

"RESERVE REQUIREMENTS AND BANK CREDIT"

Address By

JOSEPH A. BRODERICK

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## RESERVE REQUIREMENTS AND BANK CREDIT

We have heard a great deal lately about reserve requirements. Much has been said about what amount of reserves is desirable; whether or not we ought to have excess reserves, and of what size. Considerable controversy has been had on the question of when and how the Federal Reserve System should act, first, in order to increase reserves, and later in order to diminish them.

I was connected with the Federal Reserve System at its beginning, and I am impressed by the change in the attitude toward reserves that has occurred under the stress of circumstances during the life of the System which extends now over twenty-two years. When the System was first organized we thought of bank reserves primarily as money that banks are required to hold idle in order to be able to meet the demands of their depositors in case of a run. It is for this reason that we permitted smaller reserves for banks in country districts, where the withdrawals are not as abrupt as in the cities, and permitted lower reserves on time deposits than on demand deposits on the theory that time deposits turn over much more slowly and are, therefore, less subject to fluctuations. In the course of the years since the establishment of the System we have learned, however, that reserves are not an adequate protection to depositors, because if depositors want their money, a 10 or 15 percent reserve can protect only the ones who get pretty far towards the beginning of the line. Those who have more confidence in the bank, are likely to find that the reserves have been exhausted before they reach the teller's window. We have learned, furthermore, that the safety of depositors depends

on the character of the bank's assets and in the ability to obtain temporary advances from the Federal Reserve banks. We have a system now by which bank deposits are safe so long as the assets of the bank are sound. Deposit insurance provides another source of safety, limited, of course, to deposits up to \$5,000. There is nothing, however, that can take the place of wise and competent management in the running of banks. If its assets are sound no bank needs to be embarrassed by a run, even though the assets may be in long-time paper, because under the new legislation advances from the Reserve banks can be obtained on any asset satisfactory to the Reserve bank authorities.

It has grown upon us in the light of experience that safety of depositors is not the only nor the principal purpose of reserves. Throughout the world banks hold a certain proportion of reserves. In most countries this amount is determined, not by law, but by custom and the mandates of banking prudence. In our country, however, with its thousands of individual banks, we prescribe by law the proportion of deposits that the banks must keep as reserves. Member banks count as reserves under the law only balances held with the Federal Reserve banks. However, the banks have found it necessary to hold in addition a certain amount of cash in vault to meet over-the-counter demands and a certain amount of balances with correspondents for secondary reserves and clearing purposes, so that the operating reserves of our banks are in fact considerably larger than their legal reserves and consist not only of balances with the Reserve banks, but also of cash in vault and amounts due from other banks.

We may ask, "What purpose other than the safety of depositors do the reserves serve?" Experience has demonstrated that a fundamental use of reserves is as an instrument through which undue bank expansion can be checked and undue contraction of credit mitigated. Bank reserves are the medium through which the policies of the Federal Reserve System to speed up or retard credit expansion are exercised. If it were not for this leverage the Federal Reserve System would be helpless in trying to discharge its responsibilities towards maintaining a more stable banking system and indirectly a more stable economy.

The System can influence the volume of reserves directly by open-market operations. When the System buys Government securities or acceptances, it pays for them by checks on itself which come to member banks and are deposited with the Reserve bank where they become member bank reserve balances. It can diminish reserves by selling Government securities or acceptances for which the banks pay by drawing upon their balances and thereby reducing their reserves. Open-market operations are, therefore, the most direct way of influencing the volume of member bank reserves. The effectiveness of the discount rate fits in with these operations. If the banks find themselves short of reserves and borrow, either because of reserves lost through the purchase of Government securities from the Reserve banks, or through other causes, then the Federal Reserve System can make the borrowing more or less expensive by changing the discount rate. Open-market operations, therefore, set the stage for discount rate policy and make that policy effective.

