn. The force of this argument rests upon the assumption that federal reserve notes do not enter bank reserves, which assumption has been qualified above.

The National City Bank of New York has led a campaign of publicity seeking to persuade the money and credit world that it is desirable to have the federal reserve banks issue federal reserve notes directly for gold and to have the gold accumulate in the hands of the banks rather than of the federal reserve agents. It has been shown that, by a roundabout process of issue, the federal reserve notes come to be practically issued for gold and are like gold certificates. The gold, however, is in the hands of the agents rather than the banks and it cannot become the basis of issue of more notes than 100 per cent of its value; on the other hand, if it were in the hands of the banks, since they need only keep a 40 per cent gold reserve, this gold might become the reserve for two and one half times its value; this additional currency-issuing power, it is argued, would be most desirable in case of emergency and in case Europe drew back some of our gold hoards after the war. The federal reserve banks could give up vast sums of gold and, by rediscounts, fill the cavity by federal reserve notes using the residue of gold as a basis of issue. In other words, our ability to give up gold without precipitating a crisis would be materially increased if the gold of the United States could be concentrated in these central banks and the direct issue of federal reserve notes for gold would be an easy and effective way of bringing it about. At present the immense imports of gold flow either to the federal Treasury in exchange for gold certificates or to the member and state

[11] Actual instances of relief in such emergencies, though of minor size, are the tight money market in the first week of December, 1916, the series of bank failures in Seattle the first week of February, and the adjustments occasioned by the Liberty Loan subscriptions the second week of June, 1917.

bank vaults. That which goes to the Treasury is as ineffectively used as is that which goes to the federal reserve agent and for the same reason. That which goes to the banks' vaults becomes the basis of a credit structure which would topple if the gold were withdrawn. Hence it is best that the gold be concentrated in the federal reserve banks.

If federal reserve notes were issued by the federal reserve banks directly for gold, holders of gold instead of carrying it to the Treasury and getting gold certificates for it, would take it to the federal reserve banks and get federal reserve notes; and if the federal reserve notes were made legal for use as reserve money, it is likely that the member and state banks would deposit their gold with the federal reserve banks, and carry federal reserve notes as their reserve. This proposition goes further and would abolish the issue of gold certificates by the Treasury, leaving the whole field to the federal reserve banks and the federal reserve notes. The big central banks of Europe issue notes for gold directly; in fact, this is the sole function of the Issue Department of the Bank of England; and the strength of the note of the Bank of England is this gold cover.

This proposal has been a part of the general campaign to concentrate the gold of the country in the federal reserve banks. It would strengthen the potential lending and note-issue power of these central banks in case of need. The campaign for direct issue of notes for gold terminated successfully in the amendment of June 21, 1917. They may be now issued for gold or gold certificates. The gold and gold certificates held as collateral by the federal reserve agents for notes issued are now counted as part of the reserve which the federal reserve bank is required to maintain against its notes in actual circulation. *All* outstanding federal reserve notes are now shown as a liability of the federal reserve banks. There is the further provision that gold deposited with the Treasurer of the United States for the redemption of federal reserve notes is to be considered as if collateral security on deposit with the federal reserve agent.

In January the proposal to issue notes directly for gold was rejected by practically unanimous vote by the House committee, but Congress yielded in June under pressure of war contingencies. The opposition fought it on the ground that it was unnecessary; that, since it was bound up with the proposal to make federal reserve notes legal reserve for member banks, it was a form of pyra-

mided credit and fraught with danger of inflation; and that it was contrary to the principle of the federal reserve system which contemplated that every note issued was to be issued on the basis of a rediscounted commercial paper and was to be born with a business transaction and to cease with it, whereas the present proposal was to issue them as gold certificates and permanent currency. The first objection may be ignored; the second does not apply to the amendment as enacted nor is it consistent with acquiescence in accepting credit with the federal reserve bank as the only reserve of member banks; and the third objection ignores the real fact of issue of federal reserve notes for gold by a roundabout process.

RAY B. WESTERFIELD.

Yale University.