FEDERAL RESERVE BANK OF NEW YORK

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The Federal Reserve System

(Note: This material served as the basis for a talk by William F. Treiber, First Vice President of the Federal Reserve Bank of New York, before the Banking Law Section of the New York State Bar Association at the Hotel Waldorf Astoria on January 29, 1953. The talk was illustrated by visual aids, making use of "flannel boards". The description of many processes and practices has been simplified, and approximate figures have been used, in order to facilitate concentration on the principles involved.)

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Fields of discussion

Our discussion this morning will fall into four fields:

- (1) Federal Reserve Banks and their relationship to the commercial banks.
- (2) The economy.
- (3) The money supply.
- (4) Bank reserves.

The Federal Reserve Banks and commercial banks

Independent banking system

In the United States we have what is called an "independent banking system"; we have about 14,000 commercial banks. In this respect our country is unlike most other countries of the world, in which the number of banks is limited to perhaps a dozen or so, as is true in the case of our neighbor to the north--Canada.

Some of our banks are organized under Federal law; they are called national banks. Others are organized under State law. The operations of this large number of banks--some of which are small and some large--are co-ordinated by the Federal Reserve System.

Federal Reserve System -- a wheel

If we liken the Federal Reserve System to a large wheel, we have the member banks at the rim. At the hub is the Board of Governors of the Federal Reserve System in Washington, which is appointed by the President of the United States with the advice and consent of the Senate. In between are the spokes, the twelve Federal Reserve Banks.

All national banks (there are about 5,000 of them) are members of the Federal Reserve System. They must comply with the rules of the Federal Reserve, and they are entitled to the assistance which is afforded to members. All State banks which apply for and are accepted into membership in the Federal Reserve System are also members; State member banks number about 2,000. Member banks hold about 85 per cent of the commercial bank deposits of the country.

The United States is divided into twelve districts, with one Federal Reserve Bank in each district. The entire State of New York, the twelve northern counties of New Jersey, and Fairfield County, Connecticut, are served by the Federal Reserve Bank of New York. A majority of the directors of the Reserve Banks are elected by the member banks in the district, and the stock of the Reserve Banks is owned by the member banks. The work of the Federal Reserve Banks is coordinated and supervised by the Board of Governors of the Federal Reserve System in Washington.

Bankers' banks

The Federal Reserve Banks are called bankers' banks:

- (1) They maintain bank accounts for member banks the same way that a commercial bank maintains a checking account for you or me.
- (2) The Reserve Banks furnish member banks with money. Just as you or I may go to a member bank and cash a check to get currency, the member bank gets its supply of money from the Federal Reserve Bank.

Currency and coin in the hands of the public amount to about \$27 billion:

\$22.5 billion Federal Reserve notes\$ 3.0 billion other paper money\$ 1.5 billion coin.

- (3) The Federal Reserve Banks collect checks for their member banks. The total dollar amount of checks written last year was about \$2,250,000,000,000 (2 1/4 trillion).
- (4) The Federal Reserve Banks make loans to their member banks, just as member banks make loans to their customers.
- (5) The Federal Reserve Banks also act as bankers for the United States Government.

The Treasurer of the United States maintains her bank accounts with the Federal Reserve Banks.

The Reserve Banks issue and pay savings bonds and all other kinds of Government securities.

But the most important function of the Federal Reserve is to influence the money supply of the country and thus to help stabilize the economy. In the inflationary situation in which we have been involved since the Communist invasion of Korea, this has meant fighting inflation.

Economy

For the purposes of our analysis, let's divide the economy into three parts: production, distribution and consumption.

Producers include all the extractive industries such as mining and farming; the processing and fabricating industries such as steel plants, oil refineries, textile mills and automobile factories; and independently employed professional people such as doctors, lawyers, and engineers. Out of the productive process comes a flow of goods and services available for consumption.

Who are the sellers? Sellers include the whole distributive mechanism of the economy at all levels: wholesalers, jobbers, retailers, etc. The contact that most of us have with sellers is at the retail level--the corner drug store, the grocery, the meat market, the local movie theatre--because that

is where we as consumers come into contact with them. Sellers pass the goods and services from the producers who make them to the consumers who use them.

