FEDERAL RESERVE OPERATIONS IN THE MONEY AND GOVERNMENT SECURITIES MARKETS

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July 1956

FOREWORD

THIS BOOKLET is the fourth of a series of publications by the Federal Reserve Bank of New York designed to furnish the student of banking with information, not readily available elsewhere, concerning various aspects of the national money market and factors affecting it. For some years, the men charged with carrying out the directions of the Federal Open Market Committee, through action taken at the Trading Desk of the Federal Reserve Bank of New York, have faced an insistent series of requests to describe what is done: not the policy, nor its effects; simply a review of the manner in which operations are conducted. It has not been physically possible to meet more than a small fraction of those inquiries through occasional speeches, nor have the strains of a Trading Desk assignment (for reasons that may become clearer to those who read what follows) permitted any of the men active in this work to take time out for preparation of the comprehensive manuscript that is undoubtedly needed. However, over the past two years, the author of this booklet has carried the main load of the speaking assignments that could be fulfilled. A number of those who have heard his oral presentation have suggested that he write down the main outline that has emerged from his various extemporaneous efforts, filling in some of the more significant details. This booklet is the result of an effort to respond to those requests.

We shall be glad to make additional copies available for classroom use and for similar purposes.

WILLIAM F. TREIBER
First Vice President

New York City
July 1956

[*Ninth Printing*
January 1964]

Contents:

Federal Reserve Operations in the Money and Government Securities Markets

I. Introduction: The System's "Defensive" and "Dynamic" Responsibilities

When the Federal Reserve System was established at the outset of World War I, there was a wide belief in the United States that the monetary system was a primary cause of periodic depressions, which appeared invariably to be set off by financial stringency and crisis. It seemed then, as the economy produced more and more goods, of greater variety, in more places, that there were increasingly frequent and severe mechanical failures in the functioning of the system which was supposed to provide the money to keep all of this in motion. There was something wrong with a monetary system which relied upon a rather inelastic supply of metallic and paper money to serve the dual purpose of basic reserves for the banking system and circulating currency. Sometimes the failure seemed to be a general shortage of currency; sometimes it took the form of lags or defaults in the collection of checks; and sometimes there were sharp regional shifts of currency or deposits (and notably such international shifts as paralleled financing of the annual movement of cotton from the South, through New York, to London and beyond) that put unbearable added pressures upon the money centers where the thousands of independent unit banks kept their reserves. These were, of course, only a few of the many manifestations — seasonal, regional, or general — of the inflexibility or perversity in the money and credit apparatus which were thought to be root causes of economic instability. To provide correctives for the varied forms of these mechanical failures,

Note: The author's debt to his associates is so large that any attempted list of acknowledgments would almost certainly be incomplete. Messrs. Tilford C. Gaines and Paul A. Volcker must be singled out, however, because of their valiant help in steering the original draft of this booklet through the final stages of editing, checking, and printing.

or abuses, of the nation's monetary system, the Federal Reserve System was created.

To a surprising degree, the System has in fact fulfilled all of the specific objectives originally set out for it; but that fulfillment has not by any means assured economic stability. As each kind of mechanical disturbance was checked — and such operations have taken continuous effort under changing conditions by an unsung nine tenths of all Federal Reserve employees over the past forty-two years — the supposed significance of that particular kind of disturbance receded. There was always so much more coming into visibility, to account for economic fluctuations, that little notice could be given to the removal of even some of the more serious mechanical obstructions which had once been listed among the strategic factors in business cycles. Actually, the greatest part of the System's daily effort even now is still consumed in tasks that have come to be taken for granted, and which very few observers would ever mention, without prompting, as significant aids to a stable, growing economy. The public eye has shifted from the early conception of a Federal Reserve System that should determinedly "keep money out of the way" by making the monetary machinery work smoothly, and has passed over to one that demands aggressive use of the central bank's influence upon money and credit to help promote economic growth and to help limit or counteract the inflationary or deflationary disturbances that are generated from time to time by an ever-changing constellation of widely varying economic forces.

Perhaps the earlier conception, and the wide range of operating functions that came with it, might be called the *defensive* side of the Federal Reserve System's duties — defending against those seasonal, regional, or perhaps accidental causes of sudden stringency that arise in the process of issuing currency, or clearing checks, or meeting net flows of funds among regions (or vis-à-vis other countries), for example, and which might by unhappy coincidence aggravate, or even ignite, a financial and economic crisis. But before many years had elapsed, it became apparent that the new Federal Reserve System could not adequately perform the functions of a central bank only by providing an elastic currency, assuring prompt negotiability of checks at par, pooling and settling the reserve flows among banks of all regions, and rediscounting self-liquidating commercial paper at various rates of interest. A more sensitive monetary control mechanism was wanted, to make greater use of the latent potential of a fractional reserve banking system in resisting inflation and deflation and facilitating economic growth. That shift-over from a purely *defensive* to what might be called a *dynamic* conception of Federal Reserve responsibility was evident all through the twenties and found full legislative expression in the Banking Act of 1935.[1] The emergence of open market operations as a major instrument of monetary policy was the symptom, and in many ways represented the substance, of this change.

But it would be misleading indeed to identify open market operations in any exclusive way with the *dynamic* side of Federal Reserve System operations. In practice, the *defensive* and the *dynamic* responsibilities of the System are carried out side by side, day by day, and most operating arms of the System are involved to some degree in each. The provision of currency, the processing and crediting of checks for collection, the expediting of wire transfers of deposit balances among banks and of Government securities among investors, the calling and disbursement of funds for the United States Treasury, the settlement of the United States balance of payments with other countries, and a variety of other receipts and disbursements of funds for foreign governments and central banks — all of these and other operations, though primarily *defensive* in character, nonetheless frequently are of real importance in the implementation of *dynamic* policy. And from the other side, the three main instruments of positive policy — reserve requirements, discounting, and open market operations — very frequently play a part in meeting the Federal Reserve's *defensive* responsibilities.

These can be no more than tantalizing introductory suggestions, however, until there has been an extended digression through the money market, and the Government securities market, to observe the way in which they now function and the economic services which they perform. From that background, it will be less confusing to return to the details of Federal Reserve System open market operations. Even then, no attempt will be made in this pamphlet to describe other operations — currency or check collection, changes in reserve requirements, the use of the "discount window", or any others — except as they relate to the conduct of open market operations. Nor will there be any space for policy formation as such — the real essence of the Federal Reserve System's *dynamic* responsibilities. Guides used in policy formation, or measures that might be used in appraising the effects achieved in implementing that policy, are not going to be discussed. This is intended only as a picture of the setting in which open market operations are carried out and the methods used in those

[1]The terms *defensive* and *dynamic* as used in this pamphlet are of the author's coinage and are not used in discussions within the Federal Reserve System. They do, however, have expository usefulness in this booklet.

operations. This picture will necessarily include some view of the relevant markets and at least a glimpse of the interrelations with other Federal Reserve operations, but it will center on the Trading Desk at the Federal Reserve Bank of New York, where since 1936 all outright market transactions in Government securities for the entire Federal Reserve System have been negotiated under the continuous direction of the Federal Open Market Committee (and where a major part of such transactions was carried out for at least a dozen years before that).[2]

II. The Role of the National Money Market

It is much easier to describe the money market than to define it. Even a description will necessarily have ragged edges. Some institutions or some types of credit instruments are by nature borderline cases, part in and part out of the money market. Moreover, practices change rapidly in a vigorous money market that is keeping pace with the needs of a growing, ever more diversified economy. Nor is there any single trading floor or exchange where the money market does its work, although the ultimate balancing-out of the supplies of and demands for funds from various parts of the country does take place through transactions among a variety of financial institutions located in the downtown financial district of New York City. However, efforts of both kinds — the definition or analysis, and the descriptive list or catalogue — are necessary in preparing to understand the techniques used by the Federal Reserve System to influence the money market through its operations in Government securities.

The general purposes and functions of a money market, and some of the more notable distinguishing features that have developed out of our indigenous

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[2]The Federal Open Market Committee, in essentially its present form and with its present powers, was established by the Banking Act of 1935. The relevant provisions of that act brought to culmination a gradual development, during the twenties and early thirties, toward formalizing and centralizing control over open market operations as their national significance became more widely appreciated. Originally, open market operations were designed largely to acquire earning assets for the Federal Reserve Banks or to meet local conditions, and each Reserve Bank consequently conducted operations individually and upon its own initiative. As early as 1922, however, an informal committee of Governors of several of the Reserve Banks was established to promote greater coordination in the open market operations of the individual Banks. Soon the better organized security operations became recognized as a useful instrument of monetary policy to supplement the use of the discount mechanism. Beginning in 1923, this Committee was brought more directly under the supervision of the Federal Reserve Board, which specifically directed that operations be carried out with primary regard to the state of business and the general credit situation, thereby effectively launching the Committee on the broad course it has since followed. The Banking Act of 1933 for the first time gave statutory recognition to the Committee (incidentally, giving it the present title), and helped to strengthen its control over the operations of the individual Banks. Until 1935, however, individual Reserve Banks were not compelled to act upon policy decisions reached by the Federal Open Market Committee.

financial arrangements in the United States (particularly in contrast to those of the United Kingdom), are outlined here. Section III lists the various institutions which now make up the national money market in this country and the various forms of money or short-term credit which are its stock in trade.[3]

WHAT IS THE MONEY MARKET?

Broadly defined, the money market could include all forms of short-term credit, as contrasted with the capital market which deals in long-term debt obligations and equities. (Even more broadly, the term has sometimes been used to include the capital market as well.) Most narrowly defined, the term could include only the market for the most immediately available form of money itself — currency, and deposit balances at Federal Reserve Banks (that is, "Federal funds"). No doubt there are uses for which each of these definitions might be suitable, but the consensus would fall somewhere between the extremes. It is probably not far from the consensus, and from the usage that is most meaningful in terms of Federal Reserve operations, to define the money market as the active market for money and close money substitutes which financial institutions and others rely upon to provide the liquidity needed in the usual course of their operations. This would not include the bank checking accounts of most individuals or of most business firms; nor would it take in most savings deposits or savings bonds. These, to be sure, represent liquidity to their owners and are so used; but it is in turn the issuers of these liabilities — and the transactions in money and near money by the banks themselves, for example, or the Treasury's cash balances and its short-term market offerings or operations — that come within the rather specialized precincts of the money market.

The market's stock of goods consists of the active margins of bank reserves, and that part of all outstanding credit instruments which the holders believe they can readily liquidate to meet their needs for money and which others would ordinarily be willing to acquire and hold as liquid investments until such time as they too needed "absolute liquidity", that is, money itself. A galaxy of interest rates reflects at all times the net balance of preferences of holders among the different degrees of liquidity provided by the different kinds of instruments generally in use in the money market, on the basis of the supply of each that is currently available.

[3] For a fuller description of the money market as a whole, and of the various instruments mentioned in Section III, see *Money Market Essays*, by Harold V. Roelse and others, published by the Federal Reserve Bank of New York, March 1952 (fourth printing, November 1954).

The very looseness of these elements of a definition should make it obvious that pitfalls abound in any attempt to measure the money market with neat statistical precision. That is partly because there is a variable fringe of money market instruments, determined by the changing attitudes of holders; partly because the double counting of credit claims and underlying "liquid' collateral may be difficult to untangle; and also because the freedom of entry to the money market is, in any practical sense so far as the United States is concerned, quite unlimited. Large business corporations, foreign holders of dollar reserves, States, municipalities, and public authorities, trusts, and pension funds — all these and more have rapidly increased their direct participation in the money market (that is, in the active trading of negotiable or "market" instruments of liquidity) since the end of World War II. These developments have had a very real impact upon the operations of the banking system as well as upon the state of liquidity in the economy. They must be kept in view as daily action is taken to fulfill Federal Reserve policy.

THE SPECIAL PLACE OF THE BANKS

Despite these qualifications, the heart of the money market in any country is in its banks and the apparatus that exists among and around them for maintaining the individual liquidity of each. Maintaining liquidity is not merely a matter for each bank of keeping its primary reserves at all times in line with statutory reserve requirements (or, in some countries, in line with rather rigidly observed conventional "requirements"). To do that in itself is no simple mechanical chore, particularly in a country served by thousands of separate banks, where the accidents of trade, or the incidence of large financial transactions, may result even overnight in a convergence of deposit withdrawals upon any one individual bank so large as to consume a major part (in some cases the larger part) of the balances then being held as required reserves. No bank without a good margin of "secondary liquidity", as well as borrowing privileges at its Federal Reserve Bank or other commercial banks, could survive very long in the face of the wide deposit swings, which often are not predictable, that strike individual banks from day to day or month to month: some due to seasonal factors (crops, holidays, tourists, or tax dates); some representing net shifts of funds among localities or regions; some the result of a divergence even within the same city between the bank-by-bank pattern of the Treasury's tax or borrowing receipts and the pattern of its disbursements; some due to the analogous effects of the receipt and expenditure patterns of giant corporations; and of course many other causes.

But there is more to the typical bank's need for liquidity than the purely operational liquidity needs related to its deposit banking business. In addition, the bank normally husbands some liquid assets that can readily be converted into lendable funds when there are urgent customer needs to be met, in excess of the usual rolling-over of maturing loans or investments into new ones. This margin may be trimmed rather narrow at times, and it will widen at others, for a variety of reasons related to the circumstances of the individual bank and the judgment of its management concerning local or national business conditions. However, most banks will usually have some margin of assets that the management regards as "liquid", which can be drawn upon when the volume of demands or opportunities for new loans or investments becomes irresistible and the bank has no excess reserves to use. For that kind of liquidity, too, the banks depend upon the functioning of the money market, just as do other investors. Thus the money market, in addition to its important task in passing around the residual excesses or deficiencies of reserves related to net shifts of deposits among banks, in order to find a balance, also makes it possible for banks and others to "use" their secondary reserves of liquid assets when they wish to do so. They can use them, of course, only when there are others who will give up cash in order to take them on, and the various money market rates of interest reflect the balancing of these selling and buying influences, too, as they work themselves out in the competitive conditions of the money market.

POINT OF ENTRY FOR THE CENTRAL BANK

It is but a short step from recognition of the money market's role in balancing-out the distribution of bank reserves, and in providing the liquidity needed in the portfolio management of banks and others, to observe that it is also a natural meeting ground for the central bank to come into contact with the financial sectors of the economy as a whole. That is why the money market is the principal zone for the exercise both of the Federal Reserve System's *defensive* and its *dynamic* responsibilities. *Defensively,* the System's job might be seen, when stripped of complicating details, as that of keeping a given volume of reserves in being and helping with the economical distribution of that given total. *Dynamically,* the job is to vary the quantity of reserves (after allowing for seasonal variations) by such amounts, and through such methods, as to make the banking system, and the money market as well, an active force in the economy — promoting growth, resisting depression, and limiting inflation. That means inescapably that the Federal Reserve System, as it varies the volume of bank reserves for policy purposes, will also have some influence of its own upon the cost and availability of credit. Moreover, the Federal Reserve and the Treasury are necessarily market influences because of the large part they must play in determining the supply of secondary reserve assets. Consequently their actions, and expectations concerning them, become a part of the matrix of supply and demand forces that the money market continually is resolving into "going" rates of interest for the various kinds of money market instruments that are soon to be described.

COMPARISONS AND CONTRASTS WITH THE LONDON "MONEY MARKET"

London has long been regarded as the classic money market for domestic needs, for international requirements, and for furnishing the central bank with a suitable milieu in which to exert its influence with reasonable assurance of a prompt, sensitive, and general response. There, the term "money market" is definitely and consciously used in two different senses. One is broad and changing, like the general definition just suggested for use here, and need not be explored in detail. But the other is a narrow and specific meaning, referring to the operations of a group of twelve discount houses which comprise the Discount Market Association, and this deserves some elaboration.

Aside from a few customers carried over as the vestigial remnants of an earlier era, these discount houses, and they alone, borrow at the Bank of England. The rate at which they borrow is known round the world as the "Bank Rate". Subject to the lodgment of acceptable collateral security, each house may borrow at its own initiative, although it must then retain the borrowing for a minimum of seven days, paying a "Bank Rate" that is normally a "penalty rate". In thereby bringing about the creation of bank reserves, the discount houses serve as an adjunct to the Clearing Banks, the large branch banking institutions which serve the entire country. Most of these banks maintain head offices in London where the liquidity standards for each bank are determined and then maintained through the operation of each bank's "money position". The residuals in each bank's daily money position are settled, for the most part, through direct transactions with the discount houses, which become the buffers for bringing the excesses of some banks to the use of banks which are short, or for absorbing the net impact when the banks as a whole are short of funds, or for employing the surplus when the banks on balance have short-term funds to spare. While the effectiveness of Bank of England policy is immediately dependent upon the degree of pressure maintained upon the banking system as a whole, through funding and open market operations, the discount houses provide the medium through which a considerable part of the initial impact of the Bank's action is exerted. It is because these are the main sinews of the London market, and because they can, in relative terms, be so readily identified and observed, that the term "money market" has taken on this very special significance in London.

There is no close working counterpart for the "money market" in this sense in the United States, although some of the arrangements here have been edging toward the London pattern, over the past decade or two, more than is generally recognized (while the London pattern has also been acquiring some of the detailed characteristics of New York). Here, though, borrowing from the central bank is necessary, first of all, as part of a mechanism of *defensive* arrangements that can give each of the thousands of independent unit banks a supplemental source of temporary reserves to help meet the sudden and often unexpected reserve drains that may at any time strike any of them. That is one reason, and a sufficient reason, for giving all member banks in this country direct access to the "discount window" (even though it is an access to be used as a privilege and not a right). The flows between banking offices that create many of the individual bank reserve problems here are, in England, either balanced out within each of the branch systems or settled as net residuals through the money position adjustments made by their principal offices in London. The mechanical side of the problem, when it gets beyond the London City clearings, is relatively small. With the apparatus somewhat less encumbered by problems of mechanics, it is somewhat more sharply exposed to the direct influences of the action taken by the Bank of England in fulfilling its own *dynamic* responsibilities, although there is still a *defensive* job to be done in smoothing out seasonal or other swings in the volume of bank reserves. But it is the channeling of funds released through the "discount window" of the Bank of England to the small group of discount houses, and the Bank's direct transactions with these houses in Treasury bills or other short-term Government securities, along with the great panoply of related operating arrangements in the market that are dependent upon these relationships, which give rise to the special and narrower meaning of the term "money market" in London. Although the nonbank dealers in Government securities are the closest counterpart in the United States to the London discount houses, and although as we shall see the Federal Reserve System has at times advanced funds to these dealers in the form of repurchase agreements, at the System's initiative — and executes a large part of its Government securities transactions with them — the comparison is still too limited to have given rise to any use in this country of the term "money market" to describe these dealers as a group.

THE GOVERNMENT SECURITIES DEALER AS A "BUFFER" FOR THE COMMERCIAL BANKS

The contrast with London does not end with the relations of the central bank to the market. Relations between the commercial banks and the Government securities dealers are also much different here; they vary considerably from bank to bank and from dealer to dealer; and there is no single, cohesive view as to what they should be. But by and large in actual practice, and now apparently much more than in London, one important aspect of the dealer's role in the United States money market is to serve as "buffer of last resort" for the principal banks. Here, the banks' use of the Government securities dealers has the effect, most of the time, of reducing the extent to which the money market banks turn to the "lender of last resort" (that is, the Federal Reserve) for help in meeting the net residual effects which converge upon them from reserve shifts among the banks of the country and from any decided swing in liquidity preference for the country as a whole. One part of the dealer's "buffer" role is his standing readiness to take short-term Government securities in some volume at a reasonable price whenever banks or others are trying to obtain funds on balance by selling them. At the same time, banks that have been lending to the dealer to help carry his previous holdings may find they need funds, and so the "buffer" absorbs pressure from the other side as these lending banks either raise their rate or perhaps call back their loans.

The dealer, in turn, if he is to repay some of his loans and to carry the added portfolio just acquired, must then turn to his own network of contacts with other local banks, out-of-town banks, large corporations, State treasurers, and the like in a determined effort to draw in temporarily idle funds from all over the country. In this way, he supplements what the money market banks presumably have been doing all along to gather and employ the surplus balances of the rest of the country. If the dealer cannot borrow enough, perhaps this will turn out to be a day when the Federal Reserve System sees a temporary need for putting funds in the market, so that it will provide some funds to him through a repurchase agreement; or perhaps the Federal Reserve will buy securities outright for reserve purposes, and the dealer may, if his prices are equal to the best, be able to move off some of his portfolio that way. If the dealer still needs additional financing to pay for his purchases and carry his position, however, he will just have to work himself into balance either by arranging to borrow at the higher New York bank rates or by stepping-up his selling drive and lowering prices further (thus raising the interest rate quoted on his offerings) until he pries loose some buyers somewhere, meanwhile lowering his bid prices still further in order to dissuade anyone else from selling to him. At a price, some New York bank will usually find a way to lend him the last bit that he needs.

In a very meaningful sense, however, the buying and selling of shorter-term Government securities through a specialized dealer market, and the lending apparatus that has evolved to make it possible for these dealers to carry their portfolios, provide the kind of continuous communication between all parts of the national money market that was once made possible in part by the call money market. The elimination of the payment of interest on demand deposits by the Banking Acts of 1933 and 1935, the prohibition of member banks' acting as a medium for the placement of security loans for nonbank lenders by the Banking Act of 1933, the establishment of margin requirements for loans to purchase or carry listed securities under the terms of the Securities Exchange Act of 1934, and the easy money conditions of the later thirties, along with other changes, brought the call money market virtually to an end long before the desk was formally and officially closed at the Stock Exchange in 1946. The new arrangements grew as the old deteriorated, for the economic need continued to keep the centripetal forces of the nation's money machinery directed toward a common center, and reliance upon interbank connections alone (under the statutes and regulations that emerged out of the Great Depression) could not, apparently, fully satisfy the need. Also, the very large body of short-term Government debt created during World War II provided a nearly ideal instrument for the development of a new mechanism.

III. Instruments and Institutions of the Money Market

This is to be a small scale, and somewhat stylized, picture of the principal elements of the money market in the United States at mid-1956. It did not look quite this way a year earlier; it will look still different a year ahead. Recognition of that fact — the inevitability of change in the kinds of paper used, in the arrangements for issuing, trading, and holding these money market instruments, and in the institutions which participate — is more important than any single description of the money market itself. These changes come in response to competitive pressures as the participants seek more efficient and more economical ways of doing their part in that over-all job of the money market which has just been described.

The central bank, to retain its own maximum effectiveness, has to adapt its own procedures to the emerging changes. That is why very few categorical statements can be made about, or any long-run standardization attempted for, the detailed techniques that the central bank should be expected to use. The System's *defensive* aim is to help keep the machinery of the money market working smoothly in distributing and allocating the market's stock in trade within any given period; its *dynamic* aim is to exert through the money market whatever degree of pressure upon bank reserves, liquidity, and the general availability of credit is required for stability without inhibiting sustainable economic growth. The details presented in this pamphlet are important only as they help to show how the particular Federal Reserve market techniques in use at mid-1956 have become necessary in relation to the particular structure and organization of the money market existing today. In this present section there is, first, an introduction to the principal types of instruments in use; second, a description of the major institutions which make up the money market; and, third, a discussion of the key money market rates of interest.

WHAT IS THE "STOCK IN TRADE"?

Several of the money market instruments in the list below would scarcely have been considered for such a list ten, or even five, years before 1956; others have long since passed their heyday and are still included mainly because of their in-and-out marginal significance. Those of most recent prominence are capitalized; those of less significance now than they have been at times in the past are italicized. Each is subsequently described further.

1. Money — Clearing House and FEDERAL FUNDS.
2. Short-term United States Government securities (including Treasury bills).
3. Dealer loans and other dealer financing arrangements — extended by banks and by NONBANKS.
4. Interbank loans and balances.
5. *Commercial paper* and *bankers' acceptances.*
6. Issues of UNITED STATES GOVERNMENT AGENCIES (Federal Intermediate Credit Banks, Federal Land Banks, Federal Home Loan Banks, and others); TEMPORARY HOUSING NOTES; Others.
7. Funds obtained directly from the Federal Reserve:
    a. Bank borrowing at the "discount window".
    b. Repurchase agreements with nonbank Government securities dealers.

