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The Federal Reserve System

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THE FEDERAL RESERVE SYSTEM

The Federal Reserve System, a little over fifty years old, is now the dominant force in the monetary policy of our nation's economy. Through its use of the reserve requirements, discount rate and other methods, the Federal Reserve System can greatly control the mood and pace of the economy. The 'Fed', as the system is called, has over 6,750 member banks, and has over eighty-five percent of the nation's demand deposits in its vaults. However, despite this great size and the fact that almost every time a person writes a check, he is using the Federal Reserve System, the 'Fed' is a little understood organization. It will be the purpose of this paper to show how the Federal Reserve System came into being, what the structure is and how it uses its powers to control the volume of money in circulation, and thus control the movement of the economy.

Reasons for the organization of the Federal Reserve

The Federal Reserve System was born out of the needs of the United States for a good central banking system. The nation had shown its needs for a central bank in many ways since the beginning of colonial times. The ultimate result was the Federal Reserve Act on December 23,1913.

To determine the reasons for the passage of this act, it would be good to give a brief history of early banking in this country. "During the colonial period there were no banks at all in the modern sense. A few 'public banks' were established as early as the seventeenth century, and a number of 'private banks were formed during the eighteenth. But both the public and the private institutions were entirely unlike banks as we know them today. They did not receive deposits of the public nor did they regularly make loans. They did not even have any capital. A bank in colonial times was simply an issue of paper money. The function of a bank, public or private, was supposed to be to furnish notes to the community. Once the bank was organized, whether by issuing bills against expected tax receipts, or as loans, such lending as might be done thereafter was handled by private individuals, entirely apart from the bank."[1]

It was 1784 that banking took on a new look. At the urging of Alexander Hamilton, the Congress chartered a national bank. By this measure, a bank would be created which through its branches could serve the entire nation. "The Bank of the United States was highly sucessful. It held most of the deposits of the Treasury and at its own expense transferred funds from one part on the country to another. Also the Bank aided the Government with loans, collected revenues promptly, and maintained a sound note issue. Furthermore, by refusing to receive the notes of nonspecie- paying banks, it discouraged the state banks from overissue. This enforcement of conservative banking practice provided the public with sound currenct but also aroused the enmity of the state banks which found there powers of credit creation, and hence their profits, considerably checked by the necessity of redeeming their notes. In addition these banks were bitterly opposed to the Bank of the United

[1] Eugene S. Klise, Money and Banking, Southwestern Publishing Co., Cincinnatti, Ohio (1955), p. 147.

States on account of its great size and power, which they felt gave it unfair advantage over the state banks."[2]

The failure of the Second Bank of the United States caused this nation to become committed to a system of unit banking. However, on June 3, 1864, the National Bank Act was passed. While this was a better system than the unit banking, it had many defects. Some of the defects were:

"1. The national note issue was inelastic....

2. The national banking system scarcely merited the name 'system', for there was no co-ordinated structure, no organization with differentiated parts and functions fitted together in an effective whole......

3. There was no provision of control of credit, nothing to prevent expansion of bank credit from generating a runaway boom in prices of commodities, real estate, and securities, and in the accompanying wild activity in agriculture, industry and commerce."[3]

These and other weaknesses caused many people to become dissatisfied with the National Banking System. The fact the Bank was unable to handle the panics in 1884, 1890, and 1893 added fuel to the movement for bank reform. This movement was further accelerated by the panic of 1907, and on December 23, 1913, the Federal REserve Act was passed.

The Federal Reserve Act

The Federal Reserve Act was the culmination of a long political fight. It had its beginnings "in the huge Report of the National Monetary Commission submitted to Congress in 1912. Included was a summary of the defects of the existing banking system and a plan

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[2] Ibid., p. 149.

[3] Ray Westerfield, Money, Credit, and Banking, The Ronald Press Co., New York (1938), p. 369.

for a new system designed to correct the enumerated defects of the old. The substance of this plan was embodied in a bill which was introdueed into the Senate by Senator Aldrich, Chairman of the National Monetary Commission. Partly because the political upset of 1912 deprived the party of Senator Aldrich of power, and partly because the National Monetary plan became unpopular in consequence of its big bamker support, the Aldrich Bill, providing for the establishment of a central banking system.......failed to become a law. But the project of banking was not dropped, and under the Democratic administration which came into full power in March, 1913, a new bill, the Federal Reserve Act, providing for a central banking system, was sucessfully piloted through Congress by Represenative Carter Glass, with the powerful support of President Wilson." [4]

The system devised under the Federal Reserve Act was to be expected to parallel to a large extent the virtues of the leading European banking systems in connection with our own nation's needs. However, the Democratic party, becouse of their stance as the people's party, mightybe expecteed to devise a system which would place more control in the people's hands.

So, it was expected that the new banking system would be devised to place a considerable degree of restraint on the big banking interests while not excluding them from power altogether. Also, while placing enough power in the hands of public officials to control the bankers, it would not place enough power in Washington to do violence to the Democrat's plank of States Rights. In short, it would be a central banking system, in which neither the bankers nor the government would have absolute power, but rather would be

[4]Louis Rufener, Money and Banking in the United States, Haughton Milfin Co., Dallas, Texas (1937), p. 478.

balanced against one another, with some influence accorded to the provinces of the West and South.

