Gov. Eccles

CONFIDENTIAL R&S 388

BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
Division of Research and Statistics
October 3, 1941

PROGRAM FOR DEALING WITH BANK RESERVES

The following memorandum presents in summary form the results of informal discussions among staff members dealing with proposals for increasing reserve requirements. The various methods described in the memorandum are given for purposes of discussion and should not be considered as recommendations.

Objectives

The following objectives were considered to be basic to a satisfactory handling of the problem:

1. Restraint on the expansion of bank deposits.

2. Adoption of a method of restraint that would not cause banks to liquidate their holdings of United States Government securities.

3. Provision of adequate bank funds to finance defense loans and to serve as a reservoir for such bank purchases of Government securities as may become necessary.

4. Gradual bridging of the gap between the Federal Reserve System and the money market to a point where adjustments in the credit situation can be made through open-market operations.

Methods

It should be assumed that any additional authority over reserve requirements should make all commercial banks, or at least all insured commercial banks, whether they are members of the System or not, subject to the same reserve requirements.

Reduction in excess reserves for the purposes stated above can be achieved by different methods, three of which are outlined in the following paragraphs:

1. An increase in the Board's powers to raise reserve requirements on the existing ratio basis. This method would immediately absorb some additional excess reserves. It should be coupled with some provision by which banks that do not have enough reserves to meet the increase will be relieved of penalties on deficiencies and of other restrictions until such time as they will have been able to build up the reserves to the necessary level.

2. Authority for the Board to impose higher reserve requirements on additional deposits above the now existing level. The requirement could be 50 per

cent, 66 2/3 per cent, 100 per cent, or any other percentage that the authorities may determine. The ratio could also vary for the different groups of banks. For example, ratios of 60 per cent for New York City, 50 per cent for other reserve cities, and 40 per cent for country banks, or some modification of those figures, might be adopted. The higher ratios for additional deposits would remain in force only so long as there is danger of inflation. This plan would not immediately absorb any existing excess reserves, but would limit potential credit expansion to the extent of excess reserves multiplied by 2, 1 1/2, or 1 depending on what ratio is selected.

3. A combination of these two methods, by which higher requirements would be prescribed for additional deposits but there would be a proviso that no bank would be required to hold aggregate reserves in excess of a predetermined percentage of its deposits, including old deposits subject to the old ratio and new deposits subject to the new ratio.

Technical improvements

Modifications of the present method of computing reserves and of items to be included in reserves were considered with a view to establishing a system that is more rational and realistic and that would permit the adoption of more nearly uniform reserve requirements for the various classes of banks. The two modifications that were considered were:

1. To permit banks to count cash in vault as reserves.

   This would have the merit of reducing the existing disadvantage of banks that are not located close to Federal Reserve Banks or branches and therefore have to carry larger amounts of vault cash.

   Nonmember banks can now count vault cash as reserves under State laws.

2. To adopt a high reserve requirement on bankers' demand balances -- the ratio to be uniform for the country as a whole -- and to couple that with authority for banks to count as a part of their reserves a proportion of their demand balances with correspondents equivalent to the reserve requirement on such balances.

   Under this system, balances held with correspondents would be reserves to the same amount that the bank with which they are held is required to maintain reserves against them.

   This proposal would have the advantage of making compliance with reserve requirements more acceptable for nonmember banks which hold a substantial part of their reserves with their correspondents.

   It would eliminate the effect on the banking system's reserve position of movements of interbank balances.

   It would also diminish the inducement for country banks to withdraw their balances in order to meet increased requirements and would make city banks less vulnerable whenever withdrawals do occur.

If these technical changes are adopted, new ratios of required reserves would have to be worked out. In working out these new ratios the objective should be that these ratios when first applied should not materially change the existing volume of excess reserves or its distribution by classes of banks. This can be done and at the same time differences in the ratios required for the different classes of banks can be eliminated or reduced.

Results of various methods

Attached tables show estimates of the effects of the various proposals on the reserve position of different groups of banks. The first table shows the amount of excess reserves, the credit expansion ratio, and the amount of potential credit expansion for each of the various methods. The second table shows the distribution of excess reserves by classes of banks for each of the methods of computing reserve requirements, except those involving higher requirements on increases in deposits. The third and fourth tables show, by classes of banks, the process of computing required and excess reserves under various combinations of technical changes. The more important results shown by the tables may be summarized as follows:

1. An extension of the November 1 reserve requirements to include nonmember insured commercial banks, without any of the proposed technical changes, would reduce excess reserves from about $4 billion to about $3.5 billion. The multiple of demand deposit expansion, after the increase, would be about 4.7 to 1, giving a potential credit expansion of about $17 billion. (Table 1, item A-2)