1. MONEY. The conventional method of payment used in the country at large (and in the money market as well until a few years ago) is a check drawn on a commercial bank account. Such checks, when drawn on New York banks, are known in the money market as clearing house funds because they do not become "good money" — that is, available funds against which the recipient can in turn draw checks — until they pass on the following business day through the New York Clearing House for collection. In effect, collection takes the form of a credit to the balance held by the recipient's bank of deposit in the Federal Reserve Bank. For checks collected about the country through the Federal Reserve System, the receiving commercial bank is given credit in its reserve account in conformity with a time schedule based mainly on expected collection time (subject to reversal in the event the check proves to be noncollectable). The Federal Reserve's aim, of course, is to reduce the time needed to collect checks so that checks drawn in any part of the country on any other part will be as nearly equal as possible in value (that is, to minimize the loss of the use of funds because they are tied up "in transit"). More efficient processing and more rapid transportation over the life of the Federal Reserve System have greatly shortened the time required for the collection of checks, but the time schedules have been cut even more — from an original maximum collection period of nine calendar days down to a present maximum of two business days, and the number

of two-day collection points is still being studied for possible further reduction. A counterpart of this arrangement is that the schedules for giving automatic credit have not only kept up with, but in some cases have gone ahead of, the best standards of performance, with the result that more money is credited to bankers' balances for checks in process of collection than has been collected through presentation of checks due against the banks on which they were drawn. The difference, known as "float", represents a variable supply of Federal Reserve credit, placed directly into the reserve balances of the banks, and has in recent years become a factor of considerable importance in influencing the day-by-day condition of the money market. We will see more of it again in Section VII below.

There also is some settlement of payments among banks themselves through the use of checks drawn on their reserve accounts or by other authorization to debit or credit the accounts. This is automatic whenever banks in different localities take advantage of the Federal Reserve's wire transfer facilities, because any funds for wire transmission through a Federal Reserve Bank (or Branch) have to come from the sending bank's own reserve account, and the proceeds at the other end automatically flow into the receiving bank's reserve account at the Reserve Bank of destination. By use of the wire transfer facilities and the other means of transferring reserve balances, it is possible for some banks to obtain "Federal Reserve funds" immediately from other banks in order to build up their own reserve balances when it appears that their daily averages for the reserve computation period will fall below requirements (calculated as the average of daily requirements against each day's deposit balances — on a weekly basis for central reserve city and reserve city banks, and semimonthly for country banks). Even before World War II, this had become the principal method of making interbank loans between the large banks on a day-to-day basis, and the rate paid by the borrowing bank to the lending bank for these loans became known as the "Federal funds rate".

Not until the banks, and others closely linked to the money market, had gone through several waves of tightening conditions after World War II did recognition begin to grow of the uses to which Federal funds might be put by others in the money market as well. After all, everyone in that market was engaged in economizing in the use of money. Any delay while awaiting the passage of regular checks through the clearing house meant the possible loss of a day's interest. As short-term rates rose, this "opportunity cost" became even greater. The outcome, by mid-1956, is that the greater part of all transactions of any size in Government securities maturing within a year, and many involving longer securities, are being settled for payment in Federal funds. Moreover, negotiation over the form of settlement, clearing house or Federal funds, has become a factor in most financial transactions, including payment by underwriters for new long-term capital issues. Of course, all Treasury checks drawn on balances held in Federal Reserve Banks can be presented for immediate payment during banking hours, and so these may be treated by their recipients as Federal funds. As a combined result of these and similar developments, the money market has largely shifted over to a Federal funds basis for settlement of a substantial part of its important transactions. In effect, the money market is dealing in two kinds of money — New York Clearing House funds and Federal funds. The Federal funds rate, determined in continuous trading among dealers, banks, and brokers — centered in New York but spreading over networks of contacts maintained by many leading banks in various regions of the country — has become the most nearly reliable of all short-run indicators of the prevailing state of the money market.

2. Short-term Government securities. Among the close money substitutes which serve the money market, Government securities of shorter term had already become much the most important by the end of World War II. But because a large part of them have since become, by mid-1956, virtually impounded in the precautionary reserves of large business corporations, foreign central banks, and others, the proportion of them marginally available for the traditional needs of the money market — settling interbank reserve differences and reconciling shifts in the liquidity preferences of investors — has become smaller and less assured. The commercial banks included in the Treasury survey of debt ownership, for example, hold only about one tenth of the outstanding volume of Treasury bills; Federal Reserve holdings at this writing are less than one twentieth of the supply. By contrast, in the immediate postwar years, 1946-50 inclusive, combined Federal Reserve-commercial bank holdings averaged four fifths of the total supply.

3. Dealer loans — extended by banks and nonbanks. In current parlance, so far as relevance to Federal Reserve operations is concerned, the term "dealer" refers to those firms which, regardless of any other activities they may pursue, regularly "make markets" in United States Government securities. That is, the dealer stands ready to buy from or sell to bona fide investors ("retail customers"), on either side of his posted "bid" and "offer" quotations, reasonable amounts of outstanding marketable issues. He ordinarily buys as a principal for his own position, and sells from it, thereby taking directly the risks involved

in appraising "the market" (the price resulting from the consensus of all current market activity). By far the preponderance of market activity is in the short-term issues, and much of this is in the nature of money market transactions. But, as we have already seen, the dealer is in the money market from two sides: his trading, and the financing of his own portfolio, or "position". Before World War II, dealer borrowing was primarily from the money market banks in New York. Since 1945, and given impetus each time money began to tighten, the dealers have brought into the market as investors (mainly in Treasury bills and certificates) a variety of large business corporations, State treasuries, widely scattered banks, and others; once "educated", many of these investors have also become lenders. They realize that they can employ funds with reasonable safety on a short-term basis by making loans (through a repurchase agreement or "buy-back") for a stipulated period at a stated rate of interest determined by money conditions at the time the loan is made. Risks of market price fluctuation are avoided, and precise scheduling of maturity to coincide with the date of a money need is possible. Typically the rate will be reasonably close to the market rate on Treasury bills. Even if the rate should be no better, or possibly a bit less, than that on a Treasury bill, the other conditions frequently offer more than compensating advantages to the supplier of money.

To the dealer, who has seen a steady rise in bank lending rates in New York — as the banks have moved with market conditions and higher rates on commercial loans to keep their "dealer loan" rates well above the Treasury bill rate, and usually above the average interest yield on the dealer's entire portfolio — it often appears worth while to lose a possible trading transaction in favor of arranging a loan with one of these new postwar customers. At mid-1956, the dealers seem generally to be relying upon the New York and Chicago banks for less than a quarter of their usual borrowing needs, although this is undoubtedly a highly variable proportion from day to day. Out-of-town banks apparently account much of the time for more than the central reserve city banks themselves. And the remainder is apparently obtained from a heterogeneous assortment of corporations, eleemosynary funds, local and State authorities, and even at times from the fiscal agents acting for some of the quasi-Governmental agencies mentioned below. To all, banks and nonbanks alike, the dealer loan and related financing arrangements have become real money-market instruments.

4. Interbank loans and balances. Except for the new importance achieved over the past two or three years by the market for Federal funds,

which has emerged out of the traditional interbank lending process, there have been no changes of major significance to the money market with respect to the use and importance of these instruments over the past decade.

5. Commercial paper and bankers' acceptances. Although both these types of paper have increased considerably from their low volume of the 1930's, neither is more than of occasional marginal significance in the market as of mid-1956. A relatively new form of commercial paper, the directly placed short-term note of major finance companies, accounts for much more than the combined outstanding amount of traditional commercial paper and bankers' acceptances. One dealer accounts for the great bulk of trading in commercial paper, and only four would be considered reasonably active in the market in any size; similarly there are only four active dealers in bankers' acceptances, as of this writing. Both types of paper (apart from that of the leading finance companies) are bought and sold through the dealer market, for the most part, and the dealers in each have demonstrated a greater degree of flexibility in varying their rates with changing money market conditions over the past few years than had been apparent since the thirties. Thus, although relatively small in volume, these two types of paper may be regaining something of their old significance, as their rate variations (changes have been made every few months) come to be viewed as periodic signals of informed market judgment concerning the direction and degree of change in money market rates, which may then be confirmed by the actual trading in these fringe sectors of the market.

Recognizing that the bankers' acceptance was still not obsolete, and might have a greater potential for use in the future, the Federal Reserve System resumed the maintenance of a small position in them from March 31, 1955 onward, having been virtually out of the market for its own account since 1933, except for a short interlude in 1946. At the same time, the System resumed the extension of repurchase agreements in bankers' acceptances.

6. Other instruments. Although many of the quasi-Governmental agencies, such as the Federal Land Banks, the Federal Home Loan Banks, and the Federal Intermediate Credit Banks, have long been borrowers in the short-term or intermediate public market, the volume of their borrowings has increased considerably over the past three or four years. Moreover, several new types of borrowers have been added, including the Banks for Cooperatives (since 1950) and two subdivisions of the Federal National Mortgage Association (beginning in 1955). In addition, the periodic issuance of Temporary Housing Notes, in anticipation of later borrowing by the various groups of local housing authori-

ties brought together for borrowing purposes under the public housing program, has also absorbed funds that were part of the floating supply in the money market. Moreover, within the past two years the various so-called "agencies" have moved out of what was largely a bank market and have been viewed as more and more attractive by business corporations and others. As a result, some of the better known "agency" names, particularly issues with an original maturity of one year or less, have begun to enjoy a fairly active and broad trading market.

7. Funds obtained directly from the Federal Reserve. The use of the "discount window" by member banks is, of course, a privilege that is not to be abused or overused, since no bank should expect to exist on permanently borrowed capital beyond the equity supplied by its own shareholders. Moreover, through some alchemy that defies precise analysis, the combination of the Board of Governors' Regulation A (most recently revised in February 1955), of periodic consultations by the discount officers of the various Federal Reserve Banks with persistent borrowers, and of a genuine reluctance on the part of most banks toward being in debt more than temporarily to the Federal Reserve, the "discount window" is not a loophole in the Federal Reserve System's credit control apparatus. It is instead a safety valve, enabling individual banks to restore their reserves to the required levels when unforeseen losses of funds have created reserve deficiencies, and helping to even out among a succession of borrowing banks the incidence of a general policy that cannot strike all alike when there are so many payments going through each day to alter the distribution of reserves and deposits among the thousands of separate unit banks. When Federal Reserve policy is markedly restrictive, the chance incidence of the impact of the restrictive policies will strike more banks, and the need for borrowing from the Reserve Banks will be for a larger aggregate volume, than when policy is mild and funds may be freely obtainable through the Federal funds market, or otherwise. In effect, borrowing gives the affected bank time both to determine whether or not fundamental changes will have to be made in its own portfolio and to carry out in a reasonably orderly manner any such changes that prove to be necessary. In fact, the larger the total of bank borrowing and the more numerous the borrowing banks, the greater is the presumption, as a rule, that a restrictive credit policy is being widely felt by the banks. Thus the possibility of borrowing by deficient banks is an essential aid to the smooth working of the money mechanism; and the ability to vary the aggregate need for borrowing by member banks is a part of the credit control

apparatus through which the central bank maintains a desired general degree of pressure upon the banking system.

Supplementing the borrowing of the banks, which is always at the initiative of the banks themselves, and which is always granted initially (perhaps with rare exceptions, in circumstances that would have been already discussed with an offending bank), there is an entirely different method of providing funds which the Federal Reserve also may use in smoothing the gyrations of the money market — that is, the repurchase agreement with nonbank Government securities dealers. Under a repurchase agreement, the Federal Reserve acquires securities from a dealer against payment, under a contract which binds the dealer to repurchase the same securities at the same price on or before a stipulated final date, and to pay the Federal Reserve a specified rate of interest over the period that it holds the securities. The repurchase mechanism was used extensively in the 1920's in connection with bankers' acceptances; it has again, as just noted, been revived for occasional use of that type since March 1955. It was also used, though less frequently, for Government securities in earlier years, and has been used in that form with increasing frequency during the recurring periods of relatively tight money since World War II, and particularly when short-lived seasonal swings of large magnitude are caused by some of the other factors affecting the volume of bank reserves.

The negotiations with dealers concerning their possible needs for repurchase agreements have become an important means of measuring the degree of pressure present in the money market — that is, the net effect on the dealers of whatever sales by others they have had to absorb, what they have to borrow, and (often a further separate consideration) how much they need in Federal funds. Repurchases are then made only at the Federal Reserve's initiative, after dealers have shown a genuine residual need, and only if the satisfaction of all or part of this need will help in fulfilling Federal Reserve policy. They are made for maturities of no longer than fifteen days. The securities, valued in each case to provide a nominal margin of protection to the Federal Reserve, can have a remaining term to maturity of no more than fifteen months under current directives of the Federal Open Market Committee. The rate of interest is usually the same as the discount rate of the Federal Reserve Bank of New York. It may be set higher or lower than the discount rate, at the discretion of the Manager of the Federal Open Market Account, under conditions established and periodically reviewed by the Federal Open Market Committee, but it may not be set below the lower of the latest average issuing rate for Treasury bills or the discount rate. Any given repurchase agreement may be terminated virtually without notice at the option of either the Federal Reserve or the dealer, although the Federal Reserve has not found need to use its option, instead generally retaining flexibility by setting a maximum maturity of less than fifteen days. Section VI below will add further to the description of the use of repurchase agreements by the Federal Reserve.

THE MAJOR INSTITUTIONS THAT MAKE UP THE MONEY MARKET

1. THE NEW YORK FINANCIAL CENTER. The center of the money market is in downtown New York City, clustered irregularly around Wall Street, from Church Street and Trinity Place at one end to Pearl Street at the other, extending northward about three or four blocks from Wall and southward perhaps two blocks below Wall. This area bounds the location of the head offices of the ten or fifteen banks which, with their money position officers, their securities trading departments, their networks of telephone connections, and their custody and messenger services, provide the major part of the facilities needed to effect the transfers of money, advices in confirmation of agreements, and the securities themselves, which flow largely on the basis of word-of-mouth agreements over the telephone between men who are known to each other and whose integrity cannot be questioned.

Within this same bounded area is the New York Clearing House, through which the accumulated checks drawn by depositors of any one of these (and a few other smaller member) banks are presented for collection before 10 a. m. each morning. Here, too, are the principal trading offices of practically all of the Government securities dealers, several of whom have other offices scattered across the country, and a few of whom have home offices in Chicago. Here, also, are the brokers in Government securities who run small lot orders (usually by telephone) from dealer to dealer, and the others who maintain desks devoted to locating and placing Federal funds in New York or across the country. Close by are the offices of many of the major insurance companies, other large financial and nonfinancial corporations which have large sums to manage, and a host of other activities dependent in some degree, much of the time, upon the efficient continued performance of the money market. And within this same bounded area are the New York Stock Exchange and the American Stock Exchange. Here are the main offices of the leading stock brokerage firms.

And as an integral part of this same financing center, here are major offices of the principal underwriting firms and "over-the-counter" dealers which handle debt instruments or equities, and play the leading role in scheduling and placing the flow of new capital issues for the country as a whole. Only blocks away are many of the major commodity trading markets in the United States — markets which often also depend upon tapping the funds of the money market in significant volume.

Of course, none of these institutions is entirely engaged in the affairs of the money market, as we have loosely defined it for our use, but all move within its zone of activities; the banks, the Government securities dealers, those who trade in Federal funds or merchandise other forms of short-term credit, and the Federal Reserve Bank of New York as the System's arm inside the bounded zone are at its center. The Treasury is in effect here, too, as principal issuer of short-term money market instruments, but it acts ordinarily from day to day through its own fiscal agent, which (as in most Treasury fiscal matters arising elsewhere in the country) is the Federal Reserve Bank located on the scene.

2. THE BANKS OUTSIDE NEW YORK. The institutions located in New York, of course, among them carry through not only the great volume of financial transactions originating in the City, but also the residual reckonings of the great mass of money payments, on trade and on financial account, which take place throughout the country; but there are many other banks outside New York which often reconcile themselves without ever reaching through to the facilities of the final clearing center in New York. Other leading banks actually comprising a part of the national money market, closely linked not only to New York but to other banks across the country — and particularly to the banks, large or small, in their own region — include perhaps five or six in Chicago; and along the Eastern Seaboard, from Boston down through Philadelphia and the South, there are eight or ten more. These numbers vary, too, with the extent of prevailing pressures; more banks become money market conscious, in a large and meaningful sense, when pressures have been fairly strong and persistent for some time, and the numbers mentioned here are only illustrative. As of mid-1956, by the same general standards, there are probably five or six real money-market banks on the Western Seaboard; perhaps six or seven outside Chicago in the broadly defined Midwest, from the Appalachians to the Rockies; and five or six in the South and Southwest. By and large these are the same banks, practically all located in reserve or central reserve cities,

which were classified by the Treasury as "Class C" depositaries when, on August 1, 1955, it instituted arrangements for making same-day calls on, or redeposits in, a selected group of larger banks, as a means of evening out those wide and often capricious swings in the Treasury's cash balances at the Federal Reserve Banks that had long been a major source of money market disturbance. (See further, Sections VI and VII, below.)[4]

3. THE GOVERNMENT SECURITIES DEALERS — BANKS AND NONBANKS. In addition to these banks, and serving in some respects as adjuncts to them so far as the operations of the money market are concerned, there are the Government securities dealers. Much of what these dealers do, in making markets for Government securities, is to be described in Section IV below; their relations with other markets, and some of the special aspects of their borrowing problems in the money market, are discussed in Section V. At this stage, in taking inventory of the principal institutions in the money market, it is important only to distinguish between the "bank" and the "nonbank" dealers. There is no economic reason, of course, why any commercial bank could not set up within its organization a dealer department, assuming it has the necessary skilled trading personnel and could allocate some part of its resources to carrying the position of its dealer function. But only five of the major banks have done so, on a continuing basis — three in New York and two in Chicago (although the latter also maintain New York offices which their dealer departments use in their operations). There is also another bank in Chicago which usually functions as a dealer, and there are a few other banks located around the country which endeavor to make markets in some Government securities for customers or other banks in their own region. Currently, only the five principal dealer banks are regularly in touch with the Trading Desk at the Federal Reserve Bank of New York on a continuous basis.

These bank dealers generally stand ready to "make markets" in all maturities of Government securities to any bona fide investor, regardless of whether or not he may be a depositor of the bank. By contrast, many other large banks do a substantial "customer business", but that is not done on the basis of quotations continuously maintained by the bank itself. Though these other banks may buy from, or sell directly to, their own customers, they ordinarily rely, both for determining the current quotations and for taking or providing the securities involved, upon the dealer market. The dealer department of the

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[4]For a more comprehensive detailed analysis, see *The Treasury and the Money Market*, by H. C. Carr and others, published by the Federal Reserve Bank of New York, May 1954 (third printing, May 1956).

dealer bank customarily depends upon the bank's own resources for the full amount of the financing needed to carry its position, although some arrangements for repurchase agreements or "buy-backs" with customers do exist. Only two of the banks which have dealer departments also have a regular facility for making loans to nonbank dealers, although the others may occasionally come in to make dealer loans under special circumstances. But most of the other money market banks in New York, and some elsewhere, are lenders of funds to dealers and establish lending rates each day (for renewals and for new money).

Practices vary among banks as to their readiness to lend securities to dealers, whether bank or nonbank, either in connection with short sales or to help effect deliveries when purchased securities are delayed in transit. In general, few banks will lend securities. More banks lend funds than will lend securities, and the aggregate amounts of funds loaned are ordinarily larger. Although there are some exceptions, the banks in New York that lend money to dealers will normally only provide Clearing House funds; but banks outside automatically provide Federal funds when they use the Federal Reserve wire service in transmitting them.

In contrast to the dealer banks, the nonbank dealers depend upon a variety of sources for their borrowed funds; thus, so far as the analogy with London is concerned, it is the nonbank dealer which corresponds more closely with the discount house in that respect. On the buying and selling side, however, it is not considered proper, though perhaps not unknown, for a British discount house to deal in securities longer than five years (jobbers on the stock exchange ordinarily handle anything that is longer), and from that angle the bank dealers in this country may be closer analogues. For, although bank dealers will handle longer maturities, conventionally they prefer to specialize in the under-five-year securities, thus keeping their dealer positions in the same maturity area as their investment portfolios. Of course, some of the nonbank dealers also, for all practical purposes, operate only in the short area, but they are the exception. By coincidence, though, there are, as of mid-1956, just about the same number of active nonbank dealers in Government securities (who, among their other Government securities business, seem prepared to make markets on a regular basis in Treasury bills, the type of security in which Federal Reserve operations currently occur) as there are discount houses in the British market. Although any others are welcome to establish regular contact with the Trading Desk, there are twelve which have actually done business with the Desk (on the basis of competitive bids or offerings) during the first six months of 1956. All have

New York offices, and the distribution of their thirty-two other offices (excluding representatives not considered full branches) is as follows:

City	*Number of offices*
Boston	6
Chicago	5
Cincinnati	1
Cleveland	4
Dallas	1
Los Angeles	1
Philadelphia	4
Pittsburgh	3
St. Louis	2
San Francisco	3
Washington, D. C.	1
West Palm Beach, Florida	1

THE MONEY MARKET RATES OF INTEREST

1. FEDERAL FUNDS. In determining the immediate state of the money market at a given hour on a given day, the interest rate to which one would have to look as of mid-1956 is the "Federal funds rate". If "available" money is generally all in use, that rate will normally be equal to the discount rate of the Federal Reserve Bank of New York which, at the time of writing, is 2¾ per cent. In a tight market, all trading will occur at that rate. With the split-discount rate situation prevailing at mid-1956 (the Minneapolis and San Francisco Federal Reserve Banks have 3 per cent discount rates), there have been times when some trading has occurred at rates above 2¾ per cent, but those have not been frequent. For brief periods at the close of a statement week, when the principal banks may discover that they have made more-than-ample provision for their requirements and will average out with some excess, the Federal funds rate may dip quickly to as low as 2 per cent, or possibly even lower, only to be back up to 2¾ per cent at the opening the next morning with the start of a new statement week. There is no one place where this rate is "made", that is, where all supply and demand come together. Instead, the process is dispersed among one or more brokers who actively bring buyers and sellers of funds together, some of the banks (both in New York and outside)

who either act as brokers or take outright trading positions in Federal funds, and some of the Government securities dealers who obtain or release funds as a by-product of their own trading transactions. While there is rarely any doubt as to the rate at which funds are trading at any given time, there is no fully reliable statistical indicator based upon the volume of transactions occurring at various rates. That paradox — of a rate recently thrust into key importance which cannot be found among the usually published money market indicators — is under special study within the Federal Reserve System at mid-1956.

2. Dealer loan rates. Perhaps next in significance, as an indicator of the degree of strain or ease felt by the various leading money market banks, is the dealer loan rate which each of them (except for some dealer banks) posts each morning, around 11:00 a. m., after appraising the effects of transactions at the Clearing House and all other developments likely to affect the money position on the given day. Referred to, for example, as "3¼ - 3¼", or "3¼ across", a bank's rate means that it will charge 3¼ per cent for renewals of existing loans secured by Government securities and 3¼ per cent for new loans. If posted as "3 - 3¼", the rate means 3 per cent for renewals and 3¼ per cent for new money. Or in some cases, it may appear as "3¼ - 0", which means 3¼ per cent for renewals, but no new money available at any rate. There is not, in the case of any bank, an assurance that large sums will be available at the new money rate; and, of course, the amount a dealer might obtain will depend as well upon his own credit standing and general relationship with each bank. Nor is there any commitment to keep the posted rate unchanged (although some special lending arrangements carry beyond the usual one-day term, or call feature, ordinarily stipulated in dealer loans). A bank which starts with a relatively low posted rate on new money, for example, is quite at liberty to raise that rate during the day, to negotiate some variant of it with a particular dealer, or to cut it off entirely and make no more money available after having kept the rate posted for only a few minutes. One bank in New York, moreover, often posts a "preferential rate" for limited amounts of loans where the collateral is entirely Treasury bills. Thus, it is virtually impossible to compute a single rate to describe the effective lending rate, either for renewals or for new money, at the New York City banks. That difficulty does not alter the fact, however, that in keeping closely aware of the actual rates that are in effect the dealers, and the Federal Reserve as well, can tell a great deal about the way in which the residual money pressures from the rest of the country are coming to rest in New York — whether the City as a whole is losing or gaining funds, and

something about the distribution of ease or pressure among the leading banks. As we shall see in Section VII, regular telephone liaison with the money position officers of the principal banks makes possible a much fuller evaluation of all the forces at work.