Each of us is a consumer. Consumers include everyone who uses goods and services--Tom, Dick and Harry, you and I.

These groups--producers, sellers and consumers--are not mutually exclusive. Consumers are also producers; they are also sellers. Consumers contribute their labor and skill, their capital, their land and their raw materials to the productive process. Out of this process come goods and services. These are brought back to consumers through the medium of the sellers.

Thus there is a circular flow of goods and services through the economy, from producers to sellers to consumers to producers.

This flow is not self-generating or self-perpetuating. Consumers cooperate in producing goods in order to be able to consume. In a money economy such as ours this means they expect and demand a money payment for their contributions to production so that they will have money to buy the goods and services they want.

Producers pay consumers for the consumers' contribution to production. Consumers, in turn, pay the sellers for goods and services the consumers want. The sellers, in turn, use the money they receive from the consumers to buy more goods and services from producers in order to sell them to consumers.

Thus, in addition to the flow of goods and services, there is an opposite flow of money income and expenditures from producers to consumers to sellers to producers. When the flow of goods and services and the opposite flow of money payments are about in balance over a period of time, the economy is stable.

This portrayal of our economic system has, of course, been simplified.

There are a lot of variables. Many factors may affect the flow of goods and

services or the flow of money payments. A drought will cut down the amount of farm products available for distribution. A factory strike will cut down the quantity of available manufactured goods. On the other hand, if consumers work more efficiently--if they contribute more through their services--more goods are produced and more goods are available for sale.

In our free economy system, consumers have a free choice; they can decide what to buy, and they can decide whether or not to buy at all. A particular product that has been popular for years may lose its appeal, and the demand for another product may skyrocket. At the same time there can be shortages in some kinds of goods and surpluses in other kinds.

Thus it is apparent that the flow of goods and services may fluctuate tuate for a variety of reasons. And the flow of money payments may fluctuate for a variety of reasons. For example, suppose consumers decide not to spend all their income--to save some. If the savings are not used by others for production or consumption, the flow of money payments will decline.

When there are more goods and services than consumers are willing or able to buy, we have deflation; when there is too much money chasing too few goods, we have inflation.

Influence of Government

There are two other very large factors that influence the flow of money payments. These are the Government and the banks.

expenditure stream through taxes levied on producers, consumers and sellers. Government is also a large spender--for defense, for salaries, for supplies, etc. If Government expenditures exactly match Government receipts, the size of the flow of income and expenditures is, of course, unaffected. If, however, the Government spends less than it takes in (if it runs a budget surplus), Government is saving, and the effect of this action is the same as that of

net private saving--a tendency for the flow of money income and expenditures in the economy to decrease. Conversely, if Government spends more than it takes in, borrowing the difference, the effects may be inflationary unless the Government borrows from private savers who otherwise would have spent the funds they lend the Government. If, for example, the Government borrows from the commercial banks, which create money for the Government to spend, the money supply and the flow of income and expenditures will be increased.

Influence of banks

This brings us to the banking system. The banks in some respects are like the Government. They siphon money out of the spending stream and they pour money into the spending stream. Banks and other financing institutions marshal the savings of the country. They gather together the savings of those persons who do not want to spend all their income and they make such savings available for the use of those persons who want to spend more than their income. Thus the banking system serves as an intermediary, making it possible for the savings of one group of persons to be put to work by another group of persons.

Of course, no one can guarantee that borrowers will want to borrow exactly as much as savers will want to save. Borrowers may want to borrow less or they may want to borrow more.

Take the situation in the immediate postwar years, for example.