   Changes in the distribution of deposits among the various classes of banks would depend largely upon shifts in interbank balances caused by bringing in nonmember banks; it is assumed that these would be proportional to the present distribution of such balances. (Table 2, item A-2 and footnote 1/)

2. If the proposed technical improvements are adopted, excess reserves would vary from $2.9 billion to $4.4 billion, depending upon the new ratios that would be established. The multiple of expansion of demand deposits other than interbank would be 4 to 1 in the first case and about 4.6 to 1 in the second, and potential credit expansion would vary from about $11 billion to $20 billion. (Table 1, items C-1 and C-2)

3. Under the proposed technical changes, the requirements shown in item C-2-a (40 per cent on interbank balances, 25 per cent on other demand deposits and 6 per cent on time deposits) would involve least change in total volume and in distribution of excess reserves. The total amount of excess reserves would be $3.1 billion and potential credit expansion $12.6 billion.

City banks would have somewhat smaller excess reserves, but their interbank deposits would be less liable to withdrawal; country banks would have somewhat larger excess reserves but would have a smaller amount of free balances with correspondents. (Table 2, item C-2-a; also Tables 3 and 4)

4. To further reduce potential credit expansion without technical changes, a uniform increase in reserve percentages of about 15 per cent above November 1 requirements applied to all insured banks would reduce excess reserves to $2.1 billion and potential credit expansion to $8.4 billion. (Tables 1 and 2, item B-1)

5. Starting from the same conditions, a reserve requirement of 50 per cent on increases in demand deposits would permit a credit expansion of $7 billion on the basis of $3.5 billion of excess reserves. (Table 1, item B-3)

   Practically the same results on the average would be obtained by having different requirements on additional deposits for each class of banks, provided that the higher requirements are such as to average 50 per cent, as is assumed in the example. (Table 1, item B-4)

   With a 100 per cent requirement on additional deposits potential credit expansion would be limited to $3.5 billion, the amount of excess reserves at the beginning. (Table 1, item B-2)

6. Starting with the set of proposed technical changes suggested in (3) above (requirements of 40 per cent on interbank balances, 25 per cent on other demand deposits and 6 per cent on time deposits) a uniform increase of 10 per cent in requirements on all deposits other than interbank would leave excess reserves of about $2.1 billion and potential credit expansion of about $7.7 billion. (Tables 1 and 2, item D-1)

7. Starting with this same set of proposed technical changes, a requirement of 50 per cent on all increases in demand deposits other than interbank deposits would permit a credit expansion of about $6.3 billion or twice the amount of excess reserves at the beginning. (Table 1, item D-3)

   Almost the same results on the average would be obtained by having different requirements on additional deposits for each class of banks, provided that the higher requirements are such as to average close to 50 per cent, as is assumed in the example. (Table 1, item D-4)

Basic assumptions

These computations are all based on figures as of June 30, 1941, and involve the following assumptions:

a. The distribution of total reserves among the different classes of banks remains unchanged, except for the transfer of some of them to nonmember banks.

b. All credit expansion results in an increase in demand deposits other than interbank; time deposits and interbank deposits remain unchanged.

c. The proportionate distribution of demand deposits among the different classes of banks continues to be as it was on June 30, 1941.

It should be noted that for the week ending September 19, the total volume of excess reserves was slightly larger than on June 30. Total reserves had increased by $300 million and required reserves by $200 million in the period. Excess reserves at New York City banks were about $300 million less than on the earlier date, while those at each of the other groups had increased by $100 million or more. These changes are important with reference to the various computations for the New York City banks, but make little difference with regard to the other figures.

Table 1

POTENTIAL EXPANSION UNDER VARIOUS RESERVE PROPOSALS

(Dollars in millions; based on June 30, 1941 figures)

Types of proposals	Excess reserves	Credit expansion 1/ Multiple of expansion	Potential expansion
A. Under November 1 requirements			
1. Applied to member banks alone............	$3,950	5	$19,750
2. Applied to all insured banks	3,520	4.7	16,540
B. From A-2 above, with additional action as follows:			
1. Uniform 15% increase in requirements on all deposits	2,100	4	8,400
2. 100% on additional demand deposits at all classes of banks	3,520	1	2/ 3,520
3. 50% on additional demand deposits at all classes of banks	3,520	2	2/ 7,040
4. Raise fractional requirements on additional demand deposits, different for each class of bank 3/	3,520	2	7,040
C. Under technical changes 4/ proposed for all insured banks:			
1. On interbank 50%, on other demand deposits			
a. Uniform 25%	2,920	4	11,680
b. 25% in New York, 20% elsewhere......	4,177	4.6	18,910
2. On interbank 40%, on other demand deposits			
a. Uniform 25%	3,140	4	12,560
b. 25% in New York, 20% elsewhere	4,400	4.6	20,240
D. From C-2-a above, with additional action as follows:			
1. Uniform 10% increase in requirements on all deposits other than interbank	2,130	3.6	7,670
2. 100% on additional deposits at all classes of banks	3,140	1	2/ 3,140
3. 50% on additional deposits at all classes of banks	3,140	2	2/ 6,280
4. Raise fractional requirements for additional demand deposits, different for each class of bank 5/	3,140	1.9	5,970

1/ In computing the multiple of credit expansion it is assumed that only demand deposits increase and that the increase is distributed among classes of banks in the same proportion as present demand deposits. In computing potential expansion it is assumed that total bank reserves do not show any net change because of gold or currency movements, Treasury operations, etc.

