Treasury-Federal Reserve Study of
the U. S. Government Securities Market

TECHNIQUES OF THE FEDERAL RESERVE TRADING DESK IN THE 1960'S CONTRASTED WITH THE "BILLS PREFERABLY" PERIOD

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Techniques of the Federal Reserve Trading Desk
in the 1960's Contrasted with the "Bills Preferably" Period

Foreword

The following paper was developed at the Federal Reserve Bank of New York as part of the joint Treasury-Federal Reserve Study of the Government securities market begun in 1966. It describes candidly the principal techniques employed by the Trading Desk of the Federal Reserve Bank of New York in its daily approach to the market during two broad periods in the past. The paper is being published for the purpose of promoting a better understanding among dealers and other market participants, of the rationale behind the choice of techniques by the Desk, and to give the general public an insight into this highly specialized area. Such understanding is vitally necessary so that market participants, both old and new, might continue to provide the System and Treasury with the maximum cooperation that is necessary for them to carry out their tremendous responsibilities in the areas of monetary policy and debt management.

Introduction

The constantly changing character of Federal Reserve open market operations is reflected in the variety of techniques employed by the Trading Desk of the Federal Reserve Bank of New York in its day-to-day contact with the Government securities market. This is true whether the Trading Desk is operating for the System Open Market Account or for others such as Treasury investment accounts or foreign correspondents. In handling all of these transactions, the Desk endeavors to accomplish its objectives in a way that will be the most beneficial (or the least harmful) to the longer run vitality of the Government securities market. In determining what specific techniques of approach to the market are to be used, the Account Management must be guided by the following general considerations:

1. The objectives of the Federal Open Market Committee. Certain techniques are more useful than others to accomplish particular objectives and the Desk varies its approach to the market as the Committee's objectives change.

2. The total market environment. The market may be more receptive to the use of some techniques than others at a given time, and both dealers and investors may have to be encouraged to accept the use of new or unusual techniques should they become necessary. Under most circumstances, the Desk must consider the probable psychological effect of its choice of techniques even in its routine approaches to the market.

3. The limitations imposed on the Desk by the Federal Open Market Committee. The Committee, in a continuing authority directive issued annually to the Federal Reserve Bank of New York, subject to change from time to time, and by other means, approves the use of some techniques specifically, and others by implication. Therefore, the propriety of using any technique depends on whether it currently meets with the approval of the Committee.

4. The necessity of adapting techniques to meet temporary emergencies or changes in general market environment. The Desk may have to employ unusual methods summarily at times of emergency and must also be alert to longer range changes in market environment and System objectives so that it may propose to the Committee necessary or desirable changes in approach that require consideration and approval before they may be used.

Within the limitations placed upon the Desk by market conditions and the Federal Open Market Committee, the choice of techniques to be used at any given time is governed mainly by the purpose to be achieved by the open market operations. Under most circumstances, operations for the System's own account are undertaken mainly to supply or absorb member bank reserves, while those for other accounts are usually for the purpose of investing or raising funds. At times, other purposes become intermingled with or supersede reserve and investment objectives, and the choice of techniques is influenced accordingly.

All of the above considerations exerted an influence on the Desk's choice of techniques during the "bills preferably" period (1953-1960) and in the changes in approach during the 1960's. Therefore, a review of each period for the purpose of comparison begins with a brief outline of System objectives, market environment, and Federal Open Market Committee guidelines to the Desk. After establishing the background of each period, this paper describes the most important techniques used in order to arrive at the principal changes in approach. Emphasis has been placed on the way operations were conducted rather than on the mere size or frequency of such operations. Suffice to say that the operations have been very large compared with the activities of other participants in the market and have expanded substantially over the years. In 1966, the Desk handled combined purchases and sales of $48.0 billion of Government securities, $26.2 billion for System Account, $19.6 billion for foreign and international accounts, $2.1 billion for Treasury accounts, and $115 million for member banks and other accounts. In addition, $9.9 billion repurchase agreements were made with dealers against Government and Agency securities during the year.