In addition to the Federal funds rate and the various dealer loan rates of key New York banks, interest also attaches to the rates at which dealer financing can be obtained out of town: first from banks in Chicago and elsewhere, and then from nonbank sources. This is the sort of information that can only be obtained anecdotally, at the moment of its significance. But aggressive Government securities dealers are always alert to seek out money available in other parts of the country at rates lower than those posted by the New York banks; and, by closely watching their progress, the Trading Desk at the Federal Reserve Bank of New York is usually able to improve its appraisal of the general availability of funds and the extent to which they are being tapped — that is, being brought into the common pool and made an active part of the national money market. For these developments, as well, there is no kind of statistical indicator, but the fact that no data are compiled for the use of students of the money market does not alter the importance of these rates in energizing the functioning of the money market on a truly national scale. Virtually all parts of the monetary machine are presently being kept in sensitive contact with all others through the combined efforts of the banks and others engaged in trading Federal funds, and of the dealers engaged in locating borrowed money at rates below those prevailing in New York.

3. THE OTHER MONEY MARKET RATES. There is no need, presumably, to do more than recapitulate the other money market rates. The keystone of the entire structure is the discount rate of the Federal Reserve Banks. Fluctuating around, though more often below, the dominant discount rate, is the weekly auction rate for Treasury bills. Loosely related to both are the dealer bid and offering rates on bankers' acceptances and on commercial paper, the latter somewhat higher, partly because such paper is usually several months longer in term and does not carry a bank name. Then comes the "one-year" rate on Government securities — that applicable to a new certificate if one were to be offered — and along with that is the whole family of prevailing rates on currently outstanding Governments in the under-five-year area. Rates on the various Government agency issues, bank lending rates on stock exchange collateral (to dealers and to customers), and the somewhat slower moving rate of great significance to quality business borrowers the country over, the "prime rate" of the leading money

market banks — all these are a part of the money market, and a snapshot of a representative group of them, as they looked on June 29, 1956, is given in the following table:

REPRESENTATIVE MONEY MARKET RATES
June 29, 1956

	Per cent
Federal Reserve discount rate	2¾*
Treasury bills – average issuing rate	2.535†
Bankers' acceptances – dealers' offered rate for 1 to 90-day paper	2⅜
Commercial paper – dealers' offered rate for 4 to 6-month paper	3⅜
United States Government security maturing closest to one year	2.56
Federal Intermediate Credit Bank debentures maturing 4/1/57, bid	3.40
Call loans against stock exchange collateral	4
Commercial bank prime loan rate	3¾

*In two districts (San Francisco and Minneapolis) the rate is 3 per cent.
†Issue dated June 28, 1956.

IV. Trading Procedures in the Government Securities Market

Both the problems and the methods of central banking in the United States change with the shifting practices of the banks, dealers, and others who make up the money market. The purchases of bankers' acceptances and the rediscounts of commercial paper which formed the main connection between the money market and the central bank in the World War I era gave way, as more and more Government debt of various maturities was created, to increasing use of United States Government securities. By World War II, it had become a rarity for any bank in the United States to rediscount commercial paper. Direct advances on the collateral of Government securities were much simpler all round, and all banks had some Government securities in their portfolios which could be used as collateral for borrowing. Moreover, as Government securities seemed to fill much of the need for negotiable secondary reserves and bank lending rates were at extremely low levels, the interests of borrowers and of banks in using negotiable commercial paper or bankers' acceptances diminished; the business formerly financed in those forms was more and more handled through commercial loans; and a central bank desiring to absorb or release funds on its own initiative found that purchases and sales of Government securities were simpler and more effective than market purchases and runoffs of bankers' acceptances. As a result, for more than half of its forty-two years, the Federal Reserve System has centered its open market operations in the Government securities market.

Even though Federal Reserve operations on an outright basis are normally confined to Treasury bills (discount obligations of three months or less maturity), it is important to have an introductory view of the Government securities market as a whole at mid-1956, before turning in Sections VI through VIII below to the detailed aspects of the Federal Reserve System's own operating procedures. Much has already been said about the dealers and their present relation to the money market. That will be drawn together and amplified here in briefly answering four questions: Why are dealers necessary? How do they "make markets"? What are the differences among types of securities? What physical arrangements are needed for the prompt fulfillment of transactions? In Section V, more will be said about the dealers' relations with other markets and about the special problems of dealer financing.

WHY ARE DEALERS NECESSARY?

The dealer type of market that has emerged for Government securities in the United States reflects the answer of competitive enterprise, under the conditions of mid-1956, to the need for a mechanism that will bring together all potential buyers and sellers, at any given time, and emerge with prices that come closest to satisfying the interests of all of them. For a long time an effort was made to shift the center of trading in Government securities to the floor of the New York Stock Exchange, and a few bonds are still occasionally traded there, but the facilities provided by the combination of brokers and specialists in a stock exchange never proved adequate to service the large volume and particular interests represented by the greater part of the trading in Government securities.

All of the Government securities dealers are, in a sense, specialists; all buy for and sell from their own positions at prices which they continuously make and revise. But the total trading volume is so great that no one specialist could ever handle it all. Nor would it be practicable to have an array of specialists for each two or three pairings of Government securities — the interrelations among the various prices are too often too close. Consequently, in the Government securities market as contrasted with the Stock Exchange, there is a division of the specialist's labor, and an alteration in form (to include the broker's services as well). With fifteen or twenty quasi-specialists, competitively seeking out all potential buyers and sellers and competitively quoting prices on any of the outstanding Government securities all through the trading day, each potential buyer or seller can be assured of quotations as refined, and "spreads" (between the market bid and offer) as narrow, as the full magnitude of the large volume of trading should be expected to make possible.

There is little doubt, given the consensus on price that develops continuously out of the activity of the dealer market, that a particular holder could, at times, sell directly to an investor with whom he happened to be in contact and, by making use of the prevailing market price, come to a settlement that would satisfy both sides. That does happen. Investors sometimes do short-cut the dealer market, but not regularly and rarely in size. Actually no seller of size, nor any buyer, alert to the vast scale of the potential buying and selling interest customary in Government securities, could feel sure that he was discharging his own obligations properly if he made it a practice to negotiate his own trades with his own circle of contacts whenever possible. He would want to be sure that he was getting as good a price as could be had at that time anywhere in the country. And in order to be sure, he would have to turn to the dealers, whose job it is to keep in contact with actual or potential buyers or sellers across the country, and who inject the added assurance to the customer that they are willing to risk their own capital in trading at these quoted prices. No single buyer or seller could ever know, until he tried, whether the price for the particular amount he had in mind would in fact prove to be the same, or better, or worse, than the currently reported "dealer quote".

The essence of the dealer method of operation is negotiation, to work out a price for a seller that will satisfy him and yet reflect what the dealer knows about the current demand for the particular issue, in amounts of the given size. And anyone experienced in the market will appreciate that, even though quotations are always being given, they only reflect the consensus of judgments among dealers as to the visible supply and demand and current expectations; one order of substantial size (to illustrate, as of mid-1956, perhaps 25 million dollars in bills or 5 million dollars in bonds) could at times change those quotations markedly. Thus, there has come to be nearly universal recognition of the need to rely upon, and function through, the dealers — the firms which make it their business to keep bringing supply and demand together, from all over the country, and which can neither overcharge a customer (because of competition) nor undercharge him (because the risk of loss falls directly upon the dealer's own capital).

There are thus three distinguishing elements in the dealers' unique role: first, the *specialization* in detailed knowledge of the Government securities market, the factors affecting the market, and the holdings and interests of various customers across the country; second, the *stake* of each dealer, trading for his own position; and third, the *competition* among dealers, seeking customers and quick to take advantage of any mistake in judgment revealed by another dealer.

The results of dealer performance through the years have been to provide a market of considerable scope and diversity for Government securities. It is to the interest of the Treasury as issuer of these securities, and of the Federal Reserve as a major buyer and seller of these securities in carrying out credit policy, that such performance continue and improve. For that reason, as well as for the reasons already mentioned in referring to the private buyer or seller of Government securities, both the Treasury and the Federal Reserve confine all of their market transactions for the purchase and sale of outstanding Government securities to the dealer firms which continue, day in and day out, at risk to themselves, to "make markets" in these securities to everyone.

HOW DEALERS "MAKE MARKETS"

The dealers conduct their business in an "over-the-counter" telephone market. While "salesmen" of the various firms have assigned areas (by investor-type or by region or both) which they develop through personal visits in an effort to explain the services offered and to learn more about the needs and the preferences of every potential customer, practically all of the actual transactions are executed "on the wire". Substantial amounts change hands on the basis of oral commitments, often between men who have never seen each other, to be confirmed later through the delivery of purchase or sale advices by the dealer, through the mail or by messenger. That readiness of contact and promptness of execution, made possible by the well-organized use of communication facilities among parties known to each other as established concerns of good credit standing, has equipped the Government securities market to carry out a major part of the job expected of an efficient money market.

There are differences, of course, among dealers in their readiness to enter into transactions on the basis of their routine quotations, depending not only upon the size of the dealer and his current appraisal of market conditions, but also upon those characteristic differences among individuals which are as much a part of "knowing" the Government securities market as they would be in knowing a nation or a city. Any dealer reserves the right to "negotiate" over the price and amount that he will be "good for" for any given issue. Most of the larger dealers publish quotation sheets, giving their bid and offer prices for all Government securities as of the close of business each day. Through continuous minute-to-minute appraisal of market developments, principally as these are reflected through customer inquiries and through the exchange of quotations (called "runs") among dealers, these prices will subsequently be varied up or down throughout the course of the next trading day (10 a.m. to 3:30 p.m. New York time).

Dealer performance will usually be characteristically different for securities of shorter term from that for securities of longer term. Probably because the issues of shorter term are considered more liquid, the magnitude of daily transactions in shorter-term securities ordinarily appears to be many times greater than that in the longer terms, and their prices tend to fluctuate less sharply. In turn, many of the dealers concentrate their efforts at the short end of the list, and almost without exception any of the dealers would be prepared to do business on the wire in much larger magnitudes for the shorter-maturity issues than for intermediate or long-term securities. The amounts vary, generally, in inverse relation to the risks. In Treasury bills, for example, trading is normally conducted in the millions of dollars, and the larger dealers frequently have several transactions in blocks of 5 or 10 million dollars (or even larger) during the course of a single day. By contrast, the customary trading unit in long bonds usually does not exceed one million dollars, and is often less than that in practice.

DIFFERENCES AMONG TYPES OF GOVERNMENT SECURITIES

Treasury bills are generally issued with a three-month maturity and are issued on a discount basis. At present there are at all times thirteen regular issues of Treasury bills outstanding, one issue maturing on Thursday of each week (except for adjustments in the event of a holiday). Bills are sold at sealed-bid auctions, and the time for bidding for each renewal of Treasury bills expires at 1:30 p.m. New York time each Monday. (In the event of a holiday on Monday, the closing time for the auction is customarily brought forward to the next earlier business day, usually the preceding Friday.) Actually, most competitive tenders in New York are not submitted at the Federal Reserve Bank until the last half hour before the bidding closes; many arrive within the last minutes. The close physical proximity of the money market institutions to the Federal Reserve Bank permits the special transmittal of tenders by messenger. Others located some distance away ordinarily submit tenders by mail, telegraph, or through the money market banks (who tender large amounts each week "for customers"). Most of the bidders for small amounts, and many others up to the limit of $200,000 per subscriber, submit noncompetitive tenders which are allotted in full at the average price determined by the accepted competitive tenders (about one sixth to one eighth of the total bill issue each week is currently accounted for by the noncompetitive tenders).

Dealers ordinarily bid for a sizable amount of Treasury bills each week, and subsequently perform the role of distributing the securities to others as demand appears (the combined dealer allotments often run as high as one quarter of the total issue). Because of their key role, dealers of recognized standing are permitted to bid for amounts related to their net worth without making the 2 per cent deposit which the Treasury requires from all others, except commercial banks. In practice, nearly all of the competitive tenders which are not for the account of dealers or money market banks themselves are submitted through the commercial banks, with the banks, in effect, assuming the obligation of the subscriber to pay for any bills allotted on the delivery date.

Each dealer knows at the opening of business on Tuesday morning how many Treasury bills he has been awarded in the latest auction. Since those bills will not have to be picked up and paid for at the Federal Reserve Banks until Thursday, the dealer has two full trading days and part of another in which to sell his "new bills" or to "swap" them against other outstanding bills, for Thursday delivery and payment, before he has to put up any money at all. This additional leverage, as well as the short maturity of Treasury bills, helps to account for the market view that trading in Treasury bills represents as much as one half or more of the dollar volume of all trading in Government securities most of the time.

Certificates of indebtedness are fixed-interest obligations, issued at par, with an original maturity of no more than one year. There is very little difference for all practical purposes between certificates and notes, except that notes have an original maturity of not more than five years or less than one year. Treasury bonds are the long-term debt instrument. There is no specified statutory outer limit on the maturities for which the bonds may be issued, but customarily they are not issued for maturities any shorter than five years, since these maturities are ordinarily reserved for the three other categories of issues already mentioned. Only notes and bonds are eligible under present statutes for direct purchase by the Treasury for sinking fund purposes.

In terms of detailed trading procedures, Treasury bills are quoted in the dealer market on a discount basis, and the quotations, given in terms of percentage yield, are refined to $\frac{1}{100}$ of 1 per cent (or 1 "basis-point"). Thus, the Treasury bill of thirteen-week maturity at the time this is being written is generally quoted in the dealer market at 2.49 per cent bid and 2.46 per cent offered. The spread between the bid and offer quotations represents the dealer's profit margin, in the event that he is fortunate enough to turn over at 2.46 per cent any bills he acquires at 2.49 per cent (on a thirteen-week bill, this 3 basis-point spread would be equal to $75 per million dollars par value of bills traded). Obviously, at times of greater uncertainty concerning the direction of market pressures, the dealer will widen this "spread" in order to protect himself against either acquiring securities at too low a rate of yield (too high a price) or selling them at too high a yield (too low a price) in relation to the prices that may develop shortly as the market reaches a new consensus. The yield spread also widens as Treasury bills near maturity, in order to keep a satisfactory margin in terms of the actual dollars and cents of principal amount being bought or sold.

The same kind of spread is maintained, and the same general principles govern the width of the spread for certificates, notes, and bonds. However, all of these securities are currently quoted on a price basis (although it never needs specifying, it is understood that the prices will in addition include the interest accrued from the last interest-payment date to the date of delivery). For example, the outstanding certificates due in February 1957, bearing a $2\frac{5}{8}$ per cent rate of interest, are being generally quoted by dealers as this is written at 99.31 bid and 100.1 offered. The price actually is straddling "par". The figure after the decimal point does not represent hundredths of a percentage point; it represents thirty-seconds. It is only for convenience in notation that the form shown here is used in the market; it would actually be read as $99\frac{31}{32}$

bid and 100 $\frac{1}{32}$ offered.[5] Similar quotations (although not necessarily with the same spread) would be available from all leading dealers for all other outstanding certificates, Treasury notes, and Treasury bonds. Currently, most dealers would be prepared to do business with investors in these types of securities, at quotations given on the wire, in units of one million dollars (or more in the case of shorter maturities) but that varies with conditions and the issues involved, and at times a particular dealer may reach unflinchingly for amounts of several million dollars, while at other times he would prefer to make no "firm" quotation at all, asking the customer instead to leave the block with him "on an order basis".

As a means of cross-checking the refinement of prices, and thereby enabling dealers to maintain a spread as narrow as the majority would judge to be practicable under the conditions prevailing at any given time, there is a considerable amount of trading among dealers. At times, this interdealer trading has been formalized in so-called "trading agreements", which each dealer would negotiate on a bilateral basis with as many other individual dealers as chose to make such arrangements with him. Under such agreements, each dealer would undertake to do business immediately on the wire, for either the bid or offered side of any security quoted in his run, in "100 bond lots" (that is, 100 bonds of \$1,000 par value each, or \$100,000) with the other dealer — the initiative to rest with either dealer. These transactions usually arise in the course of the customary telephone calls to each other for "runs", giving the list of all current quotations, and either dealer might immediately "snap" any offer or "hit" any bid that appeared to him to be out of line with his judgment of "the current market". Frequently, however, transactions between dealers are negotiated for larger amounts.

From time to time through the years, some dealers have found these formalized arrangements troublesome, believing that they give rise to a large number of relatively small transactions without real significance, particularly at times when one dealer or another may set out to attempt to generate price movements in order to test the strength of the convictions of various dealers concerning prevailing quotations, and possibly to activate investor interest during relatively dull periods. Some of the dealers, who regard this use of trading

[5] Thus, a purchaser of a \$1,000 certificate of this issue on June 12, 1956, when that quotation prevailed, for regular delivery on June 13 would have paid the following:

Principal (100 1/32, the offered price)	\$1,000.31
Accrued interest to June 13	7.19
Total cost	\$1,007.50

agreements as an unnecessary abuse, have actually as of mid-1956 suspended all of their trading agreements with other dealers, although they continue to do business with each other on a negotiated trading basis. A few other dealers are still maintaining trading agreements with each other, however, and all of the dealers are still normally prepared to do business with their "retail customers" in reasonable amounts on the wire at their current quotations.

THE PHYSICAL SIDE OF COMPLETING TRANSACTIONS

To facilitate the execution of transactions in Government securities, all of the leading dealers maintain head offices, or active trading offices, in New York City. As a corollary to this concentration of dealer trading facilities in New York, the bulk of all securities owned by the dealers is physically held in New York, and arrangements are made for their use as collateral in borrowing funds from sources located anywhere in the country.

At mid-1956, after several years of development spurred by somewhat higher short-term rates of interest, a considerable proportion of the business in shorter Government securities is being done for "cash", i. e., for immediate (same-day) delivery and payment — a development which has been made possible only by the physical proximity of the securities to the actual trading offices of the dealer firms, the nearness of each firm to the others, and the efficiency of the wire transfer facilities.

Of course, the dealers in Government securities hold in their own positions only a relatively small fraction of that part of the outstanding marketable Government debt that actually moves through the market in any week, month, or year. A major part of the active portfolios of Government securities held by other investors is also kept physically in New York, under custody arrangements, in order to facilitate prompt delivery in the event that speedy consummation of purchases or sales should at any time be essential. There is still a considerable part of the marketable debt that is actually traded, however, which is held physically at other locations around the country. The facility that makes these securities, as well, virtually a part of the "New York supply" is the "Commissioner of the Public Debt" wire transfer system that is maintained by the Federal Reserve Banks. Through this facility, any seller of Government securities in any part of the country may, by presenting the securities physically at the nearest Federal Reserve Bank or Branch, have the securities transmitted by wire to a buyer who is prepared to receive them at virtually any other Federal

Reserve Bank or Branch.[6] Over 90 per cent of the heavy traffic in securities over the "CPD" wire is between other centers and New York; there is very little switching of securities between other Federal Reserve Banks or Branches. With the same exceptions mentioned in the footnote, Federal Reserve Banks or Branches also make the denominational exchanges (supplying securities in units of $1,000, $10,000, $100,000, or 1 million dollars) which are necessary for the prompt fulfillment of orders of differing size.

The actual handling and transferring of securities, by means of messengers, is largely concentrated in one New York City bank, which serves as "clearing agent" for most of the securities transferred by most of the nonbank dealers. The bank dealers, as a by-product of the large customer business ordinarily done by the other departments of each bank, generally rely upon their own messengers and their own clearance facilities. But the "cages" of the various nonbank dealers — where all accounting records are maintained, purchase and sale confirmations are issued, loans are executed, and instructions for the custody and transfer of securities are prepared — depend heavily upon a close and understanding relationship with this clearing agent. Although some other banks (which are not dealer banks) do a nominal amount of the clearing business for some categories of securities for some dealers, the bulk of the volume, and the impact of a considerable part of any remaining shortage of funds among the dealers near the end of the day, falls upon this one bank. In turn, because it can effect some economies of scale from doing so large a part of the total clearing business, this bank charges reasonable fees which are related to the dollar volume of total transactions.

These physical facilities are important underpinnings for a trading market in Government securities in the United States that can promptly reflect those basic forces of supply, demand, and expectations which affect all credit and capital markets. The unique characteristic of the Government securities market, provided it is competitive and efficient, is its freedom from credit risk; and the reflection of the basic forces through such a market should be somewhat less ambiguous, somewhat less subject to varied interpretations, than the varying prices and rates placed by the market upon different classes (Aaa, Aa, A, for

[6]The Helena Branch of the Federal Reserve Bank of Minneapolis is the only Branch or Bank not participating in this system, and no securities may be transferred *to* the Buffalo Branch of the Federal Reserve Bank of New York. No fees are charged for transferring Treasury bills, certificates, or notes or bonds maturing or called for redemption within one year. The charge for other transfers is $5 for amounts up to $50,000 face amount, and $10 for face amounts of $50,000 and over; in each case, the transfer must be of a single issue to a single recipient.

example) of private credit risks. It probably would have been impossible for the present market facilities to have been energized and refined to the level of efficient performance prevailing at mid-1956 without the driving stimulus provided by the dealers specializing in Government securities.

V. Interrelations Between the Government Securities Market and Other Markets

The various paths of influence running between the action of the central bank and the Government securities market, or in turn the transmission of influences between the Government market and other parts of the capital market, have been the subject of study by able economists for many years. No doubt, changing institutional practices will keep the specific interrelationships at any particular time some distance away from the current classroom "model", just as any observations here on institutional arrangements at mid-1956 may be out of date within a few months or years. But there are two kinds of interrelations that may always be expected to have some significance, and which have not received their share of attention in the past. Without attempting to add in any way to what has already been thought and said on the theory of the rate structure, or of shifting investor preferences as influences upon the differentials between "Governments" and "corporates", or the differentials among "corporates" of differing quality, this section focuses on those two relatively neglected kinds of interconnection with other markets that have a continuing significance in the execution (and to some extent in the formulation) of credit policy. These are: the built-in links, within particular dealer firms, between their activity in the Government securities market and their participation as underwriters or dealers in other markets; and those direct links between the dealers, as borrowers, and the money market, which comprise the dealer loan mechanism.

BUILT-IN LINKS TO OTHER MARKETS

Although no single dealer is large enough to dominate the Government securities market, and although none of the Government securities dealers is a large enough factor in any other market to dominate it, the fact that most Government dealers have important interests in other markets does help to assure a close interrelationship between actual developments in those other markets and the factors that determine dealers' judgments of the Government market.

The bank dealers, of course, might be expected to provide a close link with the various segments of the bank-credit sector. They do, but the operations of the dealer department do not necessarily have to fluctuate in line with the money position of the bank. That would mean alternating between feast and famine, so far as the position of the dealer department is concerned, and would not be conducive to maintaining regular markets. As a rule, though responsive to the major shifts in the money position of the parent bank, and perhaps expected at times to make heroic efforts for investors who are important depositors, the bank dealers come as close to being purely and simply dealers in Government securities as the nonbank dealers. In terms of capital resources and borrowing potential, however, although internal arrangements presumably vary from bank to bank, the bank dealers are a group apart, as may become clearer in a few pages.