2/ In addition predetermined higher ratios could be established for each class of bank and, once a bank's total required reserves reached these higher ratios, it would thereafter be subject to only that ratio. Assuming, for illustrative purposes that these ratios would be 40% for New York City, 30% for other cities, and 20% for country banks, total potential expansion would not be much different from the amounts shown because this expansion would be reached about the same time that the reserves of banks were generally at about the predetermined ratios. These ratios would give a multiple of credit expansion of about $3 of credit for $1 of deposits on the basis of new reserves created by gold imports, currency inflow, etc.

3/ The higher requirements assumed for illustrative purposes are 60% for demand deposits in New York City, 50% for Chicago and other Reserve cities, and 40% for country banks.

4/ For full description of technical changes see note (3) in Table 2.

5/ The predetermined limits assumed for illustrative purposes are 60% for New York and 50% elsewhere.

Table 2

EXCESS RESERVES UNDER VARIOUS SETS OF RESERVE REQUIREMENTS
By classes of banks
(In millions of dollars; based on June 30, 1941 figures)

	All insured banks	Member banks: All member banks	Member banks: New York City	Member banks: Chicago	Member banks: Reserve city	Member banks: Country	Insured nonmember commercial
A. Under November 1 requirements							
Applied to -							
1. Member banks only	-	3,947	1,626	236	1,407	678	-
2. All insured banks 1/	3,519	3,479	1,478	162	1,247	592	2/ 40
B. From A-2 above, with additional action as follows:							
1. Uniform 15% increase in requirements on all deposits	2,103	2,147	851	42	845	409	3/ 44
C. With proposed technical changes 4/							
1. On interbank 50%, on other demand deposits							
a. Uniform 25%	2,919	2,832	813	118	861	1,040	87
b. 25% in New York, 20% elsewhere	4,177	3,914	813	233	1,402	1,466	263
2. On interbank 40%, on other demand deposits							
a. Uniform 25%	3,143	3,243	1,257	194	992	800	3/100
b. 25% in New York, 20% elsewhere	4,401	4,325	1,257	309	1,533	1,226	76
D. From C-2(a) above, with additional action as follows:							
1. Uniform 10% increase in requirements on all deposits other than interbank	2,128	2,336	961	133	693	549	3/208

1/ Assuming that nonmember banks transfer $600 million to Reserve banks from member correspondents -- $200 million from New York City, $100 million from Chicago, $200 million from other reserve cities, and $100 million from country banks. No allowance is made for transfer of some of nonmember banks' vault cash holdings to the Reserve banks; this would increase total excess reserves and might amount to as much as $100 million.

2/ In addition nonmember banks would have about $1,357 million of balances with correspondents.

3/ Deficiency. Could be met by transfers of funds from correspondent banks to Federal Reserve banks.

4/ The proposal is (1) count vault cash as lawful reserves, (2) require a reserve of either 50 or 40 per cent against interbank demand deposits and permit banks to count, as part of their legal reserves, the same percentage of their demand balances due from domestic banks, (3) require either a uniform percentage of 25 per cent on "other" demand deposits, or 25 per cent at New York banks and 20 per cent elsewhere, (4) 6 per cent requirement on time deposits. Only cash items would be deductible from gross demand deposits before computing reserve requirements; balances due from banks would no longer be deductible.

Table 3
ESTIMATED REQUIRED AND EXCESS RESERVES AFTER PROPOSED TECHNICAL CHANGES 1/
ON BASIS OF 50 PER CENT FOR BANKERS' BALANCES
(Based on figures for June 30, 1941, in millions of dollars)