The "Bills Preferably" Period (1953-1960)

Background

The "bills preferably" period emerged from the final throes of war and postwar official control of the Government securities market. The Treasury-Federal Reserve Accord of 1951 was followed by the gradual withdrawal of System support from the market, first in outstanding issues and, beginning in December 1952, in Treasury financings as well. In order to assure market participants that System support was definitely over and thus to foster the rapid development of a free self-sustaining market, the Federal Open Market Committee adopted in 1953 certain guidelines with respect to open market operations. These guidelines, known as operating policies, grew out of a study of the Government securities market in 1952 by an Ad Hoc Subcommittee of the Federal Open Market Committee, which gathered extensive material from the market, including the views and recommendations of dealers. The operating policies were made public and were in effect during the remainder of the 1950's. They limited normal System open market operations strictly to short-term securities, renounced any intention to maintain any pattern of prices and yields or to support Treasury financing operations by purchases of "rights", "when-issued" obligations, or comparable maturities. They also stated that System open market operations would be undertaken solely for the purpose of providing or absorbing reserves (except in the correction of disorderly markets), and would not include swaps for the purpose of altering the maturity pattern of the System's portfolio. (See exhibit A.)

In practice, normal System open market operations were limited to Treasury bills from the time the operating policies were adopted in 1953 until late 1960. The System bought coupon issues on only two occasions, once in 1955 when it was deemed necessary to support a foundering Treasury financing by purchases of "when-issued" securities, and again in 1958 when disorderly market conditions prompted System purchases of "rights", "when-issued", and other coupon issues. Some short-term coupon issues were also sold early in 1957 when System holdings of Treasury bills dropped to a very low level. Throughout the period, therefore, the techniques employed by the Desk were governed by the Committee's clear-cut and publicly known objective of operating solely to affect reserves, by a market environment based on the assumption that the System would normally operate only in Treasury bills, and by rather severe limitations imposed on the Desk's choice of techniques by the operating policies of the Federal Open Market Committee.

Techniques Employed - The "Go-Around"

The basic and most regularly used method of approach to the market throughout the "bills preferably" period was the simultaneous request for bids or offerings of Treasury bills from all dealers with whom the Desk regularly transacted business. This method, widely known as a "go-around", was developed in early 1954. It was designed mainly to provide assurance that the prices at which the System bought and sold Treasury bills were the best obtainable in the market at the time of each operation. It also served to alert all dealers at once to the fact that the System was buying or selling, so that no dealer would be without this knowledge in forming and modifying his appraisal of market conditions and prospects. Finally, the "go-around" gave each dealer an equal opportunity to compete for System business, with best price the determinant of which dealers were successful. The time allowed for dealer responses in "go-arounds" was kept as short as possible in order to insure that they would be made largely against existing dealer positions and to avoid immobilizing the bill market for an unduly long period.

In a typical "go-around" of the market to buy Treasury bills, each trader on the Desk contacts several dealers (say, two to four, depending on the number of traders available at the time of the operation) to ask for firm offerings of Treasury bills, i.e., offerings which cannot be changed or withdrawn for a reasonable time without the consent of the Desk. Limitations on amount, if any, the range of maturity of the bills, and delivery (cash or regular) are stated in the request for offerings. Within a few minutes all dealers are contacted and very shortly thereafter all offerings are received and tabulated. They are then compared and the most attractive offerings from the standpoint of maturity and price are selected for purchase. The traders then call the dealers back and inform them which offerings are accepted and which rejected. The entire operation may take from about twenty to forty-five minutes, depending upon how many issues of bills are included in the request for offerings, the size and number of the offerings and of the System's purchases, and whether one or more delivery dates are involved.

The "go-around" technique was especially adaptable to open market operations that were normally confined to Treasury bills, as they were during this period. The large size of most individual System operations made it feasible for the Desk to contact all dealers at once as a general rule, and usually to ask for bids or offerings of all bill maturities. In most cases, System purchases or sales were of sufficient size to be meaningful relative to the total bids or offerings received by the Desk. Moreover, the market for Treasury bills was usually broad enough to absorb the impact of sizable System purchases or sales without undue gyrations in rates.

The appearance of the System in the market on a "go-around" quickly became routine, although it was always an important factor to be considered by dealers, banks, and other investors in appraising conditions in the money and securities markets. Under most circumstances, dealers were willing to make significant bids or offerings within the current market quotations at the System's request. The amounts and rates of discount involved reflected, of course, the pressure of demand and/or supply and the dealers' appraisal of current market conditions and future prospects.