"The powers (of the Federal Reserve System as provided for in the act) can be divided into three main categories; those whose main role is to enable the Board to control the quantity of money- we may call these the instruments of monetary policy; those whose main role is to enable the Board to control the price and use of credit- we may call these the instruments of credit policy; and those whose main role is to enable the Board to supervise the operations of banks- we may call these the instruments of bank supervision." [5]

Of course, these headings just loosely describe the powers collected under them; for the powers of the Federal Reserve are many and varied. An example of a few is it conducts open market operations and rediscounting as its main monetary powers. While eligibility requirements were the main credit powers, powers added included control of security credit. Bank examination and reserve requirements were initial bank supervision powers, while added later on were powers to control interestrrates on time deposits, and policing of the prohibition of payment of interest on demand deposits. The above paragraphs give only a brief look at the powers of the Federal Reserve System. These powers and the System's structure will be discussed in detail later.

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[5] Milton Friedman, A Monetary History of the United States, 1867-1960, Princeton University Press, Princeton, N. J. (1963), p. 449.

Growth of the Federal Reserve System

Since its conception, the Federal Reserve has changed and been amended in many ways. It has also grown greatly, as the following chart will show.

Comparative Position of Member Banks,
Selected years, 1914-54
(Dollar amounts in millions)

Year	Deposits of all commercial banks	Deposits of member banks	Percentage member banks are of total
1914	$14,650	$6,374	43.5
1917	21,930	10,301	47.0
1920	32,534	21,915	67.4
1923	35,708	24,996	70.0
1926	42,392	30,474	71.9
1929	46,373	33,865	73.0
1932	31,621	24,803	78.4
1935	39,001	32,159	82.5
1938	43,689	36,211	82.9
1941	60,259	51,192	84.9
1943	94,911	81,707	86.0
1945	136,161	116,030	85.2
1947	131,071	110,125	84.0
1949	132,465	111,788	84.4
1951	149,754	126,590	84.5
1953	160,747	134,994	84.0
1954	167,948	141,269	84.1 [6]

As can be seen from the above table, the share of deposits that the members of the Federal Reserve have of the total have increased steadily. From forty-three percent in 1914, the Federal Reserve System banks percentage handling of deposits rose to eighty-four percent in 1954.

During the period from 1914 to the present time, the Federal Reserve System has undergone many changes. Among those was an amendment in 1917, which lowered the reserve requirements for banks in the system. The following table shows the difference between the requirements before and after the amendments.

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[6] Raymond Kent, Money and Banking, Rinehart and Company, Inc., New York (1956), p. 384.

Total Reserve
Requirement

Federal Reserve Act		Amendment of June 21, 1917
18	Central Reserve Cities	13
15	Reserve Cities	10
12	Other Cities	7

[7]

Demand deposits are classified as those deposits payable within thirty days.

Another change occurred in 1934, when during the process of the Devaluation Act of 1934, the gold reserves of the Federal Reserve System ($3,566,290,000) were transferred to the Treasury.

The powers of the Federal Reserve System were also broadened in the Banking Act of 1935. Among these provisions are:

"1. Enlargement of the Board's power to alter reserve requirements. This provision rermitted the Board to adjust reserve requirements between the minimum percentages specified in the act of June, 1917,* and twice those percentages. A further change in reserve requir ments prescribed reserves against government deposits.

2. Broadening of the lending powers of the Banks. The section of the Glass-Steagall Act which had allower emergency advances was liberalized and made permanent. It authorized a REserve Bank to make advances to its member banks on any satisfactory security whenever desired, subject only to the rules of the Board. The theory of eligibility as the basis for Federal Reserve credit was thus laid to rest.

3. Empowering th Board to set a maximum limit to interest rates

[7] Roy Garis, Principles of Money, Credit and Banking, MacMillan co., New York (1935), p.793.

*See page six.

paid by member banks on time deposits. Granted by the Banking Act on 1933, that power was reaffirmed by the Banking Act of 1935, which gave the same power to the Federal Deposit Insurance Corporation with regard to insured non-member banks.

4. Granting of power to the Board to regulate credit advances by bankers and brokers to their customers for purchasing and carrying registered securities. With this power, granted by the Securities Exchange Act of 1934, the Board has since set margin requirements of loans granted by member and non-member banks on stocks and by members of national security exchanges on stock and bonds."[8]

With these and other changes in its powers, the Federal Reserve became the almost all powerful setter of the nation's monetary policy that it is today.

<u>How a central banking system operates</u>

The Federal System operates the way central banking system operates. It follows the principles wmd that are laid down in general for these systems. Raymond Kent defines a central bank as "an institution which is charged with the responsibility of managing the expansion and contraction of the volume of money in the interests of the general public welfare."[9] Thus, the Federal Reserve Banks of the United States have special powers granted to them which set them apart from the commercial banks of the banking system.

Most central banks have the following characteristics:

1. They are not primarily profit making institutions. Since the operations of a central bank are designed to profoundly

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8 Milton Friedman, <u>A Monetary History of the United States, 1867-1960</u>, Princeton University Press, Princeton N.N., (1963), p. 447-8.

9 Raymond Kent, <u>Money and Banking</u>, Rinehart and Company, Inc., New York (1956), p. 365.

effect the money supply for the general welfare of the public, then it cannot be primarily profit making.