Among the nonbank dealers, there presently are three who are also active dealers in bankers' acceptances, making continuous markets within the limits permitted by the available supply of acceptances. Although none of the nonbank dealers specializes in commercial paper, at least one has acted from time to time as a dealer in such paper on an agency basis. Two are members of the New York Stock Exchange. Three are members of the American Stock Exchange. Several are leading dealers in the "over-the-counter" market in unlisted stocks. Seven are dealers in the bonds of States, municipalities, and public authorities, and regularly participate in the syndicates formed to market offerings of such securities as well as making markets in some of them for "over-the-counter" trading. At least ten participate in the dealer selling groups formed by the fiscal agents of the various quasi-Governmental agencies (FICs, FHLBs, etc.) to market original offerings; and most of these, perhaps more actively than most other members of the distributing groups, continue to make good markets in the agency issues in reasonable amounts as long as they remain outstanding. The dealer banks also participate actively in the municipal and agency markets.

Another important area in which some of the Government securities dealer firms also play a significant part is the underwriting of corporate security issues, both fixed-interest-bearing and various classes of equities. Among the four active in this area, at least one is ordinarily among the members of the winning syndicate for nearly every major market offering. These same dealers also maintain "over-the-counter" markets in the bonds which they helped to underwrite, and some of them extend more widely to include most of the outstanding bonds for which there is any frequency of trading. There are also some specialties which one or another has developed. One of the Government dealer firms, for example, is also one of the two most prominent firms interested in underwriting railroad equipment trust issues — taking the lead in forming syndicates to bid and in forming selling groups. Several also specialize in the kind of financial counseling which is such an important by-product of the skills and facilities brought together in firms primarily devoted to the underwriting and marketing of securities — advising potential borrowers on types of offerings, possible amounts, timing, and probable rates, though such managerial service, performed often on a fee basis, would then ordinarily exclude them from participating in the actual underwriting and selling of whatever issue was finally decided upon by the borrower.

Nor is this all. At least six of the Government dealer firms also quote markets in some of the obligations of the International Bank for Reconstruction and Development (mainly those denominated in United States dollars), and several underwrite and trade in the United States dollar bonds of foreign governments. Some also have connections through which they may assist American investors who wish to trade in equities and bonds on foreign markets. And three others, the dealer banks, are among the leading institutions in New York that make good markets in foreign exchange.

There are still other links to other markets; but enough has been said to indicate that, despite the peculiar skills and knowledge that are essential to successful trading in Government securities through the years, these firms have not become so narrowed in their specialization as to lose contact with the significant developments in all other financial markets — as such developments can only be known, intimately and promptly, by direct participants in these other markets. The senior managements which set the broad policy outlines for the various Government dealer firms, bank and nonbank, do so on the basis of tested experience in the rough and tumble of the whole range of financial markets. And whether or not they participate directly in the other markets, all are necessarily in any event obliged to take developments in those markets into account in dealing with customers who may move from one to the other.

THE DEALER LOAN MECHANISM AND THE MONEY MARKET

The outlines of the financing arrangements that have been developed by the nonbank dealers were sketched first in Section II above, and then filled in further in Section III. So far as their general significance at mid-1956 is concerned, in providing a framework designed to activate the dealers as supplemental agents in the task of mobilizing available funds for the money market, enough has already been said. So far as all of this helps to create the kind of national market that will be keenly sensitive to the effects of open market operations carried out by the Federal Reserve System in the dealer market in New York, more of the consequences will be discussed in Sections VI, VII, and VIII to follow. Here attention is focused on some potentially conflicting principles that are imbedded in the present relations between the dealers and their various sources of funds.

The pace of innovation and change in the operating relations between the nonbank dealers and the money market as a whole has been so rapid over the few years before mid-1956 that analysis and appraisal have not been able to keep up with practice. For that reason, rather than attempt any further listing of the details of prevailing procedures — details which might be considerably altered within a year — it may be wiser to try to sort out the main lines that the development seems to be taking. It would appear certain, for the years ahead, that short-term Government securities will continue to be the most important money market instrument, apart from the two forms of money itself, clearing house funds and Federal funds. With that certainty would also go the very great probability that nonbank dealers can be expected to continue, alongside the bank dealers, to play the leading role in assuring ready marketability at competitive prices for these "liquid" Government securities. As a counterpart, the arrangements for financing the nonbank dealers will also, no doubt, continue to be of crucial importance to the functioning of the money market, and "dealer loans" may themselves be expected to continue to be a money market instrument of double-edged significance — a liquid lodgment for short-term funds, and a necessary basis for the effective maintenance of competitive markets in Government securities.

At mid-1956, there appear to be two conflicting paths of development along which the dealer loan mechanism has been evolving with changing money market conditions. Either path is surrounded by implications for the longer-run structure of the money market and for the nature of the job and the responsibility that would devolve upon the large banks that have traditionally been regarded as the "money market banks". One path, the one which has seemed to be the more heavily traveled during recent months, implies a growing reliance upon the nonbank dealers to find the marginal money somewhere in the country that will, in effect, meet much of the net residuals of reserve needs that have been passed along to New York for final settlement as a result of deposit shifts or of a general shortage of reserves. The other path implies a continuance of traditional banking responsibility for locating the marginal funds to balance out the residual reserve needs that are shifted to New York for ultimate settlement. Either path might eventually become the main road; or the market might evolve some lasting way of using and expanding both. It is not with any intention to indicate a preference for one, or the other, or a compromise, but only as a needed final stage in mapping out the terrain in which Federal Reserve operations have to be conducted that these two approaches are described further here.

1. Direct tapping of loanable funds by nonbank dealers, from any type of source, located anywhere in the country. Any effective money market apparatus will always have to function in such a way that dealers are under some compulsion to seek out available funds, wherever they may be. In years gone by, that compulsion mainly took the form of seeking out buyers (and of course sellers, as part of a two-way market facility) who could be interested in outright transactions in Government securities. More recently, as mentioned in Sections II and III, there has been a growing tendency to convert some part of that investor market into a source of funds to finance positions, using established direct trading contacts with out-of-town banks, and with business corporations, States and municipalities, and others, to arrange financing through the form of repurchase agreements.

Having taken the initiative in "educating" their investor customers to the alternative of repurchase agreements, the nonbank dealers now find a genuine and continuing, though fluctuating, demand for this kind of accommodation. For a few days, or a few weeks, the "lender" can employ short-term funds at a contractual rate of interest. This provides much more return than could be imputed to the goodwill derived from keeping a noninterest-bearing demand deposit at his bank. The agreed rate might even at times be higher than that on a Treasury bill with a comparable number of days left to run. Moreover, in ordinary circumstances the supplier of funds is relieved of the risks of fluctuation in market prices; at the conclusion of the contract he simply returns the securities taken on repurchase agreement and receives in return the amount he originally advanced, plus the agreed interest. And he can usually pick his day of maturity, so that he need not be tied to a Thursday, the day that Treasury bills mature, or to the maturity date of other Treasury securities.

The dealer, on his side, though perhaps troubled at times over the thought that he is doing less outright trading business with these customers (the type of business upon which his special skills had all been focused in the past), is nonetheless able as a rule to obtain a major part of his needed financing in this way, and usually at rates of interest considerably below those charged by the money market banks that make dealer loans. He is often able to arrange for ready substitution of collateral — taking out of the repurchase agreement collateral any securities he has been able to sell, and putting back something he has just purchased, or has had out on some other loan. While the dealer may have to give the supplier of funds an option to call all or part at any time, and may not be able to get quite the same flexibility for himself to vary the amount to suit his own situation, he often finds that the other party to the repurchase agreement is rather indifferent to any provision of margin (i.e., market value of collateral higher than the amount of the repurchase agreement) so that very little of the dealer's own capital has to be tied up in such arrangements and his borrowing "leverage" becomes quite high. Thus, on balance, while he might still have preferred to do his borrowing at the money market banks and to concentrate his market contacts on the actual trading of securities for outright purchase and sale, the dealer finds the inducement of competitive costs sending him out to scour the country for funds.

The inducement to dealers for finding "outside" funds has been fairly strong over most of the past two years; but at times of peak money market tightness, when the economic need has been for a maximum effort to mobilize existing funds, the characteristic reaction of the money market banks has been for each to raise its dealer loan rate promptly and at times considerably, thereby giving the dealers an added spur to find funds, wherever they might be. When those funds come in, to provide the needed balance for each dealer's own position, they also ordinarily result in an availability of reserves at some New York bank, which is thereby, in turn, relieved of some of the pressure that the money market is being called upon to meet. (This is an abbreviated version of a host of complex, interrelated money flows, some in, some out, and some merely transfers among deposits held in New York all along.) Thus, although each bank might at the same time be engaged in many other kinds of effort to locate funds and restore its own reserve position, and even though in the end some part of the dealers' needs might be met by the New York banks at their higher rates, the functioning of the apparatus has been such that the dealers have pushed their varied ingenuities to the limit in an effort to borrow funds all over the country. That has had the effect, too, of broadening out noticeably the distribution of the pressure on bank reserves to many parts of the country that might not otherwise have been as directly exposed to it.

The deeper question, of course, which can probably be answered only by the market itself as it develops over the years ahead, is whether this kind of structure is best suited, not only to the day-by-day fulfillment of the money market's job and to maintaining a nation-wide diffusion of money market influences that will assure a fairly sensitive response to Federal Reserve action affecting the volume of funds, but also to providing the kind of shock-resistant financial arrangements that are needed in periods of crisis.

2. Direct tapping of loanable funds by money market banks, from all sources and localities, with some lending to dealers on a preferential basis. The recent market developments more nearly in line with past patterns of money market adjustment have been the spreading networks of bank contacts in the Federal funds market. One Wall Street brokerage firm has for years maintained a sort of clearing desk, bringing "buyers" and "sellers" of Federal funds together and keeping the bid and offer quotations in line with the shifting availabilities and demands, but it appears at mid-1956 that the gross volume of transactions may have grown beyond the capacity of any one existing facility. While that brokerage firm continues to have an important place in the market, bank after bank, over the preceding few years, has become active as a broker (or in a limited sense as a dealer) in Federal funds. Although all are parts of the same broad market, with a fair uniformity in quotations among them all at any given time, these various newer elements in the Federal funds market are clearly still finding themselves, in the midst of a stage of rapid adjustment and growth, as this booklet is being written.

Several of the banks, not only in New York but also in other key cities, have taken on an aggressive program, contacting banks (and reportedly at times other sources or users as well) within their own regions, or across the country, to canvass the extent of the supply or the intensity of the demand during the course of every day. For the most part, these banks then buy up the funds they find available, taking them into their own reserve positions. In turn, within the limits permitted by their own reserve situations, they will also sell funds to those contacts that have indicated a need, perhaps including sales of funds to Government securities dealers or other financial institutions in need of Federal funds to make payments on that day. Banks operating on a regional basis will then dispose of any excess, or make good any deficiency, through transactions effected directly in the New York market in Federal funds.

Thus, in a new environment in which trading for "today's" money against "tomorrow's" money has become a large-scale operation, all of the major money market banks in New York City have become active to some degree in buying and selling Federal funds. The crisscrossing network of relations thus maintained through the correspondent banking connections of these banks, and between the New York banks and other financial institutions acquiring or using Federal funds for payment purposes in New York, has also done a great deal by mid-1956 toward binding all parts of the financial mechanism of the country together and keeping it marginally sensitive to those changes brought about in the availability of Federal funds by the action of the Federal Reserve System.

There are two aspects of the growing importance of Federal funds that have special significance for the Government securities dealers. One is that some part of the money that dealers might themselves be seeking, as they search over the country for funds, is being funneled instead directly into the bank segment of the Federal funds market. That would apply particularly to funds which the holder expects to retain only for a few days, and at periods when the Federal funds rate is remaining consistently close to or at the discount rate. The other aspect of significance is that at least one of the New York money market banks, whenever it finds itself able to keep its position somewhat ahead, on balance (and this may be wholly or partly the result of Federal funds transactions), shows some readiness to lend at relatively more favorable terms, though not often in large amounts, to the nonbank dealers. Usually, this takes the form of a preferential lending rate to dealers on the collateral of Treasury bills. This special type of loan is ordinarily made in Federal funds rather than in clearing house funds. At times other New York banks make call loans to the dealers in Federal funds. When money is tight, and particularly where week ends are involved, this is of more value to a dealer than a preferential rate on a loan in clearing house funds. That is true because so large a part of the settlements for Government securities have come to be made as a matter of course in Federal funds, and, if a dealer receiving a delivery against payment in Federal funds can borrow only in clearing house funds, he will then face the additional expense of buying the Federal funds with which to make payment. (Whether or not he may later be able to reverse that, by repaying his bank loan in clearing house funds and selling the Federal funds for the one day interval, thereby offsetting all or part of the double expense, there is usually little question that a loan initially made in Federal funds is to be preferred, and will probably prove in the end to be cheaper all around.)

There has not yet, by mid-1956, been any evidence, however, of a disposition on the part of the New York banks to extend preferential arrangements on any sort of systematic basis, comparable to the British arrangement where the banks supply a part of dealers' continuing needs at a preferential rate and may apply variable daily rates (related to swings in the money position) to dealer borrowings above the more-or-less assured part of "the line". Nor is there any reason why one should necessarily expect such an outcome. But it does appear that one of the factors that has played a large part in impelling the dealers to do as much as possible of their borrowing away from the New York banks — that is, the continuance of long-standing "normal" arrangements for lending to dealers in clearing house funds — may be in process of change. Perhaps, with the growing participation of the banks in the Federal funds market — a type of operation for which their established facilities and skills are well adapted — the emphasis is shifting. Perhaps there may at some stage ahead be a growing dependence of a continuous kind by the nonbank dealers upon the money market banks. Perhaps those banks, in turn, have found, through the payment of a rate for the "purchase" of Federal funds, a partial substitute for the drawing power of interest payments on demand deposits which, until they were prohibited, were an important means of attracting funds to the banks at the money centers. Perhaps the banks themselves will be taking over a greater part of the initiative for locating the funds needed to keep the money market as a whole in balance, within the general framework of tightness or ease that may be intended at any particular time by Federal Reserve policy. However, whether the banks can, or should, effectively compete with the dealers in attracting Federal funds from nonbank sources is indeed a question.

There are at least some parts of this second path, or approach, visible and in use at mid-1956. Whether it will broaden out, paralleling the first, with a minimum of conflict or confusion in market procedures, or whether one or the other will become the dominant pattern for the money market as a whole, will have to depend on the preferences emerging from the mass of independent actions taking place in the market itself. But both paths have become sufficiently important for the Federal Reserve to devote real effort to learning all it can from observing the traffic over both, in attempting to fit its operating techniques as closely as possible to the important forces actually at work in the continuously changing markets for money and for Government securities in the United States.

VI. What the "Trading Desk" Does— A General Survey

The "Trading Desk" is the operating arm of the Federal Open Market Committee. All transactions consciously undertaken by the System in the money market or the Government securities market, at its own initiative, to carry out its responsibilities, are executed by the Trading Desk. Known formally as the Securities Department of the Federal Reserve Bank of New York, the Desk has no direct part in policy formation; it simply carries out the instructions of the Federal Open Market Committee. Consequently, as stressed at the beginning of this booklet, there will be no consideration of policy formation here. Given the policy (and more will be said on the communication of that policy in Section IX), what does the Trading Desk do?

As the prerequisite to everything else, the Desk must bring together every kind of available information on the current state of bank reserves and the money market. The effectiveness of Federal Reserve policy, and the steps that must be decided upon each day to reinforce or maintain that effectiveness, depend upon an accurate determination and appraisal of what is currently going on. Most immediately, then, the Trading Desk has to serve as an observation post, gathering and coordinating the evidence that should make it possible to decide whether action is needed to carry out the instructions of the Federal Open Market Committee, either for the *defensive* job of keeping the mechanics of the money market working smoothly, or for the *dynamic* job of creating the intended degree of pressure in the money market as a whole.

The duties of the Desk as an observation post do not stop there. They also include continuous reporting and appraisal of conditions in the money and capital markets for the Federal Open Market Committee, providing a part of the great range of data and analyses that form the raw materials used by the Committee in those frequent evaluations of the general money and credit situation which underlie its equally frequent considerations of appropriate current policy. In addition, because the United States Treasury customarily utilizes the facilities of established Federal Reserve Banks or Branches to conduct as much as practicable of any fiscal agency business — for reasons of economy as well as coordination — the Trading Desk has customarily served as the eyes and ears of the Treasury in the Government securities market and related markets.

Challenging as it is, the observation post assignment is only the first of four broad categories of the Trading Desk's work; all are, however, so closely interrelated that any officer of the function might find it difficult to explain, if asked at any particular moment, which one was currently occupying his attention. The second is the actual trading itself, including maintaining high standards of business performance in relationships with the dealer market in Government securities as well as with the dealer market in bankers' acceptances, and executing occasional transactions in other markets for other accounts. This also includes maintenance of all accounting records for the System Open Market Account, and "participating" the Account among the twelve Federal Reserve Banks, as directed by the Committee. The third is a wide variety of ancillary duties: some (such as investments for foreign central banks) are carried out by the Trading Desk to assure coordination with the steps being taken to implement Federal Reserve policy; some (such as the actual processing of subscriptions for Treasury cash issues) are carried out by the Department in order to make further use of facilities or skills already necessarily developed at the Desk; and some (like this booklet) to help provide a basis for public information on operations and procedures. Fourth is the keystone, the actual decision-making inherent in the execution of policy on the operating level, which includes constant communication with members of the Federal Open Market Committee and the staff of the Board of Governors in Washington, preparation of voluminous written reports on all aspects of actions actually taken, and, as a corollary, the rendering of advice when requested concerning possible market developments ahead (or, in the case of the Treasury, serving as technical consultants in the determination of the detailed terms of market offerings).

More substantive detail on all of these parts of the Trading Desk's work is given in Sections VII, VIII, and IX. As an aid in perspective here, it may be helpful to take a look first at the organization of the Securities Department and its interconnections with the other departments of the Federal Reserve Bank of New York. After that, to illustrate the way in which observation, action, and reporting are combined, there will be a quick view of a day's work at the Trading Desk.

THE ORGANIZATION OF THE SECURITIES DEPARTMENT WITHIN THE BANK

Like the changing markets with which it deals, the organization of the Trading Desk and its related functions does not stand still. As of mid-1956, however, the Securities Department is divided into two divisions, one (the Bill Division) devoted entirely to all aspects of buying and accounting for bankers' acceptances, and the other (the Securities Division) containing everything else, including a "Purchase and Sale" Section, located physically in an enclosed Trading Room, and consisting of all members of the staff who execute market transactions in Government securities.

This Trading Room, and its U-shaped Trading Desk equipped with telephone turrets for each of the traders and each of the officers, is the nerve center of all activity. A large quotation board, across the wall at the open end of the U, is kept continuously filled with the current quotations of a representative group of leading dealers for all Government securities, along with a composite quotation for each issue representing the consensus among these quotations, on the basis of the individual dealer "runs" (and of the Trading Desk's practically continuous conversations with the traders on the desks at the other active dealer firms as to the going bid and offer prices). The same board is kept currently posted with a variety of other information to give at a glance, as nearly as possible, a picture of the existing state of the money market, the Government securities market, and other financial markets.

In charge of the full range of activities in the Department is a Vice President of the Federal Reserve Bank of New York, who has also, customarily, been selected by the directors of the Bank and approved by the Federal Open Market Committee as Manager of the System Open Market Account. The Manager of the Account reports directly to the Committee and its Washington staff concerning market developments and actual operations, as well as to the President of the New York Bank, who also has always been one of the twelve members of the Federal Open Market Committee (the Federal Reserve Act was amended July 7, 1942, to make the President or the First Vice President of the New York Bank a statutory member of the Committee. To assure continuous exercise of the decision-making responsibility by an experienced officer of senior standing, within the operating scope marked out for the Manager by the Federal Open Market Committee, the First Vice President has for some years acted as the Manager's alternate in his absence; in the absence of both, the President would ordinarily be immediately responsible.

At the time of this writing, there are four junior officers serving under the Vice President-Manager. One, an Assistant Vice President, is essentially an intermediary and coordinator, to supervise on the scene, on behalf of the Vice President-Manager, the execution of detailed duties distributed among the three other junior officers. These latter, in conformity with customary Bank nomenclature, have each been designated "Manager, Securities Department", a title easily confused with that of the senior officer in charge, the Vice President and Manager of the System Account. As a further indication of the approximate zones of responsibility assigned to each of these three "Managers", informal designations have been used as follows: (1) Manager, Trading and Markets; (2) Manager, Market Liaison and Administration; and (3) Manager, Reports and Analysis. Due to the need for continuous coverage in all zones, however, each of the three serves as first or second alternate to the others; and all are expected to keep informed currently concerning all aspects of the Department's work.

The Vice President of the Securities Department, like all other Vice Presidents of the Bank, is a member of the Officers Council consisting of all senior officers, meeting periodically with the President of the Bank to take up all general questions of policy and operations that would have a bearing on the unified performance of all aspects of the Federal Reserve System's responsibilities that are carried out through the Federal Reserve Bank of New York. Here, and in other committees within the Bank, such as the Discount Committee, and informal committees on relations with foreign central banks, and on current credit policy, the Vice President regularly has an opportunity to review and appraise those day-to-day problems arising from the interrelations between open market operations and other Federal Reserve operations (such as check collections, currency movements, discounts, foreign and international operations, etc.) that exert effects on bank reserves.

In addition to all of these top-level operating relationships outside the Department itself, there are also routine arrangements for close coordination with the fiscal activities of the United States Treasury, not only as regards the management of the public debt and the purchase or sale of outstanding Government securities in the market for various Governmental accounts, but also in connection with the daily management of the Treasury's cash balance. As a matter of operating practice, the Vice President serves as an adviser to the Treasury at the time when decisions are being reached with respect to the precise formulation of the offering terms and all other details related to the issuance of Government securities. Insofar as the physical aspects of issuance are concerned, the Securities Department is directly responsible for receiving (and where necessary "policing") and processing all subscriptions to issues of marketable Government securities offered for cash (including the weekly auctions of Treasury bills). New issues offered on an exchange basis, against presentation of other maturing securities in payment, are processed in another department of the Bank, known as the Government Bond Department. In all events, cash or exchange subscriptions received at the Federal Reserve Bank of New York (including those forwarded from its Buffalo Branch) are only those submitted directly in the Second Federal Reserve District; all other Federal Reserve Banks and their Branches have their own arrangements for handling cash or exchange subscriptions. The over-all compilation of results and the administrative control over all details of issuance are handled by the Treasury Department in Washington, subject to the immediate supervision of the Commissioner of the Public Debt under the general direction of the Fiscal Assistant Secretary.

The Government Bond, Safekeeping, and Security Custody Departments of the Bank handle all physical aspects of the delivery and custody of securities bought or sold for the System Account, for Treasury or foreign accounts, or for member bank or other miscellaneous accounts, by the traders located in the Trading Room. And the Government Bond Department is responsible for the actual handling of the calls made by the Treasury against its deposits in commercial bank depositaries, for transfer into its account at the Federal Reserve Bank, although the determination of the amount of all such calls is worked out by the Fiscal Assistant Secretary of the Treasury in consultation with the Vice President or the Assistant Vice President of the Securities Department.

Another department upon which the performance of the Securities Department leans heavily is Research. A major part of the work of the Money Market Section of the Research Department consists of preparing the detailed projections of various factors affecting bank reserves, soon to be discussed, and the materials used by the Securities Department in connection with the daily or twice daily consultations with the Fiscal Assistant Secretary on Treasury calls against its depositaries. The Monetary Economics Section of the Research Department keeps a rotating flow of experienced economists passing through the Trading Room to improve their understanding of the practical problems of open market operations, partly in order to take the lead in preparing drafts of some of the written reports, although these reports must, in the end, bear the imprint of the operating officers of the Department — who alone can articulate the specific grounds on which operating decisions are made. The variety and extent of these reports require an over-all expenditure of effort in writing, however, that is beyond the physical capabilities of the men engaged full time in the actual operations themselves. Daily data on the reserve positions of banks in New York and the country as a whole, and on the Federal funds transactions of New York City banks, are provided by the Financial and Trade Statistics Division of the Research Department. These are some of the ways in which the Research Department gives needed aid, making possible a joint use of personnel that materially strengthens the performance of each department in its own primary role.