"Go-arounds" were used not only for System operations but, on occasion, for unusually large foreign account transactions, and to a lesser extent, for Treasury account orders. Either independent "go-arounds" were conducted for these accounts when the System was inactive or, at times when the direction of the other transactions coincided with a System operation, they were sometimes coordinated with the System "go-around". Thus, the bids or offerings generated by the "go-around" were available to satisfy both the System's need and the other orders.

Modification and Avoidance of "Go-Arounds"

Almost from the start, it was found that under some conditions it was advisable to contact all dealers over a longer period of time, rather than simultaneously. This modification of the "go-around" technique was deemed appropriate at times of spotty demand or supply or when the Desk wanted to soften the psychological impact of its operations on the market. Thus, each dealer still had an opportunity to compete for the System's business during the course of several hours but was less likely to recognize and react to the transactions with him as part of a large-scale, across-the-board System operation.

There were also times when it was felt that a complete canvass of the market, even over an extended portion of the day, would exert an undue influence on the market and might actually prevent the Desk from accomplishing its reserve objectives if the market reacted adversely. In March 1955, the

Committee agreed that the Desk might conduct operations for the System, under appropriate market conditions, without contacting all dealers. Such purchases and sales were made by responding to bids or offerings initiated by individual dealers during the day or prompted by the Desk from a dealer thought to have a special demand or source of supply. In such cases, enough dealers were contacted to establish the rates on the issues involved as being reasonable. Quotations routinely supplied to the Desk by dealers for the Trading Room quotation board, as well as the general information about market conditions and price levels constantly being acquired by the traders in the course of their telephone conversations with various dealers, also served as a check on the prices paid by the Desk at these times.

Although this method of operation served the System's purposes best at times, its use occasionally aroused the resentment of some dealers that were not contacted for bids or offerings on a given day. The objections of those dealers not contacted were raised, not always because there was no opportunity to compete for the business (which they probably could not have handled anyway under the existing market conditions), but more often because they were not immediately informed of the System's entrance into the market. Therefore, they considered that they were temporarily put at a competitive disadvantage or, conversely, that the dealers contacted had a temporary advantage in knowing that the System was active in the market. However, a dealer could enhance the likelihood of his being contacted on such days by keeping the Desk constantly informed as to his best bids and offerings for a wide variety of Treasury bill maturities.

During the "bills preferably" period, the "go-around", either of the simultaneous or modified variety ways avoided only when there were compelling reasons to do so. The most frequent occasion for avoidance occurred when a contemplated System operation was too small to warrant "stirring up the market" with a complete canvass. It was found that a "go-around" to buy or sell a small amount of Treasury bills might exert a disproportionate influence on the market because of disappointment that the operation was not larger relative to the size of dealers' bids or offerings. The disappointment was even reflected on some occasions in a rise in Treasury bill rates following relatively small System purchases and a decline in rates following small System sales. At times, a very thin market on the side of the System's operation made a "go-around" inadvisable because the System operation might aggravate the rate movements already in process. Such a situation developed in the fall of 1956, when it was necessary to absorb a substantial amount of reserves through sales of Treasury bills in the face of a tight money market and sharply rising Treasury bill rates. Under these circumstances, there was no general demand for Treasury bills. Many dealers had no interest in bidding for them and would have raised their rates still further if they were confronted with a System "go-around" to ask for bids. Rather than aggravate the poor market situation, sales were made gradually in response to known demand reflected by individual dealers actually in touch with the few buyers in the market. Occasionally, special circumstances, such as approaching Treasury bill auctions and other Treasury financing made it desirable to avoid the psychological effect of a "go-around" because of possible adverse repercussions in the market.