2. They are under close control of the national government. This too, is necessary; for the monetary policies of the central bank must be co-ordinated with the fiscal policy of the government.

3. They do most of their transaction with other banks, and not the public. The central bank makes available many services to the commercial banks that the commercial banks make available to the public.

To fulfill its purposes, which are to 'control the volume of money', the central bank must have special powers which can be classified under three main heads. These heads are:

1. The central banks have almost monopolistic powers over note issues. It is through exercise of this power that the central bank can control the volume of hand-to-hand circulating money.

2. The central banks have control of bank reserves. This is an indirect way which central banks can control the amount of money in circulation, for the power of commercial banks to create money in the demand deposits is dependent upon their reserves. So, if the central bank can control the size of the reserves, they can control the amount of demand deposits.

3. The central bank is the principal financial adviser of the government. Actually, what this power does is to co-ordinate the actions of the central bank and the government's fiscal policy. This action is necessary because if these two groups are not co-ordinated, then one can off-set the attempts and actions of the other by contradictory action.

The structure of the Federal Reserve

In the United States, the central bank is the Federal Reserve System. As has been previously stated, it came about in the Federal Reserve Act of 1913. "The functions of the Federal Reserve System are shared by five agencies. They are:

1. The Board of Governors
2. The Federal Open Market Committee
3. The Federal Advisory Council
4. The Federal Reserve Banks and their branches
5. Member banks of the Federal Reserve System." [10]

At the apex of power structure of the Federal Reserve System is the Board of Governors. They are seven in number and are appointed by the President of the United States at an annual salary of $16,000. The length of term is fourteen years with the terms so arranged that one ends every two years. This assures that there is always a high percentage of experienced men on the Board. The President is required by law to give consideration to make his appointments fall on men from varied professions and different parts of the country.

The Board of Governors is all powerful in the Federal Reserve System. Very little of importance can occur without the approval of the Board. Many of the actions that the Federal Reserve System take are initiated by the Board of Governors. "It is the function of the Board of Governors to manage the banking system in such a way as to encourage sound banking and sound conditions of credit. To aid them in carrying out this objective, they have the power to raise or lower member bank reserve requirements, or to suspend them. The rediscount rates set by the Banks, determining the cost to the member banks of borrowing from Reserve Banks, must be approved by

[10] Ibid.

the Board." [11]

The Federal Open Market Committee is one of the more important agencies in the Federal Reserve System, for it is now recognized the purchases and sales of securities on the open market is one of the means at the disposal of the reserve authorities for control of the volume of money. The Federal Open Market Committee is made up of twelve men. Seven of them are the Board of Governors, and the other five are selected by the twelve reserve banks. The committee makes all purchases or sales of securities through the Reserve Bank in New York, with each of the twelve banks being responsible for a part of each transaction in proportion to its assets.

The main operating units of the Federal Reserve System are the twelve Reserve Banks and their branches. There is one Reserve Bank in an important city in each of the twelve reserve districts. In addition there are twenty-four branch banks scattered throughout the nation to aid the parent banks in their functions.

Each of the twelve banks is controlled by a board of nine directors. These directors are required to be chosen in such a way as to include reprensation from a variety of groups Directors are of three classes. Class A directors are chosen from bankers. Class Baare chosen from men in non-banking occupations. Class C are chosen from the general public, and are chosen by the Federal Reserve Board of Governors. Class A and B directors are chosen by the member banks in the district.

The Federal Reserve Act required that each reserve bank, at

[11] Eugene KLuse, Money and Banking, Soutwestern Publishing Co., Cincinnatti, Ohio (1955), p. 174-5.

the time of its organization to have a minimum of $4 million in subscribed capital. This capital was to be subscribed by the member banks. The Federal Treasury was authorized to make up any difference, but this was not necessary as the commercial banks provided sufficient capital. As a matter of fact, the assets today are many times the required level as the following table shows.

Total Assets of Federal Reserve Banks
December 31, 1954
(In millions of dollars)

Boston	$2,813	Chicago	$8,848
New York	12,888	St. Louis	2,077
Philadelphia	3,091	Minneapolis	1,184
Cleveland	4,385	Kansas City	2,199
Richmond	3,097	Dallas	2,060
Atlanta	2,630	San Francisco	$5,600 [12]

The completing group of the System is the thousands of member banks. All banks granted national charters are required to be members of the Federal Reserve. Member banks buy stock in the Federal Reserve. They agree to go by rules of the Federal Reserve, to be examined by officials, and to meet the reserve requirements of the Federal Reserve. These reserves are held by members of the Federal Reserve entirely in the form of deposits with a Federal Reserve bank. In return for their membership, these banks get the services of the Federal Reserve.