During World War II consumers could not get durable goods like cars, houses, refrigerators, etc. After the war there was a tremendous demand for these things and, as they became available, consumers drew down their savings and also borrowed large amounts to buy them. Sellers borrowed to expand their inventories, to meet the demands of consumers. Producers borrowed to expand their plants and increase their output, to fill the sellers' orders. Borrowing exceeded saving by large amounts and for considerable periods of time. And, as

borrowers spent the proceeds of their loans, the flow of money income and expenditures increased more rapidly than the flow of goods and services could be increased. So prices rose, and rose, and all of us became familiar with the meaning of the word "inflation".

Commercial banks

Some people and businesses were able to borrow and spend in this period more than other people and businesses were saving because <u>commercial</u> <u>banks</u>, under our type of banking system, are able to "create" money when they lend. We will see later how this is done, in the discussion of the money supply. Here we need merely note that the money-creating power of commercial banks makes it possible for borrowers to borrow and spend more than savers are saving, thus increasing the flow of money income and expenditures.

Now, of course, the creation of money by the commercial banks is not an evil to be eradicated. Commercial banks are created pursuant to law because they serve a genuine need. We need to create money. Crops do not grow and ripen at well-spaced intervals throughout the year. Crops have to be harvested within a short period of time, they have to be stored, transported and distributed, and they have to be available at the corner market for you and me to purchase throughout the year. The creation of money by the commercial banks helps to smooth out the rough spots in our economy which otherwise would exist because of seasonal factors.

In addition, bank loans may help producers increase production.

And as the production of the country increases and as population increases,
we need an increase in the money supply. But we don't want to see the money
supply increase faster than the increase in goods and services.

We are now able to see, first, that variations in the flow of money income and expenditure may have significant effects on the level of economic

activity; and, second, that variations in the size of the nation's money supply may cause the flow of income and expenditure to rise or fall. This indicates that the money supply is a very important economic variable, and one that should be studied closely.

Money supply

What is the money supply?

Obviously, it includes the coin in our pockets and the paper currency in our wallets. Is that all? Indeed not. Most of the business transactions of the country involve payment by check. In fact, 90 per cent of the business of the country is done by check. As pointed out earlier, the total dollar amount of checks written last year was more than \$2 trillion. Certainly the money supply must include checking account money.

The money supply consists of two elements:

- (1) Coin and paper currency, commonly referred to as "currency".

 Our interest lies in currency in the hands of the public,
 i.e., currency outside the banks.
- (2) Check book money. This is referred to as "demand deposits adjusted".

Demand deposits may be withdrawn from a bank without notice. They are distinguished from time deposits held in a savings bank or in the thrift or savings department of a commercial bank. In the case of savings or thrift deposits, the depositor must present his passbook to make a withdrawal. In addition, the bank may legally require advance notice of intention to withdraw, although as a matter of practice such advance notice is not normally required. A depositor cannot draw a check on time deposits. Time deposits do not become checking account money until they are converted into demand deposits.

We use the word "adjusted" after "demand deposits" because we exclude from total demand deposits: (1) interbank deposits, (2) deposits of the United States Government, and (3) cash items in process of collection.

Currency outside the banks is about \$27 billion. Demand deposits adjusted are about \$100 billion. Adding these, we get about \$127 billion. Let's call it \$125 billion for easier reference. This is the money supply. Is this a static figure? By no means.

In 1940 the money supply was roughly \$40 billion. If one were to draw a chart showing the money supply from 1940 to the present he would see, of course, that it more than tripled. But he would also see that the money supply did not increase in a straight line. And if he were to place on the same chart a line showing the loans and investments of the commercial banks, he would be impressed with the close relationship between the loans and investments line and the money supply line. When one goes up, the other goes up; and when one goes down, the other goes down.

As pointed out earlier, one of the most significant things about a commercial bank is its ability to create purchasing power by creating deposits—to create money. When a commercial bank makes a loan it creates a deposit in a customer's checking account.