In order to understand the workings of reserves in the banking system, it may be useful to imagine for a moment that there is just one Federal Reserve bank and one member bank. The Federal Reserve bank has all the assets of the Reserve System and the member bank has all the assets of the commercial banking system. The member bank has a certain amount of deposits represented on the asset side by loans and investments. Against these deposits it is obliged to hold, let us say, an 8 percent reserve with the Federal Reserve bank. Assume that the bank is loaned up, that is, that it has as many deposits as its existing volume of reserves will support under the law. Assume then that another million dollars of reserves is deposited with the member bank, either because gold has been imported from abroad, or because the Federal Reserve bank has bought a million of Government securities. The member bank then has a million dollars more reserves than it requires, and it can proceed to lend about twelve millions to its customers, because when the transaction is over it will have twelve millions more of deposits, which is no more than its additional million of reserves can support. It may have loaned the money to Mr. A, and he may have written checks against the deposit to Messrs. B, C, and D, but since all of these gentlemen have their deposits with the bank, it being the only bank, the bank will not have had to pay out any money and the total amount of deposits it created would still be with it. That is what is meant by the statement that every dollar of reserves can expand twelve-fold and be the basis of \$12 of deposits. This is a simple point, but one that it is difficult for bankers completely to assimilate, because it is contrary to their every day experience. An

individual bank, one of 15,000 banks, which receives a million dollar deposit cannot immediately lend several times that amount to its customers, because when the customers check against the proceeds of the loan the checks may be deposited with other banks and the original bank will not be in a position to meet its adverse clearing balance. No, the bank can only lend as much money as it has. The point, however, is that if it got a million dollars of reserves and deposited them with the Reserve bank, then loaned a million dollars to a customer, and the customer checked out all the money, this money would be deposited at some other member bank and that bank would have an increase in its deposits and an equivalent increase in its reserves. It, in turn, could lend the money, reserving only as much as it would need against the new deposit. The money would then be deposited in a third bank, which would take another slice out as a reserve against its deposit and would lend the rest. The process would continue, provided there was a demand for the loans or an opportunity for investment, until the total amount of deposits created would be equal to twelve times the million dollars originally deposited. The net result would be that member bank reserves would increase by a million, their loans and investments by eleven millions, and their deposits by twelve millions. In other words, in practice the situation would work out in exactly the same way as was assumed under our illustration where there was only one member bank. After a process of passing around from one bank to another the result on the banking system would be the same as though there were only one bank in existence.

In thinking about bank credit from the point of view of the

national welfare, it is essential, therefore, to remember this distinction between reserves and other money. Reserve money is susceptible of a multiple expansion, whereas cash or deposits in the hands of the public cannot be the basis of expansion. What we have here is high-power money and low-power money, with the public handling the low-power money and the Federal Reserve banks handling the high-power money.

It may be worth while to ask: where do reserves come from, taking the banking system as a whole? The answer is, in broad terms and leaving out Treasury operations, that reserves are created either through the import of gold, through a reduction in the public demand for money in circulation, or through Federal Reserve operations. The notable thing about this is that gold movements and the public demand for currency are not directly influenced by Federal Reserve policy. Reserves created through these two channels must be accepted passively by the Federal Reserve System, which may then decide whether their effect should be allowed to operate or should be offset by Federal Reserve operations. The third source of reserves, and the one for which the Reserve System has direct responsibility, is its own operation. The Federal Reserve banks can create reserves for member banks either by lending them money or by buying securities or acceptances in the open market. If they lend them money they put the banks in debt, which tends to restrain credit expansion, because banks do not like to be in debt, and furthermore, the Reserve bank can make it expensive for them by raising the discount rate. It may also increase reserves, however, by buying securities which gives the member bank reserves without indebtedness and without cost.

These, very broadly, are the instruments through which the Reserve banks can influence the volume of credit. To these instruments there has recently been added the power to change member bank reserve requirements within certain limits fixed by law. This enables the Board of Governors, when it decides that member banks should have less idle reserves, to absorb a part of them by increasing the proportion of reserves that member banks must hold against their deposits. That is a drastic power when used to absorb reserves and one that is difficult for the Federal Reserve System to use for this purpose except when member bank reserves have undergone a tremendous expansion through large imports of gold from abroad as has been the case in the past few years. When the Board of Governors raised reserve requirements by 50 percent last summer and thereby absorbed \$1,500,000,000 of reserves, the volume of reserves available after the absorption was still about \$2,000,000,000 in excess of requirements, and since that time the volume has increased still further. The latest increase of requirements to the full limit authorized by law will reduce excess reserves to \$500,000,000.