While, as was said, all national banks are required to be members of the Federal Reserve System, many state banks choose to join. "Incorporated state banks, including commercial banks, mutual savings banks, trust companies, and industrial banks, may voluntarily join the Federal Reserve System if they are able to

[12] Ibid, p. 172.

satisfy the requirements of membership..... The principal qualifications for membership are as follows:

1. the passing of an entrance exam
2. sufficient capital
3. subscription to stock in the Federal Reserve Bank in the district
4. observance of reserve requirements
5. observance of most of the Federal banking laws which govern the operations of national banks."[13]

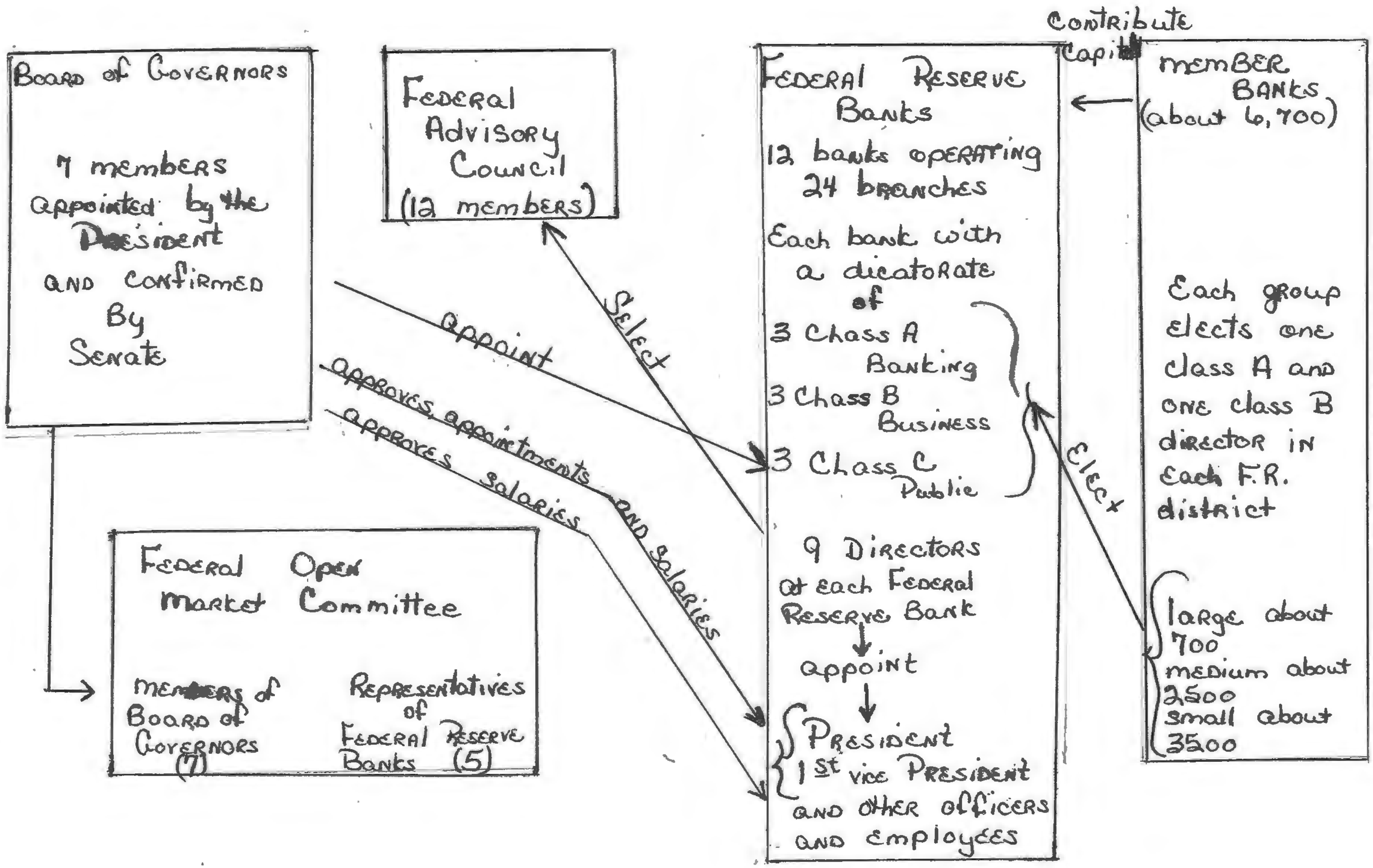
It is the Board of Governors which ultimately decide whether or not the application of a state bank is to be accepted. They take many things into consideration in their decision. Among these are:

1. financial history of the applicant
2. qualifications of directors and officers
3. it must have sufficient capital
4. willingness to abide the rules of the System.

After admission, the member banks must submit to the rules of the Federal Reserve System. Failure to do so is grounds for expulsion from the system. This concludes the structure of the Federal Reserve System. The next part will deal with the use of the Federal Reserve System's powers and its effects.

[13] Raymond Kent, Money and Banking, Rinehart and Co. Inc., McGraw- New York (1956), p.392.