Just how is this money created? Let's take a specific case. Suppose you want to borrow \$5,000 from your bank. Maybe you run a drug store, or a grocery store. You sign a paper promising to pay the bank \$5,000--you give the bank your promissory note. The bank credits your checking account with \$5,000. The bank's assets are now increased by \$5,000--it has your note; and the bank's liabilities are increased by \$5,000--your increased deposit balance. In due course you draw checks to pay for goods and services; the money created by the loan goes into the spending stream; it becomes part of the general money supply of the country. Ultimately your sales receipts come rolling in; other people give you their checks. Their checking accounts are decreased while yours is built up. Then you repay the \$5,000 loan. Your checking

account is reduced by this amount; the bank's deposit liabilities are reduced by \$5,000; the bank returns your note and its assets are decreased by \$5,000. The money created by the original loan is now extinguished; the cycle is completed.

Is there any limit on the power of a bank to make loans--to create money? Yes indeed. By law every member bank is required to keep on deposit in its Federal Reserve Bank a certain percentage of its deposits. These requirements are called reserve requirements. Roughly speaking, for every \$1,000 of checking accounts a bank maintains for its customers, it must keep \$200 on deposit in the Federal Reserve Bank.

Thus, when your bank lends you \$5,000 and credits your checking account with this amount, the amount of money it must have on deposit in the Federal Reserve Bank is increased by \$1,000. If your bank does not have extra or excess reserves on deposit with the Federal Reserve Bank, it has to get them some way. This it might do in a number of ways. It could borrow from the Reserve Bank and have the amount of its loan credited to its reserve account; or it could sell some investment, such as a Government security, to get the money.

On the other hand, if your bank has substantial excess reserves at the Reserve Bank, your bank can make more loans to its customers and thus increase its deposits without borrowing from the Reserve Bank or selling any of its investments. Reserve balances at the Reserve Bank do not earn any interest. Thus, if your bank has more excess reserves than it needs it will probably try to use them. Presumably it will make loans locally or buy securities. It would prefer to make loans locally because in this way it is serving the needs of its community and it receives a relatively higher return on loans than on investments in securities, especially Government securities.

Member bank reserves are now about \$20 billion. We saw earlier that demand deposits are about \$100 billion. This is another way of showing that \$1 in reserves will support \$5 in deposits; that \$1 of reserves will support an increase of \$5 in bank loans and investments.

Let's take another example of a banking transaction. Suppose you borrow \$5,000, as in the earlier illustration. Let's assume your bank has plenty of excess reserves to support the increase of \$5,000 in its deposits. Suppose you draw a check; the payee deposits the check in another bank and the money never gets back to your bank. How does this affect the lending power of the banking system?

Let's assume you draw a \$1,000 check and the payee deposits it in his bank. The payee's bank sends the check to the Federal Reserve Bank which presents the check to the drawee bank--your bank. (And, incidentally, the Federal Reserve Bank of New York collects well over a million and a half checks each day.) In collecting the check which you issued, the Reserve Bank charges the reserve account of your bank on the books of the Reserve Bank by \$1,000, and the Reserve Bank credits the reserve account of the payee's bank on the Federal Reserve Bank's books by \$1,000. The payee's bank now has \$1,000 more in deposits--because the payee deposited your \$1,000 check there--and the payee's bank has \$1,000 more in reserves. If just before this transaction the payee's bank had just enough reserves--just the required amount, no more, no less--the \$1,000 increase in its deposits would make it necessary for the payee bank to keep \$200 more in the Federal Reserve Bank, but it has increased its reserves by \$1,000. Thus it now has \$800 excess reserves.

Even though your bank lost \$1,000 of reserves when your check was paid and thus your bank was no longer able to use such reserves as a basis for expanding its loans and investments, the payee's bank was enabled to expand its loans and investments. From the point of view of the banking system as a

whole, the banking system could increase its loans and investments by \$5,000 for every \$1,000 of reserves. Thus, an increase of one dollar in bank reserves may serve as the base for a five-fold increase in commercial bank deposits. For this reason balances in the Federal Reserve Banks are often called "high-powered dollars" as compared with ordinary deposit dollars, or "low-powered dollars".

System influence on money supply

Thus it is apparent that if the Federal Reserve System can create a situation which will put member banks in the position of having excess reserves, the banks will probably seek to use those funds. The local bank presumably will exert more effort to make loans, and if it cannot do this it will invest in securities, probably Government securities.