A "DAY'S WORK" AT THE TRADING DESK

Apart from the usual paraphernalia of any office routine — mail, the flow of written materials to be digested, the customary personnel problems of office administration, the continuing maintenance of accounting records and processing of "purchase and sale tickets", and comparable duties, which have to be sandwiched in around the edges of the usual tight-fitting schedule — the day's developments ordinarily begin for the officers of the Department at 9:25 a.m., with the arrival of the preliminary figure for the Treasury's balance in the Federal Reserve Banks at the close the previous night. From then until 10:00, experts in the Research Department try to ferret out the causes of any deviation from the previous projection (and at times it might prove to be a deviation of as much as 100 million dollars or more). Meanwhile, the officers go to a room set aside for regular conferences each morning with representatives of dealer firms. Any firm stating that it is functioning as a dealer in Government securities, maintaining primary markets on a nation-wide basis, and which satisfies ordinary standards of credit-worthiness and capacity, is welcome to do business with the Federal Reserve Bank of New York; and, if they wish, representatives may attend a fifteen minute face-to-face conference with the officers, weekly or bi-weekly, to discuss the market in general and any aspect of interest related to the firm's recent operations. The officers understandably, however, limit their remarks to avoid any disclosure to one dealer of information not already generally available to the market. These conferences run until 10:00 each morning, and most of the active dealers in the market participate, generally being represented by senior members of the firm who wish to have a regular opportunity to express, in the allotted brief time every week or every other week, their views on market developments or influences. Additional time is available by appointment if a special situation should require it.

After thus starting the day (often hearing two firms take, in succeeding sessions, sharply contradictory views on the causes of current price changes), some of the officers go directly into the Trading Room to follow the events at the customary 10:00 a.m. opening of the market. Others await a telephone call scheduled at that hour from the Fiscal Assistant Secretary of the Treasury (or his deputy), at the same time absorbing a quick briefing from the Research staff on the prospects for change in the Treasury's balance that day and several days ahead. Then in conversation with the Fiscal Assistant Secretary the analyses of both staffs are compared, the implications discussed, and a decision is reached by the Treasury as to whether or not to take immediate action to call or redeposit money in the forty-three large commercial bank depositaries across the country ("Class C") upon whom immediate calls or redeposits may be made through notices which reach the banks by 11:00 a.m.

By 10:20 a.m., data from original records in the Accounting Department, obtained and processed by the Financial and Trade Statistics Division of the Research Department, and reproduced by the Stenographic Division, arrive giving the reserve balances and reserve requirements of each of the central reserve city banks in New York as of the close of business the preceding day. This also includes the calculated cumulative reserve positions for the statement week, and any borrowings outstanding from the Federal Reserve Bank of New York. Within five or ten minutes this is supplemented by another sheet of data prepared by the same unit in Research, this one tabulating for each of the principal money market banks its purchases of Federal funds on the preceding day (in New York and outside), its sales (in New York and outside), and its net position as a buyer or seller (from New York and outside).

While these data are arriving and being analyzed by the officers, other things are also going on. Just after 10:00 a.m., a preliminary decision is reached on whether to attempt to replace the bankers' acceptances maturing on this particular day, or perhaps to increase the holdings if a supply is available. That is made definite as soon as the Bill (Acceptance) Division has completed its canvass of that market and the officers have analyzed the data just mentioned and the general state of the market in order to determine the direction in which to move on the day in order to fit these operations to the credit policy intentions of the Federal Open Market Committee. At the same time, the staff on the

Trading Desk are busily talking to the various dealer firms to learn, first of all, which way prices are moving in each sector of the Government securities market and for particular issues, which way they are moving in the corporate and municipal securities markets in general, the action of specific recent new issues in the market, and changes in prices of stocks on the exchanges. From that, they probe on to learn what they can of the reasons, because these are the variety of market signals that reflect more sensitively and promptly than any data or projections, however refined, the forces at work at the moment in the credit and capital markets. By 10:45 they begin to obtain reports on the opening quotations in the Federal funds market. By 11:00 a.m. they begin hearing the rates which one New York bank after another has posted for its loans to Government securities dealers. And by that time they may also begin to receive the first inquiries from dealers as to whether or not the System would be willing to consider making some repurchase agreements. Usually at this same time the summary report arrives, indicating the net debit or credit at the New York Clearing House of all its participating member banks and the credit to the Federal Reserve Bank (for the Reserve Bank customarily receives a credit).

The officers may participate in some of the market conversations, but they must be engaged principally in pulling together the implications of all these early signals. And about 10:45 they receive another key item, the projections of all factors expected to be affecting bank reserves, day by day, over the next four statement weeks. The Research staff, in preparing this, would have taken into account the effects of any decision reached by the Treasury with respect to its cash balances at the 10:00 a.m. conversation. Study of these projections, against the background of reservations that grow out of the use of such materials over a long period of time, along with the analysis of the New York banks' reserve situation, and analysis of the variety of all reports coming in from the dealers, prepares the officers to begin at 11:00 a regular daily telephone conversation with a representative of the Washington members of the Federal Open Market Committee (i.e., the seven members of the Board of Governors) and with one of the Federal Reserve Bank Presidents currently serving on the Committee. This conversation, usually lasting fifteen to twenty-five minutes, ordinarily culminates in an outline of the action that the Account Management then deems appropriate for the day. In most instances, however, there will still be enough uncertainties in the developing market conditions, as to whether actual events are confirming or refuting the conditions implied by the projections and data, that alternatives, or various contingencies, would have to be mentioned at the time as still to be resolved by further observation of the market over the next hour, or possibly longer.

During the conversation, the Manager, Trading and Markets, along with all the trading staff, have been continuing the canvass of the market, and transmitting for use in the conversation all current developments. By that time, or earlier on days of clear-cut situations, it might be necessary to go into the market to buy or to sell for System Account. Or by noon the situation might have reached a stage calling for careful consideration of the use of repurchase agreements. Physical delivery problems make it difficult to trade for "cash" delivery after about 12 noon; comparable problems put a virtual closing time of 1:30, with some exceptions, on the negotiation of repurchase agreements. Regular delivery transactions (i.e., next-day delivery and payment) may continue until the agreed market closing hour of 3:30 p.m. Over these various intervals, then, the Account Management is evaluating and deciding what ought to be done. The traders execute the decisions, in the manner and amounts finally determined by the Vice President-Manager operating within the instructions of the Federal Open Market Committee.

Another vital part of the information needed to round out the picture of immediate money market developments is provided by the Manager, Market Liaison and Administration. Beginning shortly after 11:00 a.m., as the "money position" men of the leading banks begin to have a view of their individual reserve situations on the day, this Manager may begin contacting them by telephone; these conversations may be repeated when necessary during the day. The discussions range over the factors currently causing changes in each bank's position, and the courses of action that each expects to follow.

All along, at every stage, there is also an irregular flow of orders arriving for execution, most requiring consideration as to the best method of handling to minimize interference with the System policy then being effected in the market. Such orders come from various Treasury administered trust funds and investment accounts, from foreign central banks and governments and international organizations, and from "country" member banks. Action for these other accounts through the day is helpful in insuring the accuracy or integrity of the various remarks and quotations which the dealers pass along. One level of insurance protection, as far as the Account Management is concerned, comes from the wide variety of the contacts, thereby providing ample opportunity to check one dealer's comments against those of others (without disclosure, of course). But much more meaningful to any dealer is the prospect that he may, by keeping the Trading Desk fully informed, uncover an opportunity to do some outright trading business, and that he must be sure of the quotations he mentions in describing the actual present state of the market, for at any time the "Fed" might be in a position to "do some business" on those quotes.

At 12 noon on Mondays and Thursdays, the officers talk a second time to the Fiscal Assistant Secretary of the Treasury; this time to assist in working out the regularly scheduled calls that are issued with advance notice to any of the classes of depositaries (A, B, or C).[7] On Mondays, regular calls are issued for the following Friday and Monday; on Thursdays, for the following Tuesday, Wednesday, and Thursday. The aim normally, once differences in estimated receipts and expenditures as between the two staffs are reconciled or clarified, is to schedule calls that will come as close as possible to maintaining the Treasury's balance at the Federal Reserve Banks at a constant level. In that way, the money market effects of swings of money into and out of the Treasury's "Fed balance" can be most nearly neutralized. The daily possibility of action on the "Class C" depositaries helps further, of course, by permitting interim adjustments when the projections are not (and often cannot be) accurate with respect to the particular days on which funds will be "collected" out of the Treasury's "Fed balance" by those receiving disbursements or when some of the direct receipts will flow in.

On Mondays, too, the weekly Treasury bill auction occurs. Tenders have to be submitted by 1:30 p.m. New York time; upon receipt they are placed inside locked tin boxes. Tenders are received at all Federal Reserve Banks and at the Treasury, but the largest part of the dollar volume of tenders is received at the New York Bank. The crescendo of interest in the bidding mounts during Monday morning. At the start, dealers usually look toward the market rate on the longest outstanding Treasury bill as a benchmark, add perhaps 5 basis-points (depending on the level of rates — about 2½ per cent as this is written)

[7]These depositaries are classified on the basis of size, and the classifications are periodically reviewed by the Treasury. The most recent review, made as of April 9, 1956, placed into Class A nearly 10,000 of the smaller banks whose Treasury balances (held in what are called Tax and Loan Accounts) were $150,000 or less on that date. Class B includes all bank depositaries whose Tax and Loan Accounts exceeded $150,000 as of April 9, except for the special group of the largest banks, designated Class C. Any bank with *total* deposits of 500 million dollars or more as of the latest detailed report on assets and liabilities to the bank supervisory agencies (which, confusingly enough, is also known as a "call report") is a Class C depositary. As of mid-1956, there are roughly 1,400 banks in Class B and 43 in Class C. The total Tax and Loan balances of banks in each of the three classes, as of June 30, 1956, were 600 million dollars for Class A; 1.8 billion dollars for Class B; and 2.2 billion dollars for Class C. Treasury calls for the transfer of its balances from Class A banks into the Federal Reserve Banks are ordinarily made only once a month, in view of the relatively small size of these balances as distributed among the very large number of banks in this category.

to measure roughly the difference in value of another week to maturity (and of three days until payment date), and begin talking at that level with respect to the probable tender. From then on, the circulation of views begins to spin. Dealers sometimes talk to each other; and they all talk to their banks and customers; the banks talk to others. "Schools" begin to form for higher or lower prices (in order to refine quotations more precisely, and, since Treasury regulations require submission of tenders expressed to three decimal places per $100 face value of bills, the auction discussion always reverts from rate to price). By 1:00 p.m. the pitch usually reaches the fever point; during the next fifteen minutes the bidding either "jells" or "runs" (that is, it either stabilizes, or it becomes susceptible to minute-by-minute changes in one direction, marking up or marking down, as the case may be). By 1:15 p.m., or shortly thereafter, subscribers have decided what to bid, have sealed their bids, and dispatched messengers to reach window number 31 on the first floor of the New York Reserve Bank on time. Rigid formal controls are maintained by the Securities Department jointly with the Auditing Department, assuring that there can be no opportunity for the submission of late tenders by the System or any other bidder and that high standards of accuracy will be maintained.

Through all of that finalizing phase, two key expressions will have been used: the "to be sure" price, and the "stop out" price. The former is meant to be the price at which "customers", who want to be certain of a full allotment, ought to submit tenders. Below that price, depending on the strength of the bidding, prices may string out for as much as 10 or 15 "pennies" (per $1,000 bill) or they may all cluster closely under the "to be sure" price. In indicating his guess on both, the dealer in effect says that he feels that anyone prepared to take auction risks could bid as low as the "stop out" and probably come out with some bills (which would presumably retail later at a price equal to the average or higher). It is information on both of these guesses, the "to be sure" and the "stop out", that the Trading Desk obtains from nearly all of the dealers, minute by minute before the deadline for the tenders is reached, in order to determine the "consensus of the market". It is at that consensus that the Federal Reserve will ordinarily then tender in behalf of foreign and other accounts, as well as for the System Account itself, in the event the System wishes to roll over its maturing holdings. The Federal Reserve System never tenders for bills for cash for its own account; it participates in the bidding only to the extent of submitting an exchange tender for bills already held and maturing.

After the Trading Desk, in its various capacities, has submitted tenders, to be slipped inside the tin boxes before the 1:30 closing along with all the others, an officer of the Department and others — including several representatives of the Auditing Department — withdraw to a designated closed room to open, sort, and list all tenders. The details are then relayed to the Treasury in Washington where the results from the entire country are put together, to determine the lowest price at which a "partial" or "full" allotment will be made, that is, the actual "stop out" price, and to compute the actual average price of accepted tenders. Then allotment notices must be prepared and dispatched for all successful tenders, all tenders are turned over to the auditors for further checking and retention, and a detailed circular summarizing the nation-wide results as prepared by the Treasury and transmitted to all Federal Reserve Banks is cleared through the Publications Division of the Bank for printing and mailing, as part of the succeeding week's offering and tender form.

This procedure in connection with Treasury bills, repeated each week, is a simple version of the much more complicated and detailed routine that is followed by the Department in handling for the Treasury any offering of a marketable security for cash subscription. Exchange offerings, as already mentioned, are handled in the Bank's Government Bond Department. Before and during any Treasury offering of a fixed-interest-bearing obligation, however, the Trading Desk is expected to be alert to advise with respect to the current market situation — since it is never so simple for the Treasury to set its terms "on the market" as might appear from the later statistical record. These occasions are not part of every day's routine; but they occur often enough for the traders to feel it a part of their job to keep checking impressions together, day by day, of the main forces and the minor disturbances actually at work, so that a seasoned judgment may emerge from these combined observations when the Treasury comes in to price an issue.

There has been little mention so far of the variety of reports prepared on all aspects of operations, during the day, at the end of the day, at the end of the week, before each meeting of the Federal Open Market Committee, and for special purposes. These and other aspects of the day's work may properly be reserved for the next three sections of this booklet.

VII. The Use of "Projections" and the "Feel" of the Market

We come now to what is much of the time the most challenging, and on occasion the most exasperating, aspect of a Trading Desk assignment — facing every day, year in and year out, the urgent need to provide, before all the retroactive data of the statistical indicators are in, quick operational answers to these questions: What is the situation now? Has the day come, has the moment come, to take some action in further fulfillment of the Federal Open Market Committee's instructions? In retrospect it may often appear, in glancing back over a period of Federal Reserve purchases or of sales, that so long as round amounts of several hundred millions of reserves were provided in one period, or withdrawn in another, the particular timing on one day as against another, or even in one week as against another, should have been of no particular consequence. But that would be to forget the perpetual, and unfortunately inescapable, need to keep all aspects of *defensive* and *dynamic* policy working together as one piece, not merely to harmonize their effects on the dollar magnitudes of bank reserves, but also to adapt specific action at any time to the prevailing psychology of the market.

On every day there are actual, or incipient, or threatened problems of mechanics that must be watched, and where necessary resolved, so that the pressures emerging, more or less consistently from day to day, will be as close as possible to those intended by the over-all goals of current credit policy. Otherwise, such routine factors in the payments process as float, or movements of currency into circulation, or back again, may bring about changes of several hundred million dollars in bank reserves within a day or two; and changes in just such magnitudes, as their effects reach through to the money market, become the determining marginal influence, capable of swinging the day-by-day availabilities of bank reserves and credit from the conditions characteristic of restraint to those of ease.

To be sure, a certain amount of buffeting of the market from side to side is unavoidable, regardless of the Federal Reserve's best efforts; and clearly identifiable distorting influences of a short-run character should not be expected in any event to launch many false hopes or fears in the market before swinging back the other way. But to the individual institution, few of these temporary distortions are promptly identifiable in meaningful magnitudes, so far as its own situation is concerned. And expectations, even for the market as a whole, often emerge into a dominating over-all influence on the basis of only a very few days of "feeling easy" or "feeling tight". There are, of course, some notable exceptions, such as the days just preceding a Treasury tax date when excesses of funds may be taken in stride, if the Treasury's Federal Reserve balance has been allowed to run down, and just following the tax date when a pinch is often expected as the direct inflow to the Treasury's "Fed balance" zooms faster and further than can be closely controlled. Much of the time, though, there is something happening mechanically, in ways that no one bank or investor could be expected to see, either to keep the money market swinging dizzily from side to side or to keep it for a significant time deceptively easier (or tighter) than general credit policy would intend. The fact that some of that gyrating or deviating occurs even after the Federal Reserve System has taken offsetting action only underlines the need for the Trading Desk to make thorough appraisals every day of the bank reserve situation, and of the credit conditions and psychology related to it, in order to limit what it cannot avoid.

These appraisals start first by using a distilled version of all that can be derived from the experience on comparable days in previous years, both from data on what happened and from impressions recorded at the time, as modified by any deviations that have recently appeared between the past record and the current results. These are the "projections", prepared by the technical staff of the Money Market Section of the Research Department, which we will want to look at more closely in a moment. Alerted by these projections to the most probable pattern of developments, the Account Management then devotes itself, in effect, to putting together everything that can be observed in the market itself, in order to reach a judgment as to whether today's projection is actually coming true. There is no better description for this process than "getting the feel" of the market. It is the combination of both, the projections as modified or confirmed by the "feel", which provides the basis for deciding what action, if any, is to be taken in carrying out the instructions of the Federal Open Market Committee.

THE PREPARATION AND USE OF "PROJECTIONS"

There is a needed place at the policy level for long-range as well as short-range projections of member bank reserve positions; but in operations, apart from some of the known seasonal influences that must be taken into consideration several months ahead, projections for each day in the next four statement weeks generally suffice. These are all put together on a single "spread sheet" (of which photostats are then sent to most members of the Board of Governors and Federal Reserve Bank Presidents) for delivery to the Account Management by 10:45 each morning. At the same time, because the cross-checking provided by two staffs working independently and following different methods is indeed indispensable, comparable projections, though not as detailed day by day, are prepared by the staff of the Board of Governors in Washington. All of the major factors affecting bank reserves are grouped into a few categories, in order to bring into focus those changes of major magnitude that might have a pronounced influence on the money market. The variations that actually took place over the last half of 1955 in some of the major factors for which projections have to be prepared are shown in Chart 1 on page 67. That chart, however, smooths out much of the problem on individual days, since it consists of weekly averages. A further illustration, indicating the range of day-by-day variation in these factors for an actual but undated four-week interval, is shown in Chart 2 on page 68.

Underlying each of these principal categories, of course, there are many other details, both as to particular components and as to regional distribution, which have to be taken into account. To illustrate the nature of the complexities, however, it should suffice to discuss briefly the five principal categories: float, currency, Treasury balance, gold and foreign account, and required reserves.[8]

1. FLOAT. As already explained, float arises as a mechanical by-product of the check-clearing process. It represents the difference between the two categories shown on regularly published Federal Reserve statements as "uncollected cash items" and "deferred availability cash items". There is always a volume of checks that have been in the collection process longer than provided for in the time schedule, and on which the Federal Reserve Banks have credited the payee bank although collection has not yet been made from the payor bank. That difference always emerges in favor of the banks, by some amount. Should the schedules be so arranged that the difference always came out "against" the commercial banks, some day-by-day variation in the amount of the difference would still remain. And it is the variability of float that creates the mechanical problems with which we are concerned here.

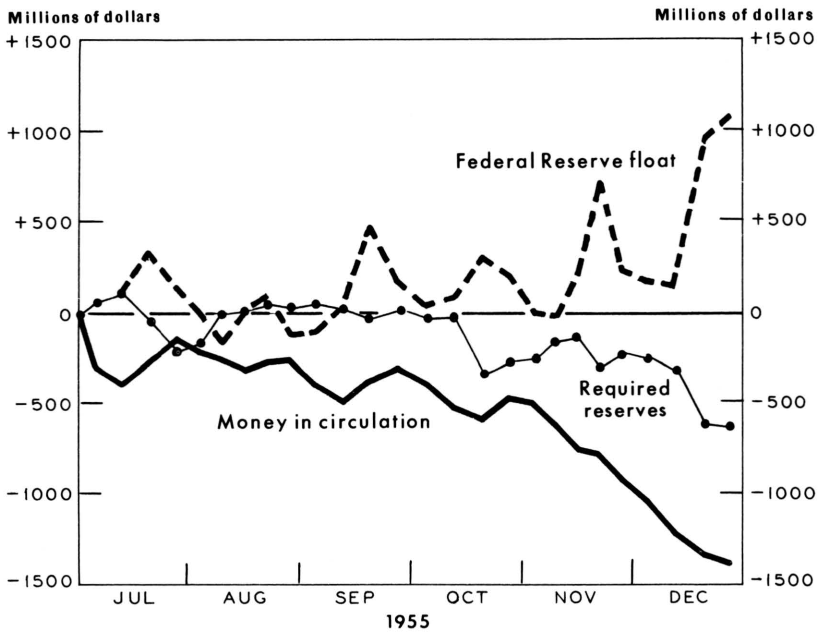
In operating practice, it is useful to distinguish three basic reasons for float: (1) In the case of some checks it is physically impossible for the Reserve Bank

[8] For a more detailed description of these factors see *Bank Reserves, Some Major Factors Affecting Them,* by Irving M. Auerbach and others, published by the Federal Reserve Bank of New York, November 1953 (second printing, August 1954). The Treasury is also the subject of a separate publication. See footnote on p. 28.

Chart 1

WEEKLY CHANGES IN SELECTED OPERATING FACTORS AFFECTING LEVEL OF EXCESS RESERVES *

(+) or (–) indicates effect on excess reserves

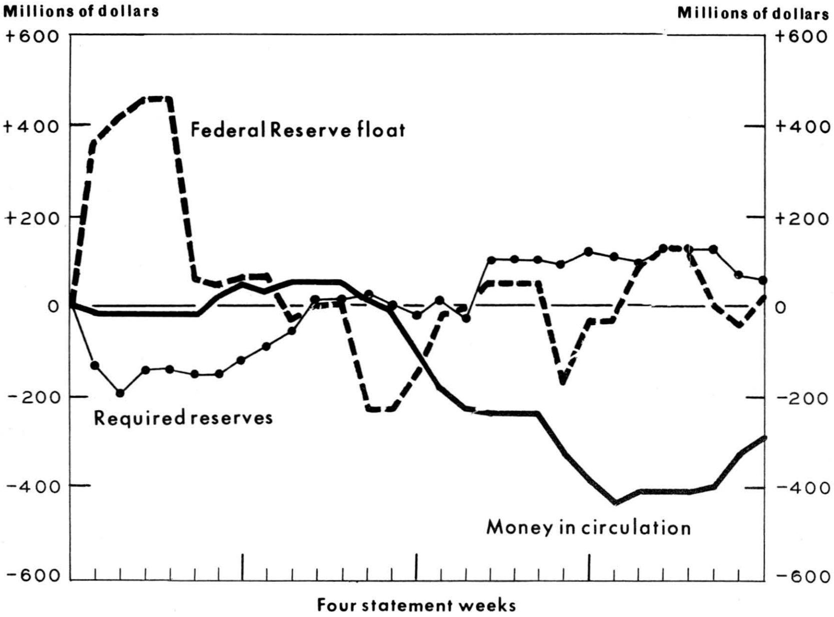


* Cumulative changes in daily averages for statement weeks July 6 through December 28, 1955.

Chart 2

DAILY CHANGES IN SELECTED OPERATING FACTORS AFFECTING LEVEL OF EXCESS RESERVES FOR FOUR-WEEK INTERVAL IN 1955*

(+) or (-) indicates effect on excess reserves



* Daily changes cumulated from beginning of period.

to collect the checks within the period prescribed in the time schedule for crediting the depositing bank. For example, the time schedule calls for a maximum deferment of two days, yet it is impossible for the Federal Reserve Bank of New York to collect within that period through the normal collection channels a check drawn, for instance, on a bank in Winnemucca, Nevada. This kind of float is sometimes called "time schedule float". (2) Even though a check may ordinarily be collected within the period specified in the time schedule, there may in some circumstances be transportation delays. For example, foggy weather may delay airplane schedules. This is "delays-in-transit float". (3) The Reserve Bank may at times be unable within its own Check Department to handle and dispose of the checks it receives within the normal time allowed for processing. Illness of employees, holidays, the receipt of an extraordinary amount of checks on a particular day, all are causes for delay. This is called "holdover float". The hard core of the float variability is a by-product of the physical fact that the total amount of checks written is not the same from day to day, and the transportation and handling facilities for moving these checks around cannot always perform in an identical manner from day to day. The Federal Reserve System has over the years, however, taken advantage of every possible opportunity to expedite transportation and facilitate physical handling, in order to keep performance as close as possible to the present two-day maximum collection schedules, as a means of minimizing the extent of the day-to-day swings in float.