Oranization of federal Reserve System



14 Federal Reserve System, Board of Governors of Federal Reserve System. Washington, D.C. (1954) p. 82

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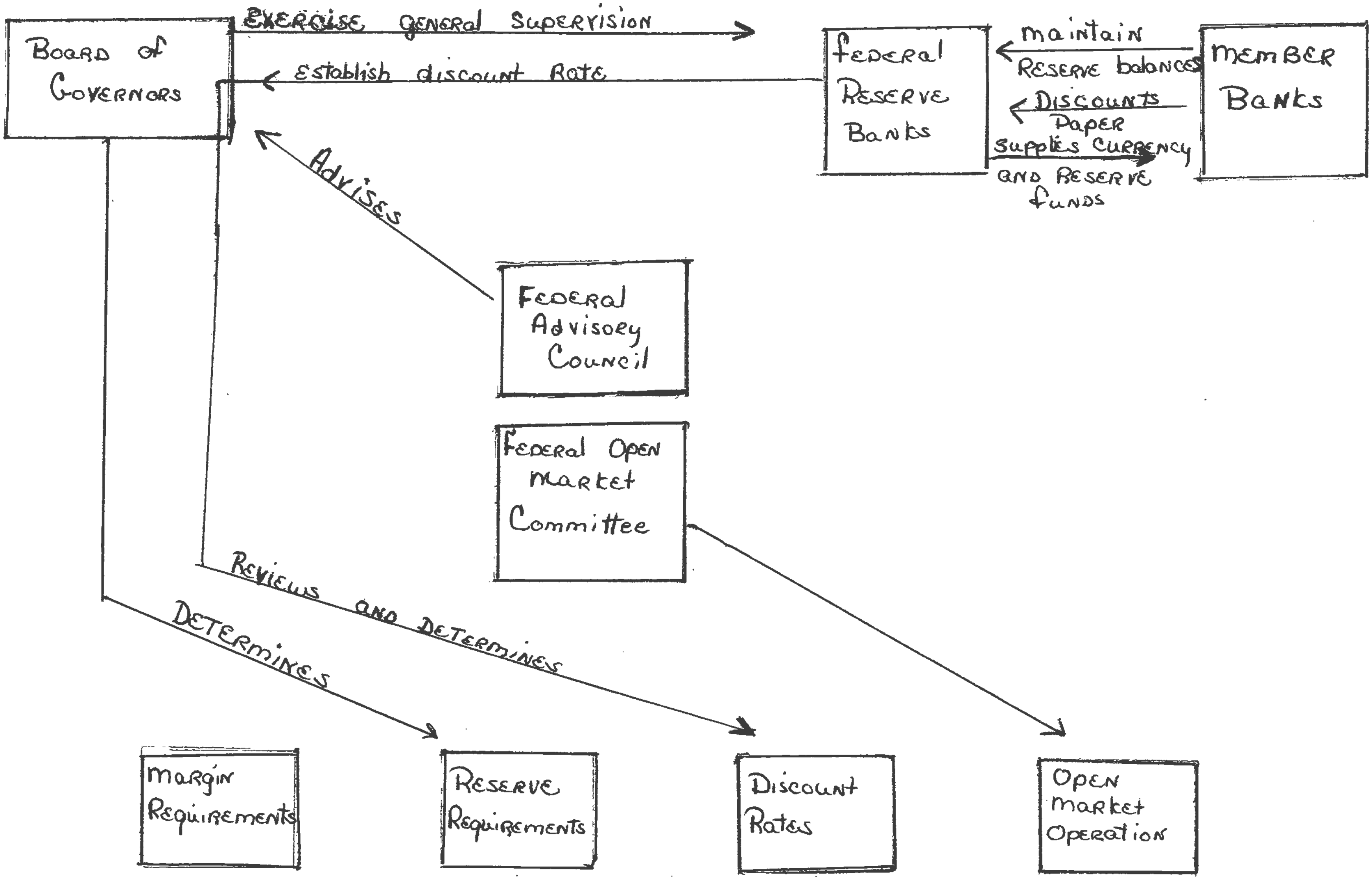
Relation of parts to instruments of credit policy



15 Ibid. p. 83

Operations of the Federal Reserve System

The Federal Reserve's purpose is to regulate the monetary supply of the United States in such a way as to insure the best possible rate for the economy. The Federal Reserve has at its disposal many powers to enable it to achieve this goal. Some of these powers are:

1. Revision of reserve requirements
2. Control of member bank borrowing, the discount rate. "Federal Reserve loans to members take two main forms. One is the discounting (or rediscounting) of notes that the bank has received from its customers. The second is lending on a bank's own note supported by collateral." [16]
3. Open Market Operations
4. Margin requirements.

Taking and examining each of these, revision of reserve requirements is the power that the Federal Reserve has to change the amount of a member bank's balance it must keep in 'reserve'.

"Commercial banks, like other business organizations, but unlike the Federal Reserve Banks, are in business for the purpose of making a profit. The bulk of a commercial banks' earnings comes from returns it receives from loans to customers and holding of securities. Consequently, it is usually a bank's policy to put into loans and investment as much as possible of the money it receives as capital and deposits. Banks in practically all states, however, are required by law to hold

[16] Lowell Harriss, Money and Banking, Allyn and Bacon, Inc., New York (1961), p. 177.

in reserve an amount of uninvested funds equal to a designated portion of their deposits.

"Historically, reserve requirements were imposed by law for the purpose of protecting investors - to assure that banks maintained a cash fund adequate to meet their depositor's withdrawls."[17] Since the estblishment of the Federal Reserve System, this power has been used as one of the controls on the amount of money in the economy.

The reserve requirements control works in the following manner. Any bank which is a member of the Federal Reserve System is required to keep a certain percentage of its demand deposits on deposit with a Federal Reserve Bank. This percentage is varied according to hew the Board of Governors feel it should be changed. While the present (December, 1966) reserve requirement rate is 16½% for reserve city banks and 12% for country banks, in order to see how the system works, let us for simplicity assume the reserve requirement to be 20%.