Cash vs Regular Delivery

At the outset of the "bills preferably" period, all System Account transactions were for regular delivery, i.e., the delivery and settlement occurred on the day after the commitment was made. Midway through 1954, the Desk was authorized by the Federal Open Market Committee to buy and sell bills for immediate delivery and settlement, in other words, for "cash". This technique, enabling the

Desk to exert an immediate effect on reserves through outright purchases or sales of Treasury bills, was quickly found to be extremely useful. It enabled the Desk to defer open market operations an extra day when the accuracy of daily reserve statistics was questionable or when the outlook for a statement week was unusually obscure. It also permitted the Desk to get an earlier start in providing or absorbing reserves in a new statement week by acting for cash on Thursday (assuming that the need for action was not yet clear on the previous day) and to take final action to affect reserves on Wednesday if large deviations in other factors unexpectedly changed what had been considered a satisfactory level of reserves for the week just ending. During 1955, the first full year it was used, 40 per cent of System purchases and 12 per cent of System sales were for cash delivery. (The usefulness increased steadily over the years and in 1966 80 per cent of System purchases and 98 per cent of System sales were for cash--excluding matched sale-purchase transactions.) Transactions for regular delivery were mainly in coupon issues, which are not as readily tradeable in the market for cash.

In transacting business for cash, the approach to the market was the same, i.e., "go-around", modified "go-around", or response to dealers' bids or offerings. Many times, transactions for cash and regular delivery were undertaken together in the same "go-around" or other type of operation, dealers being asked to bid or offer for either delivery, at their option. Determination of the amounts actually bought or sold for cash or regular delivery depended on the nature of the dealers' response and the urgency of the System's reserve objectives. In cash trading, of course, the time element became much more important. Operations for cash had to be undertaken as early in the day as possible--with a deadline of about 1:30 p.m.--in order to avoid delivery or dealer financing problems. Most operations for cash were undertaken between 11:30 a.m. and 12:30 p.m.

Crossing Securities Between Accounts

Although it was a matter of policy for the Desk to execute most orders to buy and sell securities for various accounts independently in the market, it was found useful at times to deal directly with or between various accounts, i.e., to cross Treasury bills between the System Account and foreign accounts, between foreign accounts, or between foreign and Treasury accounts. (As a matter of policy, securities are not crossed between Treasury Accounts and the System.) Crosses between the System Account and foreign accounts were usually undertaken to accomplish reserve objectives of the Desk, i.e., the Desk could supply or absorb reserves by buying or selling the Treasury bills involved in foreign account orders. There were also occasions when market conditions were such that it was thought advisable not to burden the thin side of the market with sizable foreign account transactions if it was convenient from a reserve standpoint to cross them with the System Account.

Crosses between foreign accounts, or between foreign and Treasury accounts were undertaken relatively infrequently. Offsetting transactions for these accounts have no reserve effect to concern the Desk and the basic approach was to transact as much of this business as possible through normal market channels. On some occasions, however, large transfers of funds between or among various accounts gave rise to nearly simultaneous purchase and sale orders involving the same securities. In such cases, it was not thought desirable to stir up the market with large transactions that would not result in any net demand or supply, or to sell securities for one account that were needed for another account.

Whenever it was feasible, the bills were crossed between accounts through the market, i.e., simultaneous purchase and sale transactions in the issues involved were executed with a dealer. A small spread in rates was allowed to compensate the dealer for handling costs and to provide a small return for his services. In distributing this riskless and offsetting business, the Desk usually rotated among dealers so that over a period of time, each dealer would have an opportunity to participate in it.

There were occasions when it was considered inadvisable to cross these transactions through the market because their sheer size might permit the dealer involved to deduce confidential collateral operations of foreign central banks (or Treasury investment accounts) that might have implications for the money, securities, or foreign exchange markets. At these times, the bills were crossed directly between the System Account and the foreign accounts, or among the other accounts, within the confines of the Trading Room. The rates at which these transactions were executed were usually the middle of the known market for the issues involved as revealed by the quotation board, unless actual bids and offerings being made for those issues at dealers' initiative, and general information on market trends and conditions routinely obtained by traders during the course of the day, suggested that other rates were more realistic.