	All insured banks 2/	All member banks	Central reserve city banks: New York	Central reserve city banks: Chicago	Reserve city banks	Country banks	Insured nonmember banks 2/
1. Interbank demand deposits	10,381	10,291	4,566	1,018	4,053	654	90
2. Other demand deposits (less cash items)	36,830	33,296	11,652	2,300	10,820	8,524	3,534
3. Time deposits	15,916	12,496	811	502	4,929	6,254	3,420
4. Demand balances due from banks	8,145	6,188	130	258	2,759	3,041	1,957
Proposed "lawful" reserve --							
a. Reserve with Federal Reserve bank	12,959	12,959	5,857	1,062	4,125	1,915	--
b. Cash in vault	1,241	999	136	41	385	437	242
c. One-half of due from banks	4,073	3,094	65	129	1,379	1,521	979
Total	18,273	17,052	6,058	1,232	5,889	3,873	1,221
6. Proposed required reserves --							
a. 6% on time deposits	955	750	49	30	296	375	205
b. 50% on interbank demand deposits	5,191	5,146	2,283	509	2,027	327	45
c. 25% on other demand deposits	9,208	8,324	2,913	575	2,705	2,131	884
Total	15,354	14,220	5,245	1,114	5,028	2,833	1,134
7. Excess reserves --							
a. On basis of above requirements	2,919	2,832	813	118	861	1,040	4/ 87
b. With 20% requirement on "other" demand outside New York City	4,177	3,914	813	233	1,402	1,466	4/ 263
c. If November 1 requirements are extended to all insured banks 3/	3,519	3,479	1,478	162	1,247	592	40

1/ Proposed changes are: Reserve requirements: on interbank demand deposits 40% or 50%; on demand deposits other than interbank (a) uniform 25% or (b) 25% in New York City and 20% elsewhere; on time deposits 6%. Reserves to include (in addition to present reserves) cash in vault and 40% or 50% of demand balances due from domestic banks.

2/ Except nonmember mutual savings banks.

3/ For the purpose of this estimate it was assumed that nonmember banks would transfer $600,000,000 from correspondent banks to Federal Reserve banks, and that that would directly or indirectly result in the following decreases in member bank reserve balances and net demand deposits: New York $200,000,000, Chicago $100,000,000, Reserve city banks $200,000,000, and country banks $100,000,000. In calculating the reserve requirements of nonmember banks, a reserve percentage of 16% was used, on the assumption that about one-third of the deposits of the nonmember banks are in Reserve cities.

/ If no balances were transferred from correspondents to Federal Reserve banks. In addition to excess reserves, these banks would hold $979,000,000 of demand balances with other banks not eligible as reserve.

Table 4

ESTIMATED REQUIRED AND EXCESS RESERVES AFTER PROPOSED TECHNICAL CHANGES 1/

ON BASIS OF 40 PER CENT FOR BANKERS BALANCES

(Based on figures for June 30, 1941, in millions of dollars)

	All insured banks 2/	All member banks	Central reserve city banks		Reserve city banks	Country banks	Insured nonmember banks 2/
			New York	Chicago			
1. Interbank demand deposits	10,381	10,291	4,566	1,018	4,053	654	90
2. Other demand deposits (less cash items)	36,830	33,296	11,652	2,300	10,820	8,524	3,534
3. Time deposits	15,916	12,496	811	502	4,929	6,254	3,420
. Demand balances due from banks	8,145	6,188	130	258	2,759	3,041	1,957
5. Proposed "lawful" reserve --							
a. Reserve with Federal Reserve bank	12,959	12,959	5,857	1,062	4,125	1,915	--
b. Cash in vault	1,241	999	136	41	385	437	242
c. 40% of due from banks	3,258	2,475	52	103	1,104	1,216	783
Total	17,458	16,433	6,045	1,206	5,614	3,568	1,025
6. Proposed required reserves --							
a. 6% on time deposits	955	750	49	30	296	375	205
b. 40% on interbank demand deposits	4,152	4,116	1,826	407	1,621	262	36
c. 25% on other demand deposits	9,208	8,324	2,913	575	2,705	2,131	884
Total	14,315	13,190	4,788	1,012	4,622	2,768	1,125
7. Excess reserves --							
a. On basis of above requirements	3,143	3,243	1,257	194	992	800	4/ -100
b. With 20% requirement on "other" demand outside New York City	4,401	4,325	1,257	309	1,533	1,226	4/ 76
c. If November 1 requirements are extended to all insured banks 3/	3,519	3,479	1,478	162	1,247	592	40

1/ See Note 1/ of Table 3.

2/ Except nonmember mutual savings banks.

3/ For the purpose of this estimate it was assumed that nonmember banks would transfer $600,000,000 from correspondent banks to Federal Reserve banks, and that that would directly or indirectly result in the following decreases in member bank reserve balances and net demand deposits: New York $200,000,000, Chicago $100,000,000, Reserve city banks $200,000,000, and country banks $100,000,000. In calculating the reserve requirements of nonmember banks, a reserve percentage of 16 per cent was used, on the assumption that about one-third of the deposits of the nonmember banks are in reserve cities.

4/ If no balances were transferred from correspondents to Federal Reserve banks. These banks would hold $1,174,000,000 of demand balances with other banks not eligible as reserve until transferred to the Federal Reserve bank.