If the reserve requirement is 20%, it means that if a member bank receives a deposit of $1000, it must deposit with its reserve bank $200. It then has $800 which it can use to make loans or purchase securities. Since the more the bank loans out, the more profit it will receive, it will probably loan out all $800. The balance sheet will be as follows.

Loans and investments	$800
Reserves with Federal Reserve	200
Demand Deposits	1000

17 The Federal Reserve System, Board of Governors of the Federal Reserve System, Washington, D.C., (1954), p. 15

However, the $800 the member bank loans or invests is used as payment for something and returns to another account as a deposit of some kind. Of this $800, $160 must go to the Federal Reserve Bank, leaving $640 to use in loans and investments. This process can continue until $5000 is deposited in the banking system. This means that $1000 of 'high-power' money placed in the member bank initially has 'created' $4000. This process is known as the multiplier effect, and the amount of money which can be created from an initial deposit is equal to the reciprocal of the reserve requirement times the initial amount. That is, if the reserve requirement had been 25%, then only four times the initial amount, or $4000 would have resulted.

Therefore, in order to change the amount of money in the economy, the Federal Reserve can adjust the reserve requirement. Using the previous example, let us say the Federal Reserve wants more money in the economy. They would lower the reserve requirement to, say 16½%. Then the balance sheet of the initial $1000 would appear as follows.

Loans and investments	$834
Reserve with Federal Reserve	166
Demand Deposits	1000

By the multiplier effect, the end result of this $1000 deposit would be $6000.

Conversely, if the reserve requirement were 25%, only $4000 in deposits would result. Of course, all of the above examples are on the assumption that everybody that receives $1000 spend it in the same economic system.

Also, the lowering of reserve requirements creates excess reserves which the banks can use from money already deposited. For instance, if the requirement were initially 20% and a bank had $200,000 in demand deposits, it must maintain a reserve of $40,000. However, if the requirement is lowered to 15%, this lowers amount required in reserve to $30,000, and frees $10,000, which could use the multiplier effect to create around $50,000.

If the requirement were raised to 25%, it would raise the reserve requirement to $50,000. Therefore, the bank must call in $10,000 in loans and investments to raise its reserve.

The reserve requirements are not static figures, but are figured on the bank's average balance over a week. The following chart shows how the reserve requirements have changed in the last seventeen years.

	demand deposits		time deposits	
	reserve city banks	country banks	reverse city banks	country banks
Dec. 31, 1949	18	12	5	5
" ", 1954	18	12	5	5
" ", 1959	16½	11	5	5
" ", 1966	16½	12	4	4 [18]

The Federal Reserve adjusts these requirements in accordance with the need for tight or easy credit. However, in recent years, the importance or reserve requirements in controlling has been taken over by open market operations because of its easier handling and the fact that its effect is quicker and more pronounced.

The second major control is the control of member bank borrowing. "The chief instrument in this control is the borrowing

[18] Federal Reserve Bulletin, Board of Governors of the Federal Reserve System, Vol. 52 #12 (December, 1966) p. 1785.

or discount rate. This is the charge to the borrowing bank... Federal Reserve loans to member banks take two main forms. one is the discounting (or rediscounting) of notes that has been received by the bank from its customers. The second is lending on a bank's own note supported by collateral." [19] Since the second is far more common, and also the principles are the same for both, we will confine our discussion to the latter. In member bank borrowing, the Federal Reserve grants a request for a loan (usually for about fifteen days) in return the bank's note supported by collateral, which is usually government debt.

The bank's desire to borrow depends on conditions relevant to the market as well as the bank itself; for instance, will it turn to the money market for 'Federal funds', or will it borrow from another bank, or sell some of its securities? Answers to these questions are determined by how the money market stands and what reserve requirements and interest rates are.

Reasons for a bank's need to borrow are numerous. Most of the time it is just to meet a need for short-term cash, when the bank has miscalculated the amount of money to be drawn out, and they fall below their reserve requirement. If they prefer not to sell their securities, they go to the Federal Reserve Bank for a loan.

The discount rate is traditionally lower than bank lending rates; however, continous borrowing to use the funds for profit making is frowned upon. "The discount policy of Federal Reserve Banks does not make them lenders of last resort.......for, the discount rates charged are not penalty rates. Indeed, under

[19] Lowell Harriss, <u>Money and Banking</u>, Allyn and Bacon, Inc., New York (1961), p. 175.

some circumstances, Federal Reserve Banks approach what might be termed a position of lender of first resort. There, in conditions of monetary tightness, the Federal funds rate will rise to the level of the discount rate, but will not exceed that rate. This , in return, means that in times of strong denand for private credit concomitant with a restrictive central-bank policy it is more profitable for member banks to resort to the discount window of the Federal Reserve Banks than to bid up the Federal funds rate." [20]

Since 1952, there has occurred a revival of the use of discounting by member banks to obtain funds. This revival coincided with a return to active anti-inflationary activities on the part of the central bank, and today the discount rate carries more signifance than it has in the past. As a result of this, changes in the rate have some psychological effect. For instance, when in the spring of 1967, the Federal Reserve lowered the discount rate, it was taken to mean that they were ending their tight money policies.