What are reserve requirements now? Under the law they were 3 percent on time deposits, 7 percent on demand deposits in country banks, 10 percent on demand deposits in reserve city banks, and 13 percent on demand deposits in central reserve city banks, that is, New York City and Chicago. On the average, prior to the change last summer, member bank requirements for reserves were about 8 percent of total deposits, which enabled banks to expand credit by \$100 for every \$8 of reserves, or an approximate ratio of 12-to-1. After reserve requirements were raised by

50 percent, the ratio became 12 percent, or \$1 of reserves for every \$8 of credit. By the increase announced on January 31, the ratio of expansion was further reduced, so that after May 1 when the last part of the increase will go into effect, the ratio will be \$1 of reserves to every \$6 of member bank credit.

There had been for many years a gradual decline in this ratio until last summer. Prior to the Federal Reserve Act country banks were required to hold a 15 percent reserve of which 9 percent could be held in balances with correspondents. Reserve city banks were obliged to hold 25 percent of which one-half could be held in central reserve city banks, and central reserve city banks were obliged to hold 25 percent in cash. There was no distinction between time and demand deposits. When the Federal Reserve Act was passed it was felt that, because the reserves had been concentrated in twelve reservoirs, it was safe to make the required ratios of reserves lower and they were reduced, respectively, to 18, 15, 12, and 5. In order to aid in financing the Government when the United States entered the war in 1917 the ratios were reduced still further to 13, 10, 7, and 3, but at the same time the banks were no longer permitted to count as legal reserves such cash as they found it necessary to have in their vaults. It was because of that additional operating reserve, which no longer counted as legal reserve, that the ratios on demand deposits were reduced by five points and on time deposits by two points.

Two significant changes were made by the Reserve Act and its amendments in the reserve structure. One was that the reserves carried in cash did not count as reserves, and the other that the ratio for time deposits

was reduced to 3 percent. Both of these changes resulted in carrying our reserve ratio to a lower level than prevailed or was contemplated at the time the law was passed. Owing to the ease with which cash could be obtained from the Reserve banks, member banks found that they no longer needed to carry 5 percent of their demand deposits and 2 percent of their time deposits as cash in vault, but could reduce the amount considerably, and in addition many of the deposits which the banks carried began to be classified as time deposits requiring only a 3 percent reserve. As a consequence, the ratio that reserves actually held by the banks were to their time and demand deposits declined until it reached the low point of 3 percent.

The theory on which reserve requirements were reduced when the Federal Reserve Act was passed was the safety theory. From the point of view of safety an organized banking system with a central reserve could afford to operate on a much smaller proportion of reserves than could an unorganized system consisting of thousands of banks. From the point of view of credit control which has developed, and which as I have said before is the basis of our requirements today, the existence of the Federal Reserve System is no longer a good reason for a minimum of reserve requirements, because the very elasticity of credit and currency made possible by the System makes a wider expansion possible than was possible under the old banking mechanism. The gradual reduction in actual reserves carried by banks has been one of the unforeseen consequences of the operations of the Federal Reserve System. We have learned that now, and have

largely offset this development by raising reserve requirements by 100 percent, so that beginning on May 1 they will be 6 percent on time deposits and 14 percent, 20, and 26 percent on demand deposits, depending on the location of the bank. In addition, it may be noted, that viewing reserves in relation to our gold base, our stocks of monetary gold have increased more than eight-fold since the war.