Conversely, if the Federal Reserve System requires a member bank to keep more of its assets in the form of deposit balances at the Reserve Bank, if the System makes it more difficult for a member bank to obtain reserves, there will be a tendency on the part of the member bank to be cautious in making additional loans. Perhaps it will sell some of its investments, probably Government securities.

The Federal Reserve tries to see that the economy is not unbalanced by an over-supply of money or by a shortage of money; or, to put it another way, the Federal Reserve tries to exert its influence to achieve its principal objective--broad continuing economic stability.

Bank reserves

This brings us to the next part of our story. How do commercial banks get reserves? The major sources of bank reserves are

- (1) gold imports;
- (2) net decreases in money in circulation; and
- (3) the lending and investment activities of the Federal Reserve Banks.

Gold imports

Let's examine the first source of bank reserves -- namely, gold imports. The mining of gold in the United States or the importation of gold normally increases our monetary gold stock. The United States Treasury buys gold at \$35 a troy ounce. Most of the newly mined gold comes from abroad--from South Africa. As a case in point, let us assume that the South Africans have \$1 million in gold to sell. The gold is delivered to the United States Assay Office, and the United States Treasury draws a check on the Treasurer of the United States payable to the order of the seller. The check is payable at a Federal Reserve Bank. The seller deposits the check in a commercial bank for credit to his account. The deposits of the commercial bank are increased by \$1 million. The commercial bank sends the check for collection to the Federal Reserve Bank of its district. The Federal Reserve Bank charges the account of the Treasurer of the United States with \$1 million and credits \$1 million to the reserve account of the commercial bank. In order to replenish its account at the Federal Reserve Banks the Treasury issues \$1 million worth of gold certificates to the Federal Reserve Banks and the account of the Treasury on the books of the Reserve Banks is credited with \$1 million. Thus, in effect, the importation of \$1 million of gold increases member bank reserves at the Federal Reserve Banks by \$1 million without increasing or decreasing Treasury balances at the Reserve Banks. Since the deposits at the commercial bank which received the Treasury check were increased by \$1 million and the bank's reserve requirements were increased by only \$200,000 in connection with this transaction, the overall result of the transaction is to furnish commercial banks with \$800,000 of excess reserves which may serve as a base for multiple loan expansion.

If a foreign central bank desires to purchase gold from the United States Treasury, this would result in a corresponding contraction in member bank reserves. If the monetary gold stock of the United States is reduced

by \$1 million--if a foreigner buys \$1 million of gold from the United States

Treasury--the deposits of the commercial banks are reduced by \$1 million, and

bank reserves are reduced by \$1 million. This is a restraining influence on

the loan and investment policy of the commercial banks.

The point to remember is that when the United States Treasury buys gold and adds it to the monetary gold stock, member banks get bank reserves which may serve as a basis for expanding their loans and investments, and, thus, the money supply.

Changes in currency in circulation

We saw earlier that there is now about \$27 billion of currency in circulation outside the banks. The amount in circulation varies at different times of the year. In the period before Christmas, more people want money in their pockets and there is a large seasonal increase of currency in circulation in December. Following the holidays, there is a substantial return of currency to the banks which, in turn, take it to the Federal Reserve Banks and get credit in their deposit accounts. The banks of the country normally keep on hand merely enough currency to take care of their daily needs; when they have extra money they send it to the Reserve Bank for credit to their reserve accounts. Just as you or I get a credit on the books of our bank when we make a deposit in cash, so member banks get reserve balances when they deposit currency with the Reserve Bank. Conversely, when currency in circulation is increasing, as is the case before Christmas, member banks lose reserves.

Lending and investment activities of Reserve Banks

The Federal Reserve Banks may make loans to member banks. The Reserve Bank credits the reserve account of the borrowing member bank the same way that the member bank credits its customer's checking account when the member bank makes a loan to its customer. And, of course, when a member bank

pays off a loan at the Reserve Bank, deposits in the amount of the payment are extinguished. The member bank's reserves are reduced by this amount.