As appoint of final emphasis, it should be stated that the discount rate does not produce the market rate of interest. This rate is tied to many other things in addition to the disc count rate.

The following chart shows the changes in the Federal Reserve discount rate over the past eleven years. The range are those amounts over which each bank can set its own rate. As a

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[20] Jay O'Hara, Money and Banking, Pinnan Publishing Co. New York (1948), p.88-9.

result, often the rates vary in different sectors of t e country.

Year	Range
1955	$1\frac{1}{2}$-$2\frac{1}{2}$
1956	$2\frac{1}{2}$-3
1957	After reaching a high of $3\frac{1}{2}$, it fell to 3 at years end.
1958	The rate continued to fall $1\frac{1}{2}$. but rose back to $2\frac{1}{2}$
1959-65	The rate rose steadily to an all time high of $4\frac{1}{2}$ in December, 1965.[21]

The third and, in the concensus of the authorities, probably the most important control is the open market operations. Open market operations are essentially what the name sounds like they are; it is simply the buying and selling of securities by the Federal Reserve in the money market. All open market # sales and purchases are made at the New York City branch, and the cost or receipts are shared by all twelve banks in proportion to their assets. The Federal Open Market Committee determines whether or not sales are made. Briefly, the process goes like this. When the Open Market Committee believes more money needs to be placed in the economy a purchase is authorized. The purchase is made just as an individual would purchase securities. The Federal Reserve representative goes to a securities dealer and buys a certain amount of securities. The Federal Reserve gives the dealer a check for the sale price. He would

[21] Federal Reserve Bulletin, Board of Governors of the Federal Reserve System, Vol. 52 #12 (December, 1966), p.1786.

deposit it in a member bank. This would increase their reserves and enable them to loan and invest more. This process would spread to other banks and the multiplier effect would greatly increase the initial amount. For instance, let us assume that the Federal Reserve purchases $10,000,000 of securities. If the reserve requirement is 20%, then this would give the member bank $8,000,000 of new money to loan and invest, which would eventually, by the multiplier effect, create a total of $50,000,000 in demand deposits. In like manner, the Federal Reserve can greatly reduce the amount of money in circulation by selling securities. This act serves to take money out of the economy and return it to Federal Reserve. The primary securities that the Federal Reserve deals in are United States Government paper.

"The power that can be exerted by open market operations is greater at some times than at others. The response of banks, and of their customers, is not automatic. Banks, for example, may be changing their demands for (excess) reserves. Many variations of conditions are conceivable......

"Open market operations are under the control of the System. It can speed up or slow down actions. Gradual, unspectacular action is possible. Policy can be reversed without headlines that may bring unexpected public response. Authorities can 'feel' out the market. Or they can act with quick and impressive vigor." [22] It is this flexibility and swiftness and

[22] Lowell Harriss, Money and Banking, Allyn and Bacon, Inc., New York (1961), p. 181-2.

strength of action that makes the open market operations the powerful tool that it is.

Another method the Federal Reserve hqs at its disposal for controlling credit is the power to set margin requirements on the borrowing of funds for the purchase of securities. "The Securities and Exchange Act of 1934 conferred upon the Board of Governors of the Federal Reserve System the authority to set maximum loan values on nonexempted securities which are used as collateral for loans for the purpose of purchasing or carrying secutities...... The Board of Governors many increase (or decrease) the margin and proportionately (change) the loan value in its discretion and in the interest of checking the use of bank funds for speculative purposes." [23] If the margin requirement is 60%, it means that 60% of the market value of the security must be paid in cash.

This power was an outgrowth of the stock market crash of 1929, on which the price pise was built on purchases made with as much as 90% borrowed funds. The margin requirement was designed to prevent this by causing purchases to be predominately cash, thus reducing speculation. "The requirements since 1937 have unquestionably reduced the pyramiding of borrowing to buy on a rising market; no one can say by how much. Defenders of a selective control of this type believe that reliance upon general monetary restraint to produce a comparable effect in this particular sector would have hurt business generally." [24]

[23] Jay O'Hara, Money and Banking, Pinnan Publishing Co. New York (1948), p. 311-2.

[24] Lowell Harriss, Money and Banking, Allyn and Bacon, Inc., New York (1956), p. 185.

So, the margin requirement is strictly a credit control of the Federal Reserve. The following table shows how the Board of Governors has varied the margin requirement over the period from 1945-55.

Margin Requirements
(Per cent of market value)

	July 5, 1945 Jan. 20, 1946	Jan. 21, 1946 Jan. 31, 1947	Feb. 1, 1947 Mar. 29, 1949
Regulation T (for extension of loans by brokers, dealers, and members of national security exchanges)	75	100	75
Regulation U (for loans by banks on stock)	75	100	75

	Mar. 30, 1949 Jan. 16, 1951	Jan. 17, 1951 Feb. 19, 1953	Feb. 20, 1953 Jan. 3, 1955
Regulation T	50	75	50
Regulation U	50	75	50

	Jan. 4, 1955 April 22, 1955	Effective April 23, 1955
Regulation T	60	70
Regulation U	60	70

[25]

The Federal Reserve has other miscellaneous powers with which it can control bank credit. "It can decide in borderline cases whether specific paper is eligible to pledge as collateral for member bank borrowing. During World War II and the fighting in Korea, the System had varying control over lending to finance installment purchases and purchases of houses; Congress also gave it power to guarantee loans to private business to finance facilities needed for military output. From the 1930's to 1959

[25] Whitney Hanks, Money, Banking and National Income, Alfred G. Knopf, New York (1956), p. 287.

it had the power, which it almost never used, to make direct loans to business for working capital. It is authorized to lend up to $5 billion directly to the Treasury." [26]

Services of the Federal Reserve System

In addition to these controls, the Federal Reserve also renders the member banks many services. One of these services is handling the member bank reserve accounts. The reserve accounts are handled much as commercial banks handle individual accounts. In the course of a year, a member bank may have to borrow to meet reserve requirements, will both draw out and deposit cash in Federal Reserve Banks, and will transfer funds among themselves. The Federal Reserve handles all these transactions.