The facilities in use at mid-1956, efficient as they are, still leave a range of variation within any month of somewhere between ½ and 1 billion dollars in the amount of float outstanding. Apart from holidays or seasonal influences, the principal reason for that is to be found in the simple fact that more individuals and more businesses customarily write checks in the second week after the end of each month than at any other time within the month. But the consequence is that, in a framework of over-all policy considerations that may envisage changes of 300 or 400 million dollars in bank reserves within a month as the signal of a significant change in fundamental policy, it is necessary to offset through other means a considerable part of the much larger variation in reserves produced by float alone, if the reserve conditions expressive of general credit policy are to prevail.

In calculating probable float patterns for each month, the starting point, of course, is the daily pattern of float for the same month over the past several years. Ordinarily, five preceding years are studied closely, although others may also be examined. Adjustments must be made for the shift of dates from year to year from one day of the week to another. Thus, for example, June 1, 1956 fell on a Friday, and the behavior on that day and date would normally be somewhat different from 1955, when June 1 fell on a Wednesday. Moreover, there is always a float backwash following a holiday, and in this case the holiday was only a "partial" one — the Memorial Day holiday on May 30 being observed only in the northern and western parts of the country. That holiday backwash will also vary depending upon the day of the week in which the holiday falls. Detailed aspects such as these have to be studied on the basis of past experience, and of recent experience over the past few days, before a projection can be prepared to show whether float may rise on June 1, 1956 by 100 million dollars or more, or possibly drop off by that amount. As a general rule, on some date near or just following the middle of the month, float will reach a monthly peak, ½ billion dollars or more above the low point usually occurring around the beginning of the month, but the day-by-day incidence of the changes will also be influenced by such factors as tax dates, falling on the fifteenth of several months.

In view of the fact that the aggregate of checks passing through the banking system on any day will be in the magnitude of 6 to 10 billion dollars, it is indeed remarkable that the handling facilities produce float variations measured only in the hundreds of millions. It is even more remarkable that the daily estimates of float changes, though often in error, are usually within less than 50 million dollars of the actuals, and in the right direction (as to increase or decrease) most of the time. No matter how great the efforts of the Federal Reserve's operating arms, however, it is never possible to know what these actuals are for a given day until some time after 3 p.m. on the following day. Thus there normally is no possibility of taking action on the basis of known behavior of the float until the second business day following that on which a given change in float occurs. Since the same is true for all of the other factors being described here (except changes in the Treasury's balance, as explained below), it should be clear that there is no substitute for action based upon the "feel" of the market (though always conditioned and alerted by the projections) if the Federal Reserve System's efforts are to be most nearly effective in preventing mechanical influences such as these from obscuring the pattern of bank reserves indicated by general credit policy.

2. CURRENCY IN CIRCULATION. The movements of currency out of the banks into the hands of the public must almost always produce a roughly corresponding

reduction in bank reserves. There is some absorptive capacity in the currency supplies held by the banks themselves, which are not counted as part of a bank's legal reserves, but it is generally the case that banks paying out substantial amounts of currency on balance will replenish their stocks (or anticipate the outflow) by calling on their own Federal Reserve Bank. When the currency is shipped from the Federal Reserve Bank, there is a corresponding charge made for the specific amount involved against the member bank's reserve account. Conversely, when there is a return flow of currency from circulation into the banks, the banks customarily forward any holdings in excess of their normal till requirements directly to their own Federal Reserve Bank. On the arrival of the currency, there is a corresponding credit to the member bank's reserve account.

Much of the time, the day-by-day variation in currency outside the Federal Reserve Banks is in considerably smaller magnitudes than the changes in float. Except for the days immediately preceding, and occasionally shortly following, a legal holiday, the actual changes of currency in circulation on a given day generally run between 25 and 50 million dollars. However, there is a systematic seasonal pattern of currency outflows, usually aggregating nearly 1 billion dollars, through the late autumn until Christmas. Shortly afterward there is a roughly equal return flow of currency concentrated in late December, January, and early February. Underlying this and other seasonal swings there is usually a steady upward trend in the volume of currency outstanding, basically reflecting the growing volume of business activity and the rising population, and there are also marked cyclical movements in response to swings in business activity. Consequently, for this variety of reasons, currency flows during the course of any year may account for a greater swing in total bank reserves outstanding, and give rise to a larger volume of compensating System action, than might be required for all of the System's *dynamic* responsibilities, if there were no mechanical fluctuations to face.

Projections of currency changes, day by day, are built up from the records of past experience in roughly the same manner as that already described in discussing float. Much of the time, the precision of the projections is very close. But there are generally three or four periods in any year when something happens to enlarge or spread out the currency outflow, or its return, and at these times there is again no substitute for the "feel" of the market in interpreting the immediate repercussions of such developments upon the existing state of bank reserves.

3. The Treasury's balance in the Federal Reserve Banks. We have already seen something of the significance of variations in the Treasury's balance at the Federal Reserve Banks, and of the arrangements that have been made to minimize the effect of swings in this balance upon bank reserves. Perhaps it is a sufficient reminder of the usefulness of, in fact the absolute necessity for, these arrangements to contemplate what might otherwise happen to the money market if taxes paid to the Treasury on March 15 were all to be collected immediately into the Treasury's Federal Reserve balance. Although these actual collections spread out over several days, depending upon the speed with which the Internal Revenue Directors can process them, most of them are presented to the banks on which they have been drawn within ten days. Over this ten-day period in March of 1956, aggregate collections of nearly 3.5 billion dollars passed into the Treasury's depositary balances in commercial banks (in part because of special arrangements often made in such periods to "redeposit" part of the large tax checks received directly in the banks upon which these checks are drawn). Had it not been possible to leave these balances in the commercial banks for the time being, the actual reserve balances of the entire banking system in the country would have been cut by almost one fifth. Since disbursements by the Treasury from its accounts with the Federal Reserve Banks pass into the hands of the public and into the commercial banks, the disbursements add to bank reserves. If the Treasury could keep its balances in Federal Reserve Banks constant, the loss in reserves to the banking system through withdrawals by the Treasury from Tax and Loan Accounts would be exactly offset by the increase in reserves caused by Treasury disbursements.

Even with present arrangements, however, it rarely proves possible to estimate disbursements from, and the aggregate of all receipts into, the Treasury's Federal Reserve Bank balances with fine accuracy. Very often, the difference between actual expenditures or receipts and the projections for them may be as large as 100 million dollars on a single day, and it has been larger around the Treasury's tax receipt dates in March and June. Through the use of the "C" depositary arrangements, as a supplement to the regular procedures for issuing advance notices of calls, the Treasury is now equipped to take corrective action at the opening of business on the day following that in which a significant, unintended increase or decrease in the balance occurs. The use of "C" depositaries began only on August 1, 1955, but it is already clear to everyone concerned that this innovation has done much to minimize the abrupt changes in money market conditions attributable to unforeseen changes in the Treasury's balance at the Federal Reserve Banks. But one condition for the effective and equitable use of the "C" depositary technique must be that all possible effort is made to anticipate changes in the Treasury's balance in scheduling regularly announced calls, so that the cooperating "C" depositaries do not have to be buffeted too often with surprise changes of some magnitude affecting their own money positions on the day that the notice is received.

Consequently, the staff of the Treasury, that of the Federal Reserve Board in Washington, and the Money Market Section in the Research Department at the Federal Reserve Bank of New York, all continuously prepare estimates of Treasury receipts and expenditures. Starting with total budget figures, broken down among approximately fifteen major categories of expenditures and an equal number of categories of receipts, these staffs work their way down to the point of preparing calculations of the actual cash flow in each of these categories for every day over a period several weeks ahead. These detailed estimates are continually revised for the seven days immediately ahead on the basis of intensive study of the breakdown of actual receipts and expenditures as reported to the Treasury by the various Federal Reserve Banks, in their capacities as fiscal agent for the Treasury, by telegrams dispatched after the close of business each day.

As far as the use of projections of the Treasury's balance in the Federal Reserve Banks by the Account Management is concerned, the convenient assumption is always made, and quite rightly so, that the balance will be constant at the desired level for the period beyond three weeks in the future (this assumption is not made for the months of March and June, however, when it is necessary because of the heavy incidence of tax receipts to make detailed daily projections for the entire month about midway in the month preceding). In daily operations the Account Management can reasonably assume most of the time that no major deviation from a normal level of the balance need necessarily occur — even if projections of receipts and expenditures are revised after the regularly scheduled calls for the day in question have already been announced — since there can always be resort to the "C" depositaries if the deviations are unduly large.

Thus there is now a very significant difference between the use made of projections of the Treasury's balance and that made of the projections for float or currency. As we have seen, the problem in the case of float and currency is to decide whether or not a projected deviation is occurring by judging the immediate evidence visible in the market, and then if necessary to take offsetting action of an entirely different kind, usually through buying or selling Government securities to release or absorb additional reserves. In the case of the Treasury's balance, the means exist for taking direct action immediately upon the item itself, in order to hold to a minimum its distorting influence upon the money market, and at times to a limited extent the Treasury may allow its balances to vary from the constant level when that would be of temporary assistance to the Federal Reserve in the latter's daily operations. That does not mean, however, that in the case of the Treasury's balance all possible occasions for offsetting action by the Federal Reserve have been removed. There is often, for example, a fairly wide difference between the projections prepared by the Treasury staff and those prepared by either of the two Federal Reserve groups, and the Account Management must take those differences into account as one of the many factors it has in view when making a judgment as to whether some market action is immediately necessary. Moreover, even the use of the "C" depositary mechanism is operative with a one-day lag. It is quite possible for the balance to run consistently as much as 100 million dollars or even more below the usual norm, or above it, as deviations between the actuals and the projections persist for several days running, and the compensating action through the "C" depositaries never catches up. Consequently, although fluctuations in the Treasury's balance no longer play the major role among the disturbing influences in the money market that they once did, variations in the Treasury's balance still occur in magnitudes sufficiently large, at times, to require some offsetting action in the money market by the Account Management.

4. GOLD AND FOREIGN ACCOUNT. With this country's increasing importance as a world money center, and with the stability of the dollar in terms of gold, and its free convertibility continually attracting more and more of the world's monetary reserves into deposit balances and security investments in the United States, the potential vulnerability of the money market here to net flows of funds in or out of the country has been materially increased since World War II. Along with that growth in foreign dollar holdings, a large part of the official holdings of foreign monetary authorities has been channeled into the Federal Reserve Banks. Because this has resulted in the concentration of a substantial part of the investment operations for foreign official accounts in the Federal Reserve, it has become possible to take into account many of the net flows, as distinct from mere shifts of ownership of balances already held here (which at times aggregate as much as 100 million dollars or more during the course of

a single week), and where necessary to take offsetting System action in the money market.

As of June 27, 1956, the total of foreign official deposit balances held in the Federal Reserve Banks was 293 million dollars; the total of gold held under earmark for foreign and international accounts in the vaults of the Federal Reserve Bank of New York was 6.9 billion dollars; and the total holdings of Government securities for foreign accounts, held in custody by the Federal Reserve System, on the same date aggregated 3.7 billion dollars. Changes in these magnitudes affect bank reserves and must be taken into account in scheduling open market operations. On the basis of information available from the foreign monetary authorities on their planned operations, projections can be prepared to serve as the initial basis for estimating the "gold and foreign" part of the over-all picture that the Account Management must keep in view when planning action in the market in the execution of Federal Open Market Committee instructions. Moreover, any unexpected disbursements of funds from, or receipts to, these accounts become immediately known to the operating officials of the Foreign Department of the New York Reserve Bank, and can be quickly transmitted to the Trading Desk. If a purchase or sale of Government securities is involved, the transaction is, in fact, executed by that same Trading Desk upon receipt of the order. Thus, action not foreseen in the projections can, nonetheless, be included in the reckonings of the Account Management.

5. REQUIRED RESERVES. The actual required reserves of each member bank on a given day, under present regulations, are computed by applying the existing reserve requirements applicable for each bank to the deposits, less cash items in the process of collection and demand deposits with other banks, which that bank holds at the opening of business on the given day.[9] Thus, any development influencing the total volume of outstanding bank deposits, and any shift in the distribution of demand deposits among banks in the three categories — central reserve city (requirement presently 20 per cent), reserve city (requirement presently 18 per cent), and country (requirement presently 12 per cent) — or the distribution between demand and time deposits (requirement presently 5 per cent at all member banks) will affect the actual amount of required reserves on the next day. Obviously, when an attempt is made to predict the required

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[9] In turn, each bank averages its requirements for its reserve computation period (one week for central reserve city banks and reserve city banks, and semimonthly for country banks) and also averages its reserve balances, to determine whether or not it meets the requirement for the period. Modest deficiencies, if they aggregate 2 per cent or less of average daily requirements, may be carried forward into the next reserve computation period and offset then. However, such a deficiency must be fully met in that next period. Penalties are assessed on deficient banks which do not "make up" within the allotted time. Of course, each bank is expected to attempt to cover its reserve requirements at all times and not to take undue advantage of the carry-over privilege.

reserves for all member banks for the country as a whole (and for each of the three classes of banks), there is some reverse effect with the other factors affecting the volume of reserves. For instance, as the public withdraws currency from the banking system, there is an automatic decrease in deposits, so that in some measure the reserve drain resulting from the currency outflow is offset by the reduced requirements against the smaller deposits. The converse applies when currency in circulation declines.

The principal general influence upon deposits over the longer run is, of course, the total outstanding amount of credit currently extended by the banking system (including all loans and investments held by the banks). Therefore, it is necessary to embody within the calculations related to the projection of required reserves an explicit estimate of the increase or decrease day by day in the total credit being extended by the banking system. However, there would be an element of circularity involved in using such projections, without modifications, as guides for Federal Reserve open market operations. If the forecasts of bank credit were always to be taken as given, and determined independently of all Federal Reserve action, the required reserves data in the projections would reflect what total credit *demands* are expected to be instead of being related to the total growth in credit that is to be *permitted,* on an approximate over-all basis, by Federal Reserve policy.

In these day-by-day projections, considerable use is made of the historical patterns of the previous years, along lines comparable to those followed in estimates of float and currency changes, since the daily changes in required reserves have many aspects of a mechanical nature included in them. But they are much more markedly influenced by cyclical changes in business activity and the reflection of these movements in the employment of bank credit. Therefore, in considering the various factors contributing to a possible need for funds in the money market at any given time, changes in required reserves cannot always be considered in the same light as other factors — as potentially distorting influences in the money market requiring *defensive* action. In that sense, the estimates for this factor are different from the others already mentioned.

THE "FEEL" OF THE MARKET

Despite steady improvement over the years in the comprehensiveness and reliability of the projections prepared for the use of the Account Management in its daily operations, it should now be amply clear that action can never be based upon the projections alone. It is necessary each day to take advantage of the great range and variety of signals coming from the current performance of the market itself in order to develop judgments, not merely as to whether or not the net effect of the existing projections is actually being borne out in the market, but also as to whether the current psychology of the market conforms with the degree of ease or pressure intended by the Federal Open Market Committee.

Even if the Account Management can feel reasonably convinced, on the basis of its present "feel" of the market as a whole, that the expected developments in terms of changes in the dollar magnitude of bank reserves are occurring, that same "feel" may also persuade the Account Management that the necessary action should take different forms from one time to another or that the action can be more, or less, cautious than the dollar magnitudes might imply.

With surprising frequency, the import of the "feel" will be that projections, which might in themselves have called for some offsetting action to release or absorb reserves, are not being distinctly borne out. Or the import may be that developments which the market expects to encounter later are currently immobilizing any momentary enlargement of reserves so that no offsetting action seems necessary at the moment, particularly if the projections themselves had suggested to the Account Management that the indicated excess might be of temporary duration (perhaps the result of a sharp peak in the level of float extending only over two or three days). Or the current geographical distribution of reserves, particularly when increases have gone mainly to the smaller country banks, may account for an apparent difference between the figures and the "feel". No formula can ever be written to provide a sure guide to the decisions that must be reached from day to day on the basis of such observations, conditioned as they must always be by experience. But no matter how extensive the experience of those assigned to the Trading Desk, the pivotal significance of action taken there, in conveying to the market a relatively consistent view of the policy of the Federal Open Market Committee through the maze of wide swinging mechanical disturbances always at work, makes it necessary at all times to keep continually alert for new methods that may improve the sensitivity of existing arrangements for taking the "feel" or the pulse of the market at any given time.

As already mentioned in Sections III and V above, the Account Management has over the past few years been taking advantage of current changes in the structure and procedures of the market to broaden its own knowledge of the day-by-day developments in the New York money market and of the relations between that center and the national money market as a whole. Without necessarily implying official endorsement or sponsorship of these arrangements, and understandably reluctant to express such views in any event, the Account Management has been utilizing its day-by-day contacts with the dealers, in reviewing their financing requirements as these relate to possible needs for repurchase agreements, to provide an up-to-the-minute indication of the extent to which funds are becoming available in various parts of the country. Through contacts with all nonbank dealers, many of whom have quite different contact networks, the Desk is in a position to use this information in further clarifying what is already being obtained from many other sources, including the current data on bank reserve positions in New York and information received from the Wire Transfer Division of the Bank on sizable transfers of funds between banks in New York and those in other parts of the country.

In addition, with the growth of the Federal funds market, the Account Management has been continually broadening and enlarging the daily flow of information received from the banks concerning their own transactions in Federal funds. Studies are presently under way to determine whether further extension of these reports to other banks and to other regions might be practicable in order to improve the ability of the Account Management to gauge accurately the pulse of the national money market at any given time.

Moreover, the steadily broadening facilities for obtaining information during the course of the day from the money position men of the various banks is more and more being supplemented by direct contacts, when appropriate, with other institutions, both financial and nonfinancial, which may at times play a leading role in current market developments. This has, in the case of nonfinancial corporations, always included some direct information concerning the dates on which payment will be received for large new security offerings, and has often included information as to the banks where the funds will be gathered together as well as information concerning the contemplated plans for immediate investment of the proceeds (which usually takes the form of a substantial short-term investment in money market assets). Some of the major financial institutions located in or near the downtown financial center also have sufficient variations in their money flows to thrust them at times into the money market as a significant short-run influence; the Manager, Market Liaison and Administration, and the Vice President-Manager in particular cases frequently receive information about these situations. In volunteering information of this nature, the various cooperating institutions make a valuable contribution to the analysis of market influences.

From this diffuse complex of varied kinds of information, enough generally can be assembled to give the Account Management a cross-section view of all, or nearly all, of the influences at work in the money market on any given day. Many of them, once known, can be forgotten, in the sense that they help to resolve otherwise perplexing questions which, once resolved, need have no further place in influencing the judgment of the Account Management concerning the day's needs for funds or the possible need to absorb funds. All of these sources of information are, however, an integral part of the over-all view that the Account Management must have, if it is to be successful in continuing to express through the money market the primary influence of the credit policy determined by the Federal Open Market Committee.

One final caution should be noted, before turning to other things. The fact that the "feel" of each day's situation provides the final cues to action or inaction should not suggest that all action is determined solely by improvisation from day to day. For whether or not the projections prove precisely accurate on each day as it comes along, they do serve as usable rough guides to the shape of things over the next few days and weeks. And no judgment as to action today, however much affected by the actual influences visibly at work, can safely be taken without reference to the probable pattern (or the principal alternative patterns) of reserve influences lying just ahead. In a sense, the projections enable the Account Management to add another dimension — the immediate future — to the body of information that helps to determine each day's operations.

VIII. Trading Methods and Objectives; Coordination with Transactions for Other Official Accounts

Once the Account Management has decided, on the basis of all presently available information, that action should be taken in order to further the current objectives of the Federal Open Market Committee, the choice as to procedure lies mainly between outright transactions and repurchase agreements in Government securities. On a very broad basis, of course, outright transactions are used when there is good reason to believe that the change to be made in the reserve base may be of some duration; and repurchase agreements are used when a need for funds is most likely to be quite temporary, soon to be followed by a need to reverse the effect of the operation through the absorption of funds. But it would be difficult indeed to catalogue all outright transactions under the first set of conditions, or to catalogue all repurchase agreements under the second. Further description of the methods and procedures inherent in each type of operation may help to suggest some of the peculiar qualities of each that make the choice of one or the other particularly appropriate in various circumstances. Following the discussion of outright transactions and of repurchase agreements in Government securities, there is a third part of this present section devoted to operations in bankers' acceptances; and then a fourth, indicating the variety of ways in which the Account Management may effect coordination between the Federal Reserve System's objectives, in its own Government securities transactions, and transactions that also come to the Trading Desk for execution from various Treasury trust funds and investment accounts, from foreign central banks and governments, and from some of the smaller member banks in the Second Federal Reserve District, as well as from a few other miscellaneous accounts.

THE EXECUTION OF OUTRIGHT TRANSACTIONS FOR THE SYSTEM OPEN MARKET ACCOUNT

In recent years virtually all purchases or sales in the market for System Account on an outright basis have been made in Treasury bills. As already explained, any dealer who consistently demonstrates his readiness to make markets is welcome to compete for transactions with the Account, provided the firm meets reasonable standards of credit-worthiness and provides the financial statements needed in reaching a determination to that effect.

Once the Account Management decides, for example, to purchase Treasury bills in a magnitude of 50, or 75, or 100 million dollars, its approach to the market is governed by two overriding considerations. First, it must trade with all dealers on a freely competitive basis. This means, when buying, that it will take bills at the lowest offered prices (highest yields), up to the point that the intended total of purchases is reached. Second, the Account Management must give some weight, if the size and variety of dealers' offerings are great enough to permit any leeway, to the need for maintaining a maturity distribution of the portfolio that will best contribute to the practical administration of the Account over the months ahead. This means that when the Account holds no bills of a particular weekly issue, perhaps because it had let the preceding issue run off at maturity in order to absorb reserves at that earlier time, some preference would be given to restoring a moderate holding of that particular maturity, all other things being equal. There are other similar operating considerations that have to be taken into account.

The usual procedure, once the Vice President-Manager has reached his decision, is to brief all available members of the trading staff on the language to be used in contacting dealers, and to assign each person to two, three, or four dealers as his responsibility. On instructions from the Manager, Trading and Markets, all traders then begin simultaneously contacting dealers to ask for bids or offerings, as the case may be, specifying particular maturities where that is appropriate. Under present arrangements, it is usually possible for the traders to reach all dealers and note their bids or offers within an elapsed time of three to five minutes. It is necessary to act quickly so that no dealer can be placed in a privileged position either by obtaining knowledge of a Federal Reserve System operation in advance of other dealers or by being able to bid or offer after the initial impact on prices becomes apparent (which might be a particular advantage, in the event of Federal Reserve purchases, for example, if the purchases had an immediate upward influence on Treasury bill prices).[10] As each trader completes his contacts with dealers, all of the bids or offers he receives are promptly assembled on a single worksheet, or "blanket", which the Manager, Trading and Markets, and any other officers currently working with him, can then use in order to select those bids or offers which, in conformity with the two principles just mentioned, will fulfill the System's buying or selling objective.

[10]System action does exert an influence on prices of bills, and other Government securities as well, but fortunately the market is no longer as sensitive to this particular procedure as formerly.