At this moment the member banks have about \$6,800,000,000 of reserves, of which \$4,600,000,000 are required and \$2,200,000,000 are excess. The growth in reserves during the past few years has been tremendous. It has amounted to more than \$4,000,000,000. This growth was caused to the extent of about \$800,000,000 by open-market operations of the Federal Reserve banks during the early days of the depression but since the autumn of 1933, it has been due to gold imports and to a minor extent to silver purchases by the Treasury. It is interesting to note that since the autumn of 1933, when excess reserves were about \$800,000,000, the Federal Reserve System has not acted to increase reserves, but has seen them accumulate through the import of gold and through other sources.

Last summer reserves had reached an unprecedented volume and a portion of them was converted into required reserves by the Board's action. The reserves which were thus made inoperative were not reserves created through the operations of the banks themselves or through any domestic conditions, including Federal Reserve policy, but through the inflow of gold from abroad. This inflow created reserves, and the limited demand

for credit at home retarded its use for credit expansion. Reserve requirements were increased by 50 percent last July, but now we still have \$2,200,000,000 excess reserves which, on the basis of past experience and allowing for nonmember bank expansion as well as for member bank expansion, could pyramid into an additional \$32,000,000,000 of bank credit. Added to the existing \$57,000,000,000 this would bring the total to an unprecedented level of \$89,000,000,000 of bank credit. If this happened, it would mean an inflation of the most hazardous character because the creation of any such volume of money would not be accompanied by a corresponding creation of the real wealth of which money is only the symbol.

The Board has now taken the final step through increasing reserve requirements to reduce excess reserves on May 1 to about \$500,000,000 and the potential expansion to perhaps \$5,000,000,000 or \$6,000,000,000. The present volume of bank credit, notwithstanding a lower volume of business operations, is larger than it was at the pre-depression peak in 1928 and 1929. The purpose of the Board's action was not to counteract an existing inflation, but to prevent an injurious credit expansion, to use the language of the law. The Federal Reserve System is thus placed in a position where it will be closer to the market and can more easily prevent an injurious expansion if it should threaten to develop.

What are the effects on the banks themselves of an increase in reserve requirements? In so far as individual member banks are concerned, they find that they have less funds available for investment or loans. The very fact, however, that the funds were excess reserves, that is,

were idle, shows that the banks were not finding useful employment for these funds. What the banks as a whole lose, therefore, is not funds that they were using, but funds which under present circumstances were idle. Taking the banking system as a whole, such an action reduced the amount by which the volume of bank credit could be further expanded if the urge to expand began to take hold.

Another effect of raising requirements is that it limits the amount by which every dollar of reserves can be expanded. Prior to the action of last summer every dollar of reserves could support \$12 of member bank credit. After reserves were raised 50 percent that amount was reduced to \$8. By the final increase of 33 1/3 percent, the amount of possible expansion has been reduced to \$6 for \$1. This lower ratio in itself makes it easier for the Federal Reserve System to counteract an injurious expansion, because every dollar that is added to member bank reserves will add \$6 instead of \$8 or \$12 to the potential volume of member bank credit. An increase in reserve requirements, however, places no absolute limit on the extent to which banks can expand, because whenever the banks are short of reserves they can borrow from the Federal Reserve bank and, if the Federal Reserve System feels that expansion should be encouraged, the Reserve banks can give the banks additional reserves through open-market operations, which would relieve the banks of the necessity of borrowing.

What an increase in requirements accomplishes is to place the Federal Reserve System in a position where it can influence the behavior of member banks through the normal credit instruments of open-market operations

and discount rates. This is the usual and desirable position for the System to be in. While the banks have reserves far in excess of their needs the Reserve System is powerless to influence the rate of expansion or contraction of credit. The power to influence the volume of bank credit through reserves and through open-market operations and discount rates places upon the Federal Reserve System the grave responsibility of seeing that legitimate business is always accommodated at reasonable rates, and that the volume of accommodation in the aggregate is at a rate best adapted to a stable condition of business and credit. The Federal Reserve System recognizes the gravity of this responsibility. We also recognize that so many factors in our economic life are beyond our control that the goal of a full utilization of our national resources at all times without violent fluctuations cannot be achieved by monetary means alone. We can, however, contribute our share to this achievement, and it is to this purpose that our efforts are dedicated.