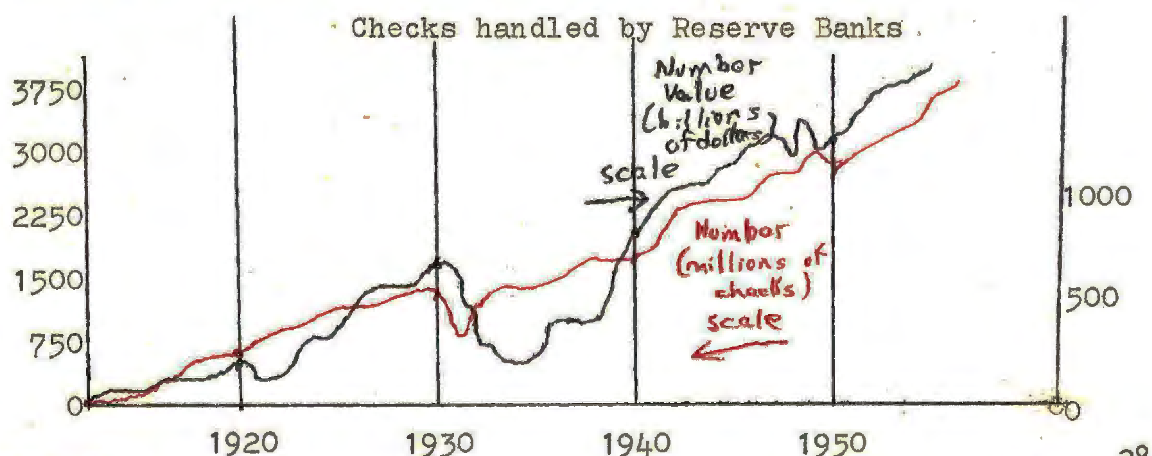
The Federal Reserve System distributes currency. Since anytime an individual receives currency, he gets it, directly or indirectly, from a bank; it stands to reason that banks must get their currency from someplace. The source is the Federal Reserve. The Federal Reserve supplies and replenishes member banks with the kind and amount of currency they want while charging it to their reserve account. Federal Reserve Banks keep on hand Federal Reserve notes and Treasury currency, which consists of silver certificates, United States and coin.

While currency is indispensible, it is checking accounts which are involved in the major part of todays transactions. The Federal Reserve handles the majority of these checking transactions. "For example, suppose a manufacturer in

[26] Ibid, p. 185-6.

Hartford, Conn. sells $1000 worth of electrical equipment to a dealer in Sacremento, Calif. and receives in payment a check on a bank in Sacremento. The Hartford manufacturer deposits the check in his Hartford bank. The Hartford bank does not want currency for the check; it wants credit in its reserve ac account at the Federal Reserve Bank of Boston. Accordingly, it sends the check (along with other checks) to the Federal Reserve Bank of Boston, which in turn sends it to the Federal Reserve Bank of San Francisco, which in turns sends it to the Sacremento bank, The Sacremento bank charges the check to the account of the depositor who wrote it, and has the amounte charged to its account at the San Francisco Federal Reserve Bank. The Reserve Bank of Sanfrancisco thereupon credits the Federal Reserve Bank of Boston, which in turn credits the account of the Hartford bank." [27]

As the accompanuing chart shows, the number of checks handled by reserve banks has grown greatly.



[28]

[27] The Federal Reserve System, Board of Governors of the Federal Reserve System, Washington, D.C. (1954), p. 156.

[28] Ibid., p.157.

The Federal Reserve System also acts as the principal bank for the United States Government. It handles the receiving and disbursing of funds for the government, and is in charge of receiving and processing applications for new issues of Treasury bills, and for selling and collecting on them. The Federal Reserve Systems administered tax and loan deposits for the Treasury. The Reserve Bank redeems Government securities as they mature. "Because of its location in one of the principal financial centers of the world, the Federal Reserve Bank of New York acts as the agent of the United States Treasury in gold and foreign exchange. It also acts as depositeo for the International Monetary Fund and the International Bank for Reconstruction and Development." [29] The Federal Reserve also publishes some eight periodicals, the most important of which is the monthly Federal Reserve Bulletin.

Summary

We have traced the Federal Reserve System from the reasons for its conception until the present. I hope I have presented the Federal Reserve as it should be presented; as an organization which has enormous power over the monetary policy of our nation, but which is staffed by members of all walks of life. I hope after reading this paper, the reader will have a better understanding of how the Federal Reserve System works.

[29] Ibid, p. 102

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