The Federal Reserve Banks may purchase Government securities.

Purchases and sales of Government securities by the Reserve Banks in the Government securities market are referred to as open market operations. Such purchases increase member bank reserves and it does not matter whether the Reserve Banks buy the securities from a commercial bank, an insurance company, or Tom, Dick or Harry.

When the Reserve Bank buys Government securities, the Reserve Bank gives the seller a check drawn on the Reserve Bank. The seller deposits the check in his commercial bank and the deposits of the commercial bank are increased by the amount of the check. The commercial bank presents the check to the Reserve Bank for payment. The Reserve Bank credits the reserve balance of the commercial bank and thus the reserves of the commercial bank are increased by the full amount of the purchase price of the securities. Thus, when the Reserve Banks buy \$1 million of Government securities from anyone other than a commercial bank, the deposits of the commercial banks of the country are increased by \$1 million, and the reserves of the commercial banks are increased by \$1 million.* These additional reserves—these high-powered dollars—enable the commercial banks to expand their loans and investments. The purchase of Government securities by the Reserve Banks, other things being equal, makes for monetary ease.

Suppose the Reserve Bank sells Government securities. The purchaser draws a check on a member bank and delivers the check to the Reserve Bank.

The Reserve Bank presents the check to the member bank for payment. Payment is

^{*} When the Reserve Banks buy \$1 million of Government securities from a commercial bank there is no change in the deposits of the commercial banks of the country, but the reserves of the commercial banks are increased by \$1 million.

made by debiting the member bank's reserve account at the Federal Reserve
Bank, thus reducing the member bank's reserves by the full amount of the
check--the purchase price of the securities. The member bank, in turn,
charges the purchaser's account on the books of the member bank by the amount
of the check. The sale by the Reserve Banks to anyone other than a commercial
bank, of \$1 million of Government securities, reduces the deposits of the
commercial banks of the country by \$1 million, and it also reduces the reserves of the commercial banks by \$1 million.* A sale of Government securities
by the Reserve Banks makes for monetary restraint.

Open market operations have a powerful influence on the money supply because, by decreasing or increasing member bank reserves, such operations tend to discourage or encourage the expansion of demand deposits of the member banks. Open market operations are the most important credit instrument the Federal Reserve has.

Source of member bank reserves

Now that we have seen the three principal ways in which member banks as a whole can get reserves, let us see how member banks got their present reserves.

Let's go back to 1914, just before the establishment of the Federal Reserve System. At that time the total cash reserves of all banks in the United States were less than \$2 billion. Since then the monetary gold stock of the country has increased by more than \$21 billion, including the effect of the devaluation of the dollar in 1934; and the value of our monetary gold stock now is over \$23 billion. We can assume that all of this increase in gold stock resulted in additions to bank reserves. During this same period,

^{*} If the Reserve Bank sells \$1 million of Government securities to a commercial bank there is no change in the deposits of the commercial banks of the country, but the reserves of the commercial banks are decreased by \$1 million.

however, currency in circulation (outside the Treasury and Federal Reserve Banks) increased by more than \$26 billion, and this increase represented a drain of an equivalent amount of bank reserves since, when the Reserve Banks delivered this amount of currency to the member banks, payment was made by a charge to the reserve accounts of the member banks for the amount of currency withdrawn. At this point in our arithmetic we can see that, if all other things were equal, the banks would be left with a reserve deficit of more than \$3 billion, even if they had no reserve requirements to meet.

Actually, of course, member banks now have over \$20 billion of reserve balances, which means that they must have gotten a total of something like \$23 billion of reserve funds from some source other than gold inflows. That source was an expansion of Federal Reserve credit, caused primarily by the purchase by the Reserve Banks of large quantities of Government securities during World War II when the Federal Reserve Banks increased their holdings of Government securities by about \$22 billion. Without the creation of these reserves, the commercial banks of the United States could not have increased their loans and investments, as they did, from \$50 billion at the end of 1941 to \$124 billion at the end of 1945, and to more than \$140 billion at the end of 1952.