The bids or offers received from the dealers are requested on a "firm" basis for twenty minutes or thereabouts, as a general rule, and by the elapse of that time the selections will have been completed and each trader can begin return calls to the dealers indicating which, if any, of their bids or offers are to be taken. Generally, this entire operation, known colloquially as a "go-around", is completed within thirty minutes. The Account Management usually conducts operations in the manner described, unless unsettled conditions are so pervasive in the market that the broadside effect of a full-scale "go-around" threatens to be unduly disruptive. Under those circumstances, the Account Management may achieve its objective in terms of absorbing or releasing reserves, with less pronounced impact on market psychology, by simply taking advantage of bids or offers that are volunteered by the dealers during the course of the routine conversations continually in process between the traders on the Trading Desk and those at various dealer firms. In no event, however, would purchases or sales be made at prices out of line with those currently prevailing in the market, as checked and cross-checked by all of the traders in their continuing conversations with the market.

Outright transactions are normally executed either for "cash" (that is same-day) or for "regular" (next-day) delivery and payment. Due to mechanical problems of physical delivery, it is ordinarily not practicable to initiate negotiations with respect to cash transactions after 12 o'clock noon, although in special circumstances, particularly when the Federal Reserve is a seller, transactions may at times be executed as late as 1:00 p.m. One advantage or disadvantage of cash transactions, depending on the circumstances, which also applies in the use of repurchase agreements to be described below, is that they provide or withdraw Federal Reserve funds to or from the market immediately. There are times when, in the nature of a developing situation, a prompt release or withdrawal of funds is particularly desirable. Transactions for regular delivery may, of course, be executed at any time until the 3:30 p.m. closing hour. Thus, it is broadly correct to generalize, as far as outright transactions are concerned, that any action intended to influence reserves today must be decided upon, and execution must begin, before or close to noon. Any reserve effect which can suitably be exerted on the following day may be brought about through regular delivery transactions at any time during the trading day.

Because of the difficulties of assuring timely physical deliveries, particularly when dealers may have to withdraw securities already pledged on loans at other institutions in order to effect delivery, or must await deliveries of the securities from customers, the Account Management often finds on its "go-arounds" that dealers are not prepared to offer enough securities on a cash basis to meet the Federal Reserve System's objective. Conversely, when the System is on the selling side, dealers may also be somewhat reluctant to take as many securities as the Account Management may have in mind because of the difficulties of subsequently making arrangements late in the day for additional loan facilities, both in order to be able to pay for the securities when picking them up (in Federal funds) and in order to carry the securities in position after receiving them. By comparison, when the Federal Reserve policy objective indicates a need for buying, the repurchase agreement facility usually provides somewhat greater flexibility. Securities that a dealer may still be in need of financing ordinarily will be more easily accessible, right down to the last minute at which the dealer closes his own books. Repurchase agreements can physically be negotiated as late as 1:30 p.m., and timely deliveries subsequently effected. Although it is rarely practicable from the Federal Reserve System's own point of view to operate that late, there are some occasions when the Account Management is glad to take advantage of this avenue for placing funds immediately in the market at a relatively late hour in the trading day. Of course, the greater flexibility of operations in repurchase agreements is dependent upon the dealers having securities in position that they are willing to finance through a repurchase agreement with the Reserve Bank at the rate of interest the Reserve Bank is charging on that day.

ENTERING INTO REPURCHASE AGREEMENTS WITH NONBANK DEALERS

There has already been frequent occasion to refer to the use that is made of Trading Desk conversations with the dealers, concerning their needs for funds, to supplement other sources of information concerning the present immediate availability of money, both in New York and out of town, and from bank and nonbank sources. The readiness of the dealers to provide a full picture of their unfolding situation is heightened, of course, by their knowledge that the Account Management may on any given day decide that funds can appropriately be released by the Federal Reserve System itself through the acquisition of securities under repurchase agreements. The general terms applicable to repurchase contracts have already been described in Section III above (pages 25-6).

One necessary condition for entering into repurchase agreements with the dealers is that each must file with the Federal Reserve Bank of New York an underlying collateral agreement which provides for the disposition of the securities if the dealer should not perform his part of the contract. The dealers must also provide, as they would to their regular banks of account, periodic financial statements. On the basis of the net worth shown in the latest statement for each dealer, the Account Management maintains informally a set of credit lines, placing an upper limit on the total amount of repurchase agreements that will be extended to each dealer. Only on rare occasions would repurchase agreements be entered into in an over-all magnitude so large as to approach the limits of the "lines" for many of the dealers. There is a related limitation, though perhaps a relatively minor one, on the amount of repurchase agreements that may be done by a dealer, arising from the fact that the securities purchased under repurchase agreement are customarily valued by the Trading Desk at prices slightly below those currently prevailing in the market. In effect, the dealer ties up a part of his capital in carrying the margin between the price at which the securities are valued for purposes of the repurchase agreement and the cost at which he may currently be carrying the securities on his own books.

Ordinarily, the Account Management does not have sufficient information to reach a decision on the advisability of entering into repurchase contracts until 12 o'clock noon; and more often than not, the further study of reports from the dealers and other sources must continue until 12:30 p.m. or later before a clear-cut decision can be reached. By that time, the Vice President-Manager has an over-all picture of the total remaining financing needs of the dealers, and of the progress that each has made through his range of contacts across the country. Summary notes on each conversation by any of the traders with each dealer, from the opening of the market each day, are kept on a single worksheet, so that the Vice President-Manager or any of the other officers can appraise at a glance the current situation with respect to dealer financing at any time before the final decision is reached. At that stage, the Vice President-Manager decides, on the basis of all the evidence concerning prevailing pressures then present in the money market, whether or not to make any repurchase agreements, and, if some are appropriate, he must then decide on the total amount of funds to be released in this way. He and the other officers participating with him then work out an equitable allocation of this total among the dealers still reporting some financing needs. Depending upon the extent to which it seems appropriate to go in relieving the immediate pressures, the Vice President-Manager may have decided to meet perhaps one third, or possibly two thirds, or in unusual circumstances virtually all, of the remaining dealer financing needs through the extension of repurchase agreements.

The Vice President-Manager must also decide on the number of days for which the contracts will be written, and in some circumstances he might set a rate of interest on the contracts that is above or below the discount rate of the Federal Reserve Bank of New York, although it is the discount rate which is almost invariably selected. In deciding on the term, the Manager takes into account the probable duration of the period for which additional funds ought to be supplied to the market. Quite often there is no clear-cut timing pattern, and the Manager may decide to extend the contracts for a full fifteen-day term, relying upon the dealers themselves to repay in advance of that final date as additional funds become available in the market at rates below the rate on Federal Reserve repurchase agreements, or as the particular securities placed under repurchase agreement may subsequently be sold by the dealers to other customers, thereby necessitating their withdrawal from the repurchase contract.

There are many occasions, however, when repurchase agreements may be used as a suitable means of temporizing in a situation where the "feel" of the market indicates intense tightness, although the projections suggest that money should be available. In those circumstances, aware of the Federal Reserve System's interest in smoothing out unusual or severe strains in the money market and realizing that the projections are not infallible, the Vice President-Manager may decide to provide temporary relief, while awaiting further developments over the next day or two that will either confirm the persistence of undue tightness or, conversely, indicate that the projections are being fulfilled and that the excessive pressure was only the result of a temporary knot in the money market which could not at the moment be untangled. In this way, with repurchase agreements written for only a few days or perhaps only for one day, the danger of any serious cumulative development can be forestalled, without supplying reserves on an outright basis. Moreover, the actual release of funds, usually in rather limited amounts, will flow directly to those dealers upon whom the converging pressures of the money market, coming from all sides, have been concentrated. Outright purchases of Treasury bills in such circumstances might not go immediately to the heart of the need if the dealers under most intense pressure should not have significant amounts of Treasury bills available to offer; moreover, should the strains prove short-lived, the market would have been subjected to the always perplexing spectacle of a quick shift by the Account Management from purchases on one day to sales a day or two later — a factor of great psychological influence that might cause disturbance or an unsettling misunderstanding in the market. If, after a few days, the persistence of pressures should be clearly confirmed, however, the Account Management may then with greater confidence undertake outright purchases and await the termination of the repurchase agreements at maturity, or before if the dealers should have reason for doing so.

Another kind of situation in which the extension of repurchase agreements, as a temporary measure, helps to provide a useful, steadying influence in the market arises at times of Treasury financing operations, particularly during periods when commercial bank rates are relatively high. Repurchases may be more likely to fill a unique need in the event of an exchange offering, rather than an offering for cash, but there are circumstances in connection with either type of Treasury offering under which the immediate volume of securities being carried by the dealers — as "rights" in advance of the delivery date of an exchange offering, or as new securities on and shortly following the delivery date for either type of offering — would impose a heavy burden on their financing capabilities, particularly at times when for other reasons the usual sources of funds might have run dry. The dealers at such times would be serving the important purpose of assisting in the underwriting and initial distribution of Treasury offerings, and of helping to make the broad markets in such securities that are often essential to the successful initial flotation of any large issue, even including one of the United States Government.

Because of the massive size of virtually all Treasury debt operations, they are inescapably a temporary distorting influence upon the usual day-by-day procedures of the Government securities market, and they frequently have temporary money market repercussions that would, if unchecked, create conditions out of line with the prevailing aims of general credit policy. Thus, not necessarily as a specific aid to the Treasury, but as a means of helping to smooth over the impact on the market of a gigantic borrowing operation, there is a place for some temporary use of repurchase agreements. By helping dealers to carry some part of their additional holdings at such periods, repurchase agreements may keep the indigestion that is almost chronic with some types of large issues from becoming a serious disorder. When used in this way, and they are not by any means always used in connection with Treasury borrowing operations, repurchase agreements may be able to minimize undue interference with the steady reflection of credit policy itself in the market.

One other incidental detail, of no material consequence but perhaps a source of some misunderstanding, is that all repurchase agreements are currently written for the account of the Federal Reserve Bank of New York, rather than for all the Federal Reserve Banks. The reasons for this are of a procedural nature related to accounting practices. Because the amount of outstanding repurchase agreements often varies considerably from day to day, and because there are no repurchases at all outstanding as much as one half of the time, the awkwardness of attempting to "participate" the ownership in these agreements among the twelve Reserve Banks has, in the past, outweighed any possible advantage from joint ownership. All repurchase agreements are, in any event, written in accordance with specific authorizations of the Federal Open Market Committee, and are reviewed at each meeting of that Committee. At any time the Committee could, of course, direct that holdings should be participated among the twelve Reserve Banks if there were a reason for doing so; also, the New York Bank may, at its discretion, participate its holdings.

OPERATIONS IN BANKERS' ACCEPTANCES

Dating back to the early 1920's, when there were no Treasury bills in the United States and a larger part of the Federal Reserve System's open market operations were conducted in bankers' acceptances, the Bill (Acceptance) Division[11] of the Securities Department has always made its services available to the Foreign Department of the Bank, to buy and manage acceptance holdings for any foreign central banks wishing to acquire acceptances in this market. For a long interval from the middle of the 1930's until the spring of 1955, it was the continued maintenance of modest holdings of acceptances for foreign central banks which, together with the New York Bank's responsibility to publish its monthly "Acceptance Survey", helped to maintain inside the Federal Reserve System the skills and facilities essential for the businesslike conduct of transactions in the bankers' acceptance market. As mentioned in Section III, the Federal Open Market Committee, in recognition of the potentialities for further use of bankers' acceptances that may be inherent in the expanding role of the United States in financing world trade, and for other reasons, decided to resume the acquisition of a portfolio in bankers' acceptances for the System itself. Estab-

[11]Operations in bankers' acceptances were conducted by a separate department in the Federal Reserve Bank of New York (known as the Bill Department) until March 4, 1939, when that department became a division of the Securities Department. The Federal Reserve System's responsibility toward the bankers' acceptance market implied in the Federal Reserve Act made it important that a trained staff be maintained even when the economic disturbances and easy money of the 1930's caused a prolonged decline of activity in the bankers' acceptance market.

lishing a rather modest limit on total holdings that may be acquired, and expressing a general intention to vary the size of this holding in a manner that would parallel other Federal Reserve action in the money market (the available supply of acceptances permitting), the Committee on March 29, 1955 authorized the Manager of the System Open Market Account to begin purchases.

For the same reasons of accounting awkwardness just mentioned in connection with repurchase agreements, the Committee directed that any acceptances acquired should be held for the account of the Federal Reserve Bank of New York. It also eliminated the former buying rates of the Federal Reserve Banks and directed that any purchases should be made at the going offered rate of the dealers for acceptances carrying the dealer's own endorsement, or another recognized endorsement. The Committee also authorized the Manager of the System Account to enter into repurchase agreements in bankers' acceptances under the same general conditions, and for the same general purposes, as those contemplated for repurchase agreements in Government securities.

Over the year and a quarter since the revival of the System's direct activity in the acceptance market, the portfolio has varied in a nominal range between roughly 7 and 24 million dollars, and repurchase agreements outstanding have reached a peak of roughly 11 million dollars although their use has been infrequent. Thus, the scale of operations in the acceptance market has not reached magnitudes that could be considered significant in supplementing operations undertaken in the Government securities market to influence the money market and general credit conditions. However, there has been evidence of renewed borrower and investor interest in acceptances, perhaps helped in part by the demonstration of interest on the part of the Federal Reserve, and the larger flow of acceptances through the Bill Division has permitted the Account Management a somewhat broader view of the variety and character of acceptances currently being written. The Bill Division has continued, as for many years in the past, to conduct a monthly survey of the acceptances outstanding in the United States and, as noted earlier, that too has been of some aid in stimulating interest in the use of acceptances. There also has been, over this recent period, somewhat greater flexibility in the bid and offer rates of the acceptance dealers, and changes in these rates have come to play a somewhat more significant part in helping to mark out or underline the more lasting changes, or directions of change, in the money market.

Because there are only four active dealers in bankers' acceptances, and because the scale of present operations is relatively small, there is no need to maintain Trading Room facilities comparable to those for Government securities. All of the purchases of bankers' acceptances are handled by the two senior members of the staff of the Bill Division. The Federal Reserve has not, as a matter of practice, sold acceptances out of its portfolio. Instead, as purchases are made, the "bill buyers" attempt to distribute maturities fairly evenly, by weeks and where possible by days. Thus, there are almost always some acceptances maturing every day, and in a relatively short time maturities alone can run the holdings down as far as might be appropriate in conforming to the direction of other credit policy action.

The fact that the actual negotiations to purchase acceptances can be handled without a large staff is also attributable partly to the fact that there is no price fluctuation within the day (as there used to be during the twenties), except on those occasions (which may be at intervals of several weeks or months) when a general change in dealers' acceptance rates may occur. Consequently, the negotiations with each dealer relate to the amount obtainable, the maturity distribution of that amount (usually running from twenty-one to ninety days), and the names of the accepting banks involved; but there is ordinarily no negotiation as to rate.

There is another aspect of acceptance purchases which does require the use of a larger staff and involves specialized skills. That is the examination of acceptances, once they arrive from the dealers, to assure their conformity with Federal Reserve regulations as to the nature of proper acceptance paper, and to assure that each bill is properly inscribed and endorsed. As arriving bills are examined, those found unacceptable are immediately returned to the dealers, who then may, if their own holdings permit, substitute other bills of comparable amount and maturity.

Although study of the legends on the great variety of acceptances passing through is a fascinating story in itself, revealing the great variety of goods moving in the channels of trade (and particularly international trade), and the many sources of origin and destination, the job of the acceptance clerks is the more cold-blooded one of verifying the negotiability of the instruments and their conformity with established acceptance practices and with the regulations of the Board of Governors of the Federal Reserve System, as well as inquiring, under some circumstances, into the credit standing of the business concern drawing the acceptance. Because of the nature of this paper, however, the principal reliance as to its soundness is placed upon the name of the accepting bank and the added endorsement which the acceptance carries. Current lists are maintained of all banks in the United States engaged in extending acceptance credit, and the condition of each such bank is periodically reviewed. The acceptance dealers are, of course, well-known to the officers and staff of the Securities Department, and each periodically provides the customary financial statements required for review of his credit-worthiness. On the basis of the net worth shown in each dealer's balance sheet, a credit "line" may, if necessary, be established applicable to the total amount of his endorsements that can be accepted on purchases made for the Reserve Bank's account and foreign accounts (combined), and over-all lines are also established for the amount of repurchase agreements that might be extended to each, on acceptances and Government securities taken together.

COORDINATION WITH TRANSACTIONS FOR OTHER OFFICIAL ACCOUNTS AND FOR SOME MEMBER BANKS

By far the largest dollar volume of transactions executed for accounts other than the System Account by the Trading Desk is that done for foreign central banks and governments. There is also a wide variety and occasionally a substantial volume of transactions executed for the various Governmental trust funds and investment accounts administered by the Treasury; and within the past few weeks there have been transactions for the sinking fund account of the Treasury itself. In terms of number of transactions and diversity among various outstanding marketable securities, the operations conducted for the smaller member banks in the Second Federal Reserve District also play an important part, although the dollar volume involved never looms very large. Any other transactions undertaken for some minor miscellaneous accounts are of a service nature and need not be mentioned here in any further detail. Taken as a group, these transactions for accounts other than the Federal Reserve have in recent years amounted to a total volume of roughly the same magnitude as the combined total of purchases and sales executed for the System Open Market Account itself. In terms of number of transactions, and frequency of individual contacts with the markets, this other business over the past two years has involved about five times as many separate transactions with the various individual dealers as are involved in transactions for the System Account. It may be interesting briefly to take a closer look at the three principal categories into which these other transactions fall: foreign, Treasury, and member bank.

1. THE EXECUTION OF TRANSACTIONS FOR THE ACCOUNT OF FOREIGN CENTRAL BANKS AND GOVERNMENTS. Virtually all direct relations between foreign monetary authorities and the Federal Reserve System, with respect to the management of deposit balances and the purchase or sale of securities, are maintained in behalf of the Federal Reserve by the Foreign Department of the Federal Reserve Bank of New York, which has a variety of arrangements for handling the investment requirements of its correspondents. This Department keeps the officers of the Securities Department informed concerning actual orders arriving or orders in contemplation. The actual execution of orders is carried out on the basis of written instructions from the Foreign Department, specifying all relevant details in conformity with these arrangements. Thus whenever such transactions reach the stage of becoming an influence in the market, and exerting an effect on bank reserves, the Vice President-Manager and his associated officers are in a position to effect suitable coordination with any action currently under way by the System itself, in connection with either its *defensive* or its *dynamic* responsibilities. Since the flows in and out of the deposit balances of these foreign central banks and governments are handled by the Foreign Department, a full picture as to the market effect of any specific security transaction can usually be obtained by piecing together information which would indicate whether or not funds are actually being absorbed from the market, or released to the market, on balance.

It is not at all unusual, during the course of any week, for transactions on foreign account to reach a magnitude of 75 million dollars or 100 million dollars, and they sometimes run much larger, without even taking into account the weekly Treasury bill tender. For many weeks prior to the time of this writing, the magnitude of the combined tenders submitted in the Treasury bill auction for foreign accounts has been larger than the tender submitted by the System Account itself, and typically these tenders are among the largest of all the bill tenders submitted. These figures give some indication of the potentialities inherent in the execution of these transactions for exerting a direct influence on the behavior of the money market, and upon prices of particular issues, and point clearly to the need for conducting these operations in a manner consistent with the Federal Reserve System's own action.

There are times when foreign orders may arrive which can make a helpful contribution in furthering the reserve effects intended by Federal Reserve action. For example, if purchase orders should come in on a day when the System Account is itself contemplating purchases, the release of funds by the foreign accounts might make Federal Reserve action at that moment unnecessary, although the Account Management would, of course, remain alert to provide funds through offsetting purchases if there were to be a subsequent absorption of funds by other foreign accounts. At other times, the sum of foreign account orders may have the opposite reserve effect to that intended by Federal Reserve action, and in these instances too the transactions are handled in a manner calculated to minimize conflict with Federal Reserve policy objectives. In principle it is always considered desirable to execute these transactions through the dealer market, and to have the specific confirmation of independently determined prices that is provided when transactions are actually executed with the dealers on a competitive basis. On occasion, different foreign account orders may involve purchase and sale of the same issue of securities, and could be "matched off" internally, but even these transactions are actually "crossed" through the market.

Because of the frequency of these foreign orders and the great variations in their size, foreign orders are rarely handled through a full-scale "go-around". Instead, any given transaction, or pair of transactions, is usually executed by one trader who contacts four or five dealers in order to obtain the best price under competitive conditions without going entirely "around the Street". It is often possible to direct these orders to dealers who have already, in conversations during the day, mentioned to one or another of the traders that they are particularly interested in the specific securities which happen to be involved in this order, or securities so close as to perhaps make them acceptable to the dealers as substitutes. Records are carefully maintained, however, and frequently reviewed by the officers of the Securities Department, in order to make certain that the distribution of opportunities to do this business is equitably allocated among all of the active dealers. But, in the final analysis, it is the performance of the dealers themselves, on a price basis, which determines how much of the total any one dealer may actually do.

2. Transactions for various Treasury accounts. Virtually all orders for Treasury accounts are executed on the basis of telegraphic instructions from the Fiscal Assistant Secretary. (There are a number of small and miscellaneous orders, usually executed in behalf of wards of the Government, for which instructions may be transmitted by letter.) At times a range of prices acceptable to the Treasury account is orally specified, but more often the order is to buy or sell "at the market". The Trading Desk maintains frequent contact with the relevant Treasury officials to assure their concurrence in the actual execution of

any order at the presently prevailing market price. For the most part, these various orders for Treasury accounts involve securities other than Treasury bills, perhaps most frequently the various notes or bonds, but transactions in bills are not infrequent. Any order received will specify the Government fund or account for which the purchases or sales are to be made, and will contain appropriate delivery and accounting instructions to be used by the Safekeeping and Security Custody Departments of the Bank in maintaining the detailed records and controls involved.

In executing Treasury orders, there is seldom any conflict with the reserve effects implied, since the officials at the Treasury and at the Federal Reserve Bank of New York who are involved in these orders are the same officials who normally consult each day concerning the management of the Treasury's cash balance, with a view to minimizing any disturbing effect resulting from the combination of all receipts or disbursements flowing through the Federal Reserve Banks. The other possible zone of conflict with the general objectives of credit policy, or the area in which results may perhaps be integrated with the ends of credit policy, lies in the market impact of the actual execution of outright purchases or sales, if they should be in any significant volume, so far as price movements and the psychology of the market are concerned. It is necessary, therefore, to handle such orders in a variety of ways, and to rely upon the skills and experience of the most seasoned traders, in order to accomplish businesslike execution without disturbing collateral effects. At times some effect on prices may be of no consequence, but at others it may be almost certain to have an upsetting influence in market psychology. The Account Management always feels free, when any consequences are envisaged that might be in conflict with the Federal Reserve System's current efforts, to request wide discretion from the Treasury officials with respect to the timing or the pace of fulfillment of orders.

3. EXECUTING ORDERS FOR MEMBER BANK ACCOUNTS. The Federal Reserve Banks, as a service to their member banks which are too remote from the facilities of the market and too small to be serviced regularly by dealers, stand ready to execute orders for them as agent without charge by making direct contacts with dealers in their behalf. A nominal charge is made if the transactions are for their customers. Perhaps somewhat less use is made of this facility at the Federal Reserve Bank of New York, compared with that at other Federal Reserve Banks, because of the proximity of banks in the Second District to the dealer market in New York City, but a number of the other Reserve

Banks do at times have a fairly large volume of such orders. Even here, there are a number of member banks located some distance from New York who are permitted to use the Federal Reserve Bank's facilities. The execution of these small orders by the Trading Desk provides an excellent opportunity for the traders to maintain a close, and really meaningful, contact with the traders of the various dealer firms throughout the day. As we have noted earlier, generalizations as to price changes, or looseness in the description of current quotations, will be quickly refined into an accurate reflection of a dealer's willingness to perform when he is actually confronted with business to be done. And the execution of a variety of small-lot orders (though perhaps such lots are not always entitled to the finely calculated "inside" market quotations) helps materially in providing that intimacy of working contact which makes possible an accurate picture of the state of the market at any given time.