Foreign Account Transactions

Transactions for foreign accounts were mainly in Treasury bills and other very short-term securities. As noted above, foreign account operations in Treasury bills were sometimes undertaken in conjunction with those for the System Open Market Account and at other times by means of offsetting transactions between foreign accounts. However, the majority of foreign account transactions were undertaken through individual purchases or sales in the market. Because of the erratic flow of these orders throughout the day and the relatively small size of accumulated orders at any given time, it was not practical to conduct constantly recurring "go-arounds" to execute the orders. Therefore, upon receipt of a foreign account order, or group of orders to buy or sell securities, one or more traders on the Desk would contact several dealers to ask for bids or offerings of the issues involved. The number of dealers contacted would depend upon the size of the transactions and the number of inquiries deemed necessary to assure the best price for the foreign accounts. In choosing the particular dealers to be contacted, the traders were guided by the quotations on the price board, bids and offerings made to the Desk by various dealers during the day, and any other information regarding potential demand or supply gleaned by the traders in their routine talks with dealers about market conditions. To the extent possible, traders attempted to spread the opportunities to do this business equitably among dealers, carefully watching monthly reports on the share of the Desk's business obtained by each dealer. However, price was the ultimate determinant of where individual purchase or sale orders were placed, and some dealers obtained a larger share of the business than others by consistently bidding for or offering securities at better prices than their competitors.

In handling routine foreign account orders, traders on the Desk would vary their approach to the market, depending upon the size of the orders and the market conditions prevailing. For example, under "normal" market conditions, a $5 million, $10 million, or even $25 million order might be revealed in full to each dealer contacted by asking him to bid for or offer the entire $5 million, $10 million, or $25 million of securities. On larger orders (say $50 million or $100 million) each dealer contacted might be asked to bid for or offer the issue or issues involved with no amount specified, leaving the size of his prospective participation up to him. In such a case, dealers might bid for or offer $5 million, $50 million, or $100 million, depending upon their own situations in the issue specified. However, if the market was very "thin" and likely to be unduly affected by such a request (or by the knowledge that a large order was being executed), each dealer contacted might still be asked to bid for or offer only

$5 million or $10 million, and smaller dealers even less. The $50 million order would then be divided among those dealers quoting the best rates. This method was designed mainly to soften the psychological and price effects of a large purchase or sale order although it also had the effect of spreading the business handled by the Desk over a greater number of dealers since small dealers would not ordinarily be asked to bid on or offer $50 million or $100 million of securities all at once. This approach has been used much less frequently since 1966 than it was earlier.

Operations in Coupon Issues

On the two occasions during the "bills preferably" period when the System bought coupon issues, the method of approach to the market was tailored to the circumstances that prompted the departure from the operating policies. In November 1955, the securities purchased were "when-issued" certificates of indebtedness involved in a very poorly received Treasury offering. On the same day, large purchases of a "when-issued" Treasury note were also being made for Treasury investment accounts. With the market under extreme pressure, offerings of both "when-issued" securities were being made to the Desk constantly by most of the dealers throughout the day. The objective of the System buying was mainly to prevent the price of the "when-issued" certificate from declining below par, and all but $3 million out of $167 million purchases were priced at par, with the remainder at 99 63/64. Most purchases were made simply by responding to offerings made at the dealers' initiative, although the Desk also contacted various dealers during the day to discuss their experience in the refunding issues and to encourage them to make offerings of "when-issued" securities if they had not done so.

The other purchases of coupon issues during the "bills preferably" period occurred in July 1958 when sharp and prolonged downward movements in

Treasury bond prices, the development of an international and political crisis in the Middle East, and the threat of failure of a major Treasury refunding operation culminated in a disorderly market. The Manager of the Account was authorized on July 18, 1958 to buy Government securities in any maturity sector and it was announced on the Dow Jones News Ticker that the Manager was authorized "to purchase Government securities in addition to short-term Government securities". A few offerings of various notes and bonds being made at the initiative of dealers were immediately bought by the Desk, but further offerings dried up temporarily and the Desk did not encourage dealers to offer additional securities. Over the next few days, however, the Desk made very sizable purchases in response to renewed dealer offerings, mainly of "when-issued" securities involved in the current refunding, and on July 22 a "go-around" was conducted, asking each dealer for offerings of $5 million or $10 million of "rights". All of these operations, involving purchases of $1,265.7 million issues other than Treasury bills, were confined to a single statement week.

The only System sales of coupon issues during the "bills preferably" period were undertaken in February 1957 when the System's outright holdings of Treasury bills dropped to an unworkably low level and policy called for still further absorptions of reserves. The coupon issues involved were very short-term maturities. They were