The ability of the Federal Reserve Banks to supply reserve funds to the banking system derives from powers granted the Reserve Banks by the Congress. Just as member banks are subject to reserve requirements, so the Federal Reserve Banks are subject to reserve requirements prescribed by the Congress. The Reserve Banks are required to have gold certificates equal to at least 25 per cent of their outstanding Federal Reserve notes and deposits. The amount of gold certificates the Federal Reserve Banks now have—that is, the amount of reserves the Reserve Banks now have—is about \$22 billion. The deposits and Federal Reserve notes of the Reserve Banks total \$47 billion. The Reserve

Banks now have a reserve ratio of about 45 per cent. The Federal Reserve Banks have more than \$10 billion in extra or excess reserves. Thus, the Reserve Banks have power, if it appears wise to do so, to increase their deposits and thus expand member bank reserves by many billions of dollars.

A few moments ago I referred to the importance of open market operations. There are two other credit instruments that the Federal Reserve System may use, either individually or in combination with each other or with open market operations, to affect the availability and cost of member bank reserves. The Federal Reserve may change the discount rate, and change the formal reserve requirements.

Discount rate

As pointed out earlier, member banks may obtain reserves by borrowing from the Reserve Banks. By raising the interest rate which they charge on such loans—this rate is called the discount rate—the Reserve Banks make it more expensive for member banks to increase their reserves through borrowing and thus discourage credit expansion. A decrease in the discount rate makes it less expensive for the member banks to increase their reserves, and therefore encourages credit expansion.

Changes in reserve requirements

The Federal Reserve Board has the power to change the required reserves of member banks within certain limits prescribed by law. But changes in reserve requirements are a blunt instrument. They release or freeze large blocks of funds. They apply to all banks irrespective of their different conditions. They are appropriate when fundamental changes are in order; but by their nature such steps should be infrequent. Reserve Bank open market operations ease the adjustments member banks may have to make when reserve requirements are changed.

Summary

To sum up, then, we can say that:

- (1) Our economy functions best when the supply of goods and services flowing from production through distribution to consumption is balanced against an equivalent flow of money payments--when there is neither too much nor too little money for the volume of available goods and services.
- (2) The Federal Reserve tries to see that there is neither too much nor too little money in our economy.
- (3) It can do so because checking account money is the most important kind of money and it is largely the result of commercial banks' loans and investments.
- (4) Commercial banks must "back up" every \$5 of checking account money by \$1 of reserves.
- (5) Commercial banks get the reserve dollars they need from the Federal Reserve Banks, which create reserves (and put them into the banking system) whenever the Reserve Banks lend or invest.
- (6) Unless the Federal Reserve Banks increase their loans and investments the commercial banks cannot increase theirs, and thus the money supply.*
- (7) The Federal Reserve Banks can create reserves, and the commercial banks can create deposits, because we have a statutory fractional reserve banking system. The Federal Reserve's ability to create high-powered reserve dollars (that can support bank deposits) stems from note issue and credit-granting powers given to it by the Congress.

Role of credit control

Our discussion has emphasized the role of credit control. Our concentration on this subject does not mean that credit instruments taken by themselves can assure the stabilization of the economy at a high level of production and employment. Credit policy is one factor. In the time of inflationary conditions or of potential inflationary pressures, other things also

^{*} Commercial banks could increase their loans and investments if there were an inflow of gold or a return flow of currency, but the Federal Reserve Banks could act to offset the effect of such flow by decreasing their loans and investments.

are important. Sound fiscal policy is important; this includes what the Government takes in and how it takes it in, and what the Government spends and how it spends it. Increased efficiency in production--increased productivity--can help expand the volume of available goods and services; this is fundamental to a real improvement in our standard of living.

Although credit policy cannot do the job alone, it can support other measures and, in turn, be supported by other measures in the important effort of seeking to stabilize the economy. This effort must succeed if, as a nation, we are going to preserve the integrity of the dollar--the purchasing power of wages, of profits, and of savings.