As a rule, the officers of the Department prefer that a member bank whose business is of appreciable volume establish its own direct contacts with various dealers, or with city correspondents if investment advice is wanted, and generally this might be expected to occur without prompting, since dealers and large banks are constantly soliciting potential business which would be sufficiently large to compensate them for the expenses involved in frequent contacts and in executing transactions. In the event any such member bank continues to prefer availing itself of the services of the Federal Reserve Bank and the facilities of the Trading Desk, however, service will be provided. Ordinarily, transactions for member bank account are executed on a regular delivery basis, so that any aggregate effect on the flow of bank reserves will not be noticed until the following day. In any case, the cumulative total has never been large enough to be a factor of significance in influencing the availability of funds in the money market.

IX. Operating Liaison with the Federal Open Market Committee

Liaison with the Federal Open Market Committee is, of course, a two-way street, and it is probably as heavily traveled as the path between any two parts of any unit of Government. The inescapable fact that the seat of National Government is in Washington, and that primary responsibility for Federal Reserve policy determination must be in the statutory Federal Open Market Committee which meets in Washington, is paralleled by the equally inescapable fact that the center of the money market and the Government securities market is in New York. The physical trading facilities and the concentration of skilled trading staffs are also there. Consequently, it has been necessary to work out an unusual variety of arrangements for maintaining continuous contact between Washington, New York, and the other Reserve Banks to assure by exchange of information and frequent consultation that the detailed execution of policy in New York is in conformity with the policy objectives developed in Washington by the Committee.

But the Federal Reserve System is almost unique among Governmental agencies in that it also provides within its framework for a considerable measure of regional representation from across the country, participating in, but never dominating, the policy-determination processes. Consequently, there is continuous need to keep the Presidents of the other Federal Reserve Banks as fully informed as possible concerning conditions in the money market and the Government securities market, as a necessary prerequisite for the participation each may have in policy determination. At the same time each participating President — and over the course of any three-year cycle all Presidents serve at least one one-year term as a full member of the Federal Open Market Committee and at least one more year as an alternate member — must have continuing opportunity to review the detailed steps being taken by the Account Management in the daily execution of Committee directives, in order to raise any questions which he may have over the manner in which the Account Management is currently fulfilling the Committee's instructions.

The arrangements in existence as of mid-1956, in order to bring all of these important cogs together, fall into two categories: those concerned with the transmission of instructions from the Federal Open Market Committee to the Account Management, and those providing for the transmission of complete reports to all members and alternate members of the Committee (and other Reserve Bank Presidents not currently serving) from the Trading Desk concerning market conditions and operations currently contemplated or under way. Each of these will be described further here. It is to be understood, of course, as clearly indicated at the beginning of this pamphlet, that this is not the place to describe the policy-making procedures of the Federal Open Market Committee. We shall be concerned instead only with the manner in which the Committee's instructions are conveyed to the Account Management and the manner in which the Account Management keeps the Committee informed of the steps it is taking in carrying out those instructions.

TRANSMITTING COMMITTEE INSTRUCTIONS TO THE ACCOUNT MANAGEMENT

All policy is formulated by the Federal Open Market Committee at its frequent meetings, currently held at three-week intervals at the offices of the Board of Governors in Washington. Customarily, the Federal Reserve Bank of New York is represented at those meetings by its President (or his alternate, the First Vice President), who serves as a member of the Committee, and also by the Manager of the System Open Market Account (or in his rare absences by the Assistant Vice President serving under him). The presence of the President (or his alternate) and the Vice President-Manager throughout the entire discussion makes it possible to acquire an understanding of all of the shades of meaning that emerge, in elaboration of the formal directives customarily agreed upon and transmitted to the Federal Reserve Bank of New York after the end of the meeting. The Manager of the System Account is thus equipped to interpret specific situations as they arise in the light of the full discussion at each preceding meeting. Official minutes, prepared by the Secretary of the Federal Open Market Committee and reviewed in detail by all members, serve as the lasting official record of the full range of instructions given to the Account Management and are, of course, strictly confidential.

Enough has already been said concerning the day-by-day volatility of the money market to make it clear that any detailed projections prepared for the use of the Committee at the time of any particular meeting cannot be expected to hold good without material deviations over the entire period that will elapse until the next meeting occurs. Consequently, it is necessary to keep the members of the Committee continuously informed as to the nature of all the deviations from the projected pattern that develop day by day, and as to the judgments being made by the Account Management in taking action for the Committee against a shifting background in fulfillment of the direction of policy and the general principles agreed upon at the latest meeting. The principal method for assuring continuous review by the Committee members, in this changing situation, of the adaptations being made by the Account Management as action becomes necessary, consists of a detailed telephone conversation held at 11:00 a.m. each business day. Several representatives of the Board of Governors, and any of the Governors themselves who may be free to participate, always take part in this telephone conversation. In addition, one of the

Reserve Bank Presidents currently serving on the Committee also joins the telephone hookup; and from meeting to meeting there is a rotation among Presidents, so that each has frequent opportunity to take part in these daily reviews of the current situation.

Ordinarily these conversations run fifteen to twenty-five minutes and they bring together everything available by that hour of the day concerning the vast range of developments described in Section VI where a picture was given of "A Day's Work at the Trading Desk". As indicated there, these telephone conversations culminate in a formulation of the specific steps, or the presently visible alternatives and the conditions upon which each may depend, for action to be taken through the remainder of that day. Immediately following completion of this telephone conference, senior members of the staff of the Board of Governors who have participated in the conversation prepare a full summary which is immediately circulated to all members of the Board of Governors and at the same time put on the wire to each Federal Reserve Bank President. In that way, shortly after 12:00 o'clock noon (Washington time) each Federal Reserve Bank President across the country will have in written form a digested summary of the day's opening developments and the probable courses of action. Thus, on any day, and often before the moment has been reached when specific action is to be taken, every participating member of the Federal Open Market Committee has an opportunity to review what is in process and to contact the Vice President-Manager to raise any questions that he may have concerning the course of action contemplated. Of course, any members who participate in the telephone conversation itself may raise questions or seek further clarification while that conversation is in process.

In areas as complex as those of the swiftly changing money and Government securities markets, where the execution of transactions must occur at some distance from the location of most of those who carry the main responsibility for general policy formulation, this pattern of continuous reporting and review probably provides the best approach to a workable arrangement for fulfilling policy objectives promptly, in the light of swift-breaking market developments. In effect, the telephone arrangements and the subsequent distribution of the details of the conversation, provide a day-by-day specific reconsideration of action — as the Vice President-Manager attempts to work out solutions for each day's shifting problems as near as possible to those which the Committee as a whole would itself have decided upon if it could physically be present and in a position to review as a body the specific operating situation arising each day.

TRANSMISSION OF REPORTS FROM THE TRADING DESK TO THE SYSTEM OPEN MARKET COMMITTEE AND OTHER SENIOR FEDERAL RESERVE SYSTEM OFFICIALS

Although the arrangements for daily review of contemplated action themselves rest upon reports transmitted by the Account Management, those reports by telephone may properly be considered a part of the continuing liaison through which the Committee reviews its instructions to the Manager of the Account. There are a number of other reports, however, which help to fill out the broader picture of developments, in order to provide senior officials with the full range of information that they may need. The kinds of information have already been described, principally in Section VI, where the work of the Trading Desk as an observation post, as well as a nerve center of action, has been reviewed in some detail. It is only necessary here to enumerate the various forms in which the variety of observations, the action taken, and the considerations underlying all decisions are transmitted in greater detail to the various senior officials.

One means, of spot significance during the course of the day, consists of two brief telegrams composed at the Trading Desk and sent directly to each Federal Reserve Bank President and the senior officers at the various Branches, summarizing the outstanding current developments in the Government securities market and the money market, one in midmorning, the other at the close. Another consists in routine telephone reports giving current quotations of outstanding marketable Government securities and mentioning highlights of market developments, which are made by the various traders on the Desk to staff representatives at the Board of Governors. Comparable reports concerning those aspects of market developments of interest to the Treasury are also made directly to a Treasury staff representative who maintains records that the senior Treasury officials may wish to consult during the course of the day.

Then at the close of the day, a written report is prepared in somewhat greater detail summarizing all statistical indicators of market developments, as well as the record of System transactions, and including a brief paragraph or two describing the principal developments in the money market and the Government securities market. This report is prepared by the Research Department and transmitted to all members of the Board of Governors and all Federal Reserve Bank Presidents by overnight mail. Much of the information included, and the paragraphs summarizing market conditions, are supplied to the Research Department by traders who have responsibility for information included in various segments of the report.

At the end of each statement week, a rather extensive written report, with detailed statistical appendices, summarizing developments in all of the markets and reviewing all action taken by the Account Management, including as well a step-by-step review of the considerations underlying the decisions taken on each day, is prepared for transmission to all senior officials in the Federal Reserve System. Although original drafts of all sections of this report are prepared either by various members of the trading staff, or by economists in the Research Department, the final version of the report is edited, and often extensively expanded with respect to the analysis underlying decisions taken, by any or all of the officers of the Securities Department. The Manager, Reports and Analysis, has primary responsibility for preparation of the report. It is never signed by the Manager of the System Open Market Account, however, without having absorbed several hours of his time as well.

Then, as already mentioned, a further report for the period since the last meeting, covering the same scope as the weekly reports in more general form, and also accompanied by projections of factors affecting reserves as well as by statistical appendices (which are somewhat less detailed than those which accompany the weekly reports) is prepared shortly in advance of each meeting of the Federal Open Market Committee. Since this must be dispatched to each member in order to reach him before he departs for attendance at the meeting in Washington, there is also a further brief interval which elapses prior to the meeting, during which time subsequent developments occur. A supplementary report covering this brief interval, prepared jointly by the Research staff and the officers of the Securities function on the evening preceding the meeting of the Committee, is placed before each member of the Committee as it assembles. Again, the Manager, Reports and Analysis, has responsibility for these reports, but the Research Department ordinarily supplies the first drafts.

Four times a year these special reports prepared for each meeting of the Federal Open Market Committee are stretched out over a full quarterly period, in order to give the members of the Committee a somewhat longer view of the pattern of developments and the course of the decisions that have been taken in executing Committee directives over this interval. Then over and above all other reports, shortly after the end of each calendar year, a broad general summary of the major steps taken by the System Account Management during the year is prepared jointly by the staffs of the Research Department and of the Securities Department, and edited by the officers. This, too, is delivered to all members of the Federal Open Market Committee and to all other Presidents not currently serving on the Committee.

These are the regular reports. In addition, special reports are prepared and sent to the Committee on virtually every change that may be contemplated in adapting operating procedures to changing market practices. And comprehensive memoranda and records are prepared for the files on a great variety of actual operations, in order to be able to provide the Committee with a full review if any question were ever to arise in the future concerning the execution of any of these transactions.

High in importance, too, are the actual visits of senior Federal Reserve officials to the Trading Room — not glimpses of a few minutes, but extended periods spent in close contact with the job being done. Visual awareness, at least in this complex area, is an important aid to intelligible communication.

It is in all of these varied ways that attempts are currently made to assure full communication with all senior officials in the Federal Reserve System concerning the many aspects of market events and the steps to be taken in the day-by-day execution of System transactions. The Trading Desk has a heavy burden of accountability in its daily attempt to do the best that can be done toward fulfilling the Committee's instructions.

X. Conclusion: The Fusing of "Defensive" and "Dynamic" Responsibilities in Open Market Operations

There is always, in the press and in public comment generally, an understandable urge to identify specific changes in System holdings of Government securities, from week to week, with the more dramatic aspects of general credit policy. An increase in holdings means that reserves are being supplied; money, it may be concluded, is going to become easier. A reduction means that reserves are being absorbed; Federal Reserve policy, it may be said, appears to have turned tighter. Such observations are not necessarily wrong, but they frequently are. And anyone who has come this far in the reading of this pamphlet would have no difficulty in explaining why.

The key to the riddle, of course, is in the mechanics of the money market and in the complex of factors always at work affecting bank reserves. The textbook writers were not wrong when they wrote that the way to ease the general credit position is to buy securities and thereby ease reserves, or that tightening can be accomplished by selling to absorb reserves. They were just simplifying one integral part of a process that must be learned, and understood, in steps. What we have added here is a description of some of the complications that come in when the Federal Reserve System sets out to use this important tool, open market operations, in the kind of money market that has grown up to serve the fractional reserve banking system that exists in the United States, and in most other developed countries, today.

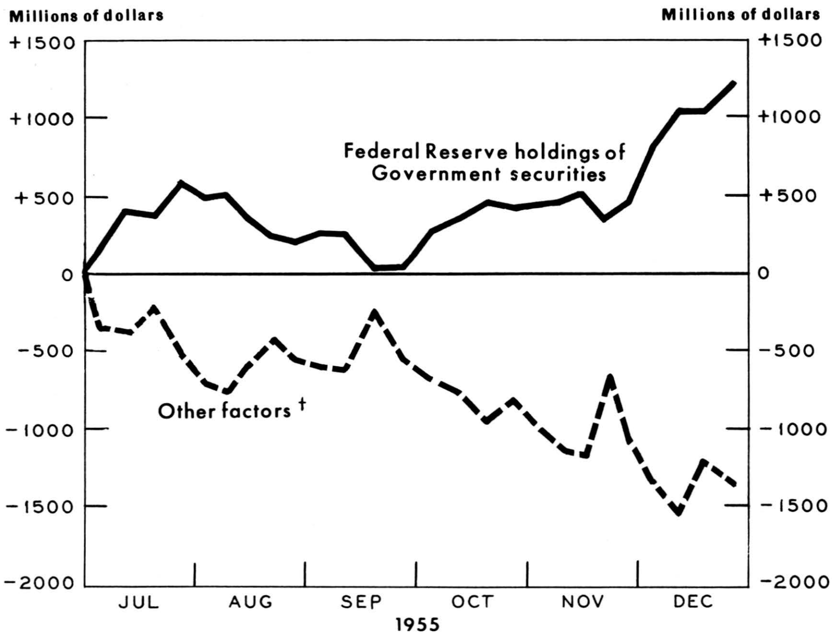
There can scarcely be any question that a fractional reserve system does provide the flexibility, the prompt response to shifting needs, and the capabilities for diversified growth that are essential if the monetary system is to be a propelling, rather than a retarding, force in a modern economy. There is also little if any question that the job of the central bank is both to provide the fuel that the money machine needs, in terms of primary bank reserves and the currency supply, and to act as a governor on the over-all rate at which that fuel is supplied and used, in order to avoid the excesses that might lead the machine to shake itself to pieces and to avoid the shortages that might cause the machine to come gasping to a halt. But it is, in fact, a built-in structural feature of the way today's monetary machine is constructed that some of the central bank's release or absorption of credit will come, involuntarily, from the swings of float and circulating currency; some will come, too, from the incidence of fluctuations in the Treasury's balance, or in foreign balances, at the Federal Reserve Banks. These factors, as well as changes in the amount of required reserves of member banks, and other lesser factors not mentioned here, are all a part of the apparatus that is supplying or absorbing reserves every day, on balance, whether or not the Federal Reserve System takes any action on its own initiative to influence the outstanding volume of bank reserves.

Chart 3 on page 102 shows the net of all those other factors, with the greatest swings dampened through use of weekly averages, for the last half of 1955. What stands out most, in comparing that line on the chart with the line representing cumulative Federal Reserve purchases or sales (on a weekly average basis), is that by far the greater part of the System Account's operations through that six-month period apparently consisted in offsetting an irregular, but in the end a substantial, absorption of reserves by these other factors (in combination). What may also appear, on further study, is that the Federal Reserve purchases did not quite equal the reserve absorption. Does that have any significant meaning? It does indeed, for throughout this period the System

Chart 3

CHANGES IN FEDERAL RESERVE HOLDINGS OF GOVERNMENT SECURITIES AND OTHER MARKET FACTORS AFFECTING LEVEL OF RESERVES*

(+) or (-) indicates effect on free reserves



* Cumulative changes in daily averages for statement weeks July 6 through December 28, 1955.
† Excludes member bank borrowing from the Federal Reserve Banks.

was pursuing a generally restrictive credit policy, seeing to it that restrictive pressures on the banking system were maintained, and at times increased. The action of the other factors by themselves, however, would have produced a net reduction over this six-month period of almost 1½ billion dollars in bank reserves. If not offset, this reduction would have meant an effective shrinkage of more than 7 per cent in the reserve base. That would have been restriction with a vengeance, and scarcely consistent with the balancing role, resisting inflation while providing sufficient reserves to finance nonspeculative business needs, which the Federal Reserve was pursuing through this period. What the Federal Reserve did, therefore, in getting the degree of restrictive pressure desired, was simply to offset most, but not all, of the pressure originating from the changes in these other factors.[12]

There are several important conclusions which this chart and a study of the period suggest — conclusions that should emerge, too, from the variety of observations on markets, procedures, and principles in the nine preceding sections of this booklet.

One is that System Account purchases or sales, while always made with a view to effecting the general degree of reserve pressure intended by the Committee, can never be taken alone as a signal of the actual credit policy being pursued. Here is a period consisting almost entirely of purchases, when the *dynamic* policy was actually one of restraint, and paradoxically enough the restraint was in fact achieved. The secret was, as we know, in keeping close watch on the absorption of reserves by other factors, and then taking action day by day, to offset only enough of the reserve absorption to prevent the creation of even tighter conditions in the money market than the policy of the Federal Open Market Committee intended.

This points to a second conclusion: It is often possible to take advantage of conditions or changes in reserves, and in market psychology, that are being produced by other factors, thereby making overt action by the Federal Reserve unnecessary. Thus, in many weeks when Federal Reserve policy is penetrating with pervasive effect throughout the money market, no change at all may be visible in the holdings of the System Account.

Third, as a result of the conditions that underlie the first two conclusions, the actual course of System Account purchases and sales alone from week to

[12]Any reader interested in the policy aspects of this period, or in the full range of Federal Reserve System influence, including the use of the discount rate and the restrictive influence of an increasing volume of member bank borrowing, is referred to the *Annual Report* of the Board of Governors of the Federal Reserve System for 1955, the *Annual Reports* of the various Federal Reserve Banks for that year, and to the *Annual Report* and relevant issues of the *Monthly Review* of the Federal Reserve Bank of New York.

week is likely to appear irresolute, if not capricious, unless interpreted in the broader context suggested here. It is perhaps another paradox that the moving averages, or the grand aggregates, of statistical data come out as well as they do after the event only because the Trading Desk and the money market are operating largely on the basis of something else — the "feel" of each day's market, which has disappeared by the time comprehensive statistics are prepared. Indeed, the real force of Federal Reserve policy as executed by the Trading Desk is exerted on the various institutions of the money market, and their reactions are in turn transmitted to others, on the basis of such a variety of fast moving signals that many of the immediate signals used in deciding upon action or inaction during the course of a given day will never be publicly recorded in available current data published after the event. It is also because a reasonably smooth and coherent execution of policy, at the actual firing line, must depend upon close integration of Federal Reserve action or inaction with the effects of the many changes occurring in other factors that no formula can be laid down to determine in advance the precise timing, or amount, or form of Federal Reserve action.

Fourth, the student interested in knowing "what policy is" and prepared to analyze the complex of all daily and weekly published data can generally come fairly close to knowing in a short time — close enough to justify the well-imbedded maxim of all central banks that detailed explanations of each policy step, as taken, are unnecessary, and create rigidities that may handicap the full flexibility needed for close adaptation of action to quickly changing money market conditions. The characteristically detailed annual reviews of the record, published by the Board of Governors and most Federal Reserve Banks, the monthly *Federal Reserve Bulletin,* and the New York Reserve Bank's *Monthly Review,* provide enough analysis of what was done, and why, soon enough after the events, to permit the specialist to acquire the body of knowledge which can equip him to make informed judgments of later data and developments. This does mean, however, that the interpretation of central bank action, and the evaluation of its influence, has become, like many other things in this modern day, a zone reserved largely for the specialists. That need not be harmful so long as those who try to interpret and evaluate can appreciate the full nature of their task, and so long as there are enough who will make the effort to give assurance that the mistakes of some will be corrected by others.

All of these conclusions have their origin, of course, in the dual nature of the Federal Reserve System's responsibilities that was stressed at the beginning of this booklet: the *defensive,* avoiding mechanical disturbances that could interfere with the smooth functioning of the monetary system, and the *dynamic,* using the potentialities of control over the reserve base of a fractional reserve banking system to help promote economic growth within a pattern of sustained stability. It should be clear now, at least with respect to open market operations, that there has in fact been a fusion of both types of responsibility. The uppermost concern at the Trading Desk every day is that the prevailing degree of pressure intended by the Federal Open Market Committee's policy (the *dynamic* aspect of the System's responsibilities) shall emerge from the day's confusion as a dominating force. Yet the specific action taken, more often than not, is directed toward offsetting or cushioning the effect of some mechanical by-product of the physical flow of payments (a *defensive* operation). There is no need, of course, to sort out these two sides of specific questions as they confront the Trading Desk each day; it has long since become second nature to the operating personnel to handle each problem with its *defensive* and its *dynamic* aspects joined together. The difference, in contrast to much of the public discussion of System Open Market Operations, however, is that the public view very often ignores the *defensive* aspects altogether. This long trip through the markets and procedures of mid-1956 will have been worth while if it helps in any way to broaden awareness of the inevitable interrelations of these two responsibilities.

FEDERAL RESERVE PUBLICATIONS

The following publications are available free (except where a charge is indicated) from any Federal Reserve Bank (see addresses below for the one nearest you) or the Board of Governors of the Federal Reserve System, Washington 25, D.C.

1. THE FEDERAL RESERVE SYSTEM, PURPOSES AND FUNCTIONS. A 320-page booklet explaining the structure, objectives, and methods of operations of the Federal Reserve System.

2. MONEY: MASTER OR SERVANT? A 48-page booklet explaining in non-technical language the role of money and banking in our economy. The booklet describes briefly the structure of our money economy and discusses the power of commercial banks to create money, the function of bank reserves, and the methods the Federal Reserve System uses to influence the cost, supply, and availability of credit, as it seeks to encourage balanced economic growth at high levels of employment.

3. THE MONEY SIDE OF "THE STREET". A 103-page account of the workings of the New York money market including a discussion of the functions and usefulness of the short-term wholesale money market and of its role in the operations of the Federal Reserve. 70 cents per copy; 35 cents a copy on orders from educational institutions.

4. THE QUEST FOR STABILITY. A 54-page booklet of five essays describing efforts to achieve an efficient monetary system in the United States.

5. OPEN MARKET OPERATIONS. A 43-page booklet describing in layman's language how open market operations in the U.S. Government Securities are used to cope with monetary stresses and promote a healthy economy.

6. READINGS ON MONEY. A 58-page booklet discussing the nature of money and the processes of its creation and circulation. Articles include the rising money supply, currency and coin, kinds of currency and coin, demand deposits, bank reserves, money lenders, and the Federal Reserve System.

7. DEPOSIT VELOCITY AND ITS SIGNIFICANCE. An 88-page booklet on the behavior of deposit velocity over the business cycle and over long periods. 60 cents per copy; 30 cents per copy on orders from educational institutions.

8. HOW TO INTERPRET FEDERAL RESERVE REPORTS. A 40-page booklet analyzing reports of member banks and of the Federal Reserve Banks, including the weekly statement. An appendix contains copies of various Federal Reserve reports and a glossary of terms.

9. Modern Money Mechanics: A Workbook on Deposits, Currency, and Bank Reserves. A 31-page booklet explaining the mechanics of money creation. The "T" account technique is used to illustrate how bank deposits expand or contract and how miscellaneous factors affect bank re-reserves.

10. Monetary Policy: Decision–Making, Tools and Objectives: A 52-page booklet of articles dealing with the relationship between the government and the central bank, the decision-making process in implementing monetary policy, the conduct of open market operations and discount rate policy, and the role of monetary policy in promoting economic growth.

11. Monetary Policy Under the International Gold Standard: 1880-1914. A 62-page analysis of the performance and policies of central banks under the pre-1914 gold standard in the light of current monetary and banking theory. 50 cents per copy; 25 cents per copy on orders from educational institutions.

Each of the Reserve Banks also publishes a monthly review of credit and business developments which will be sent regularly to those requesting it. The Board of Governors publishes the *Federal Reserve Bulletin* monthly; an annual subscription in the United States costs $6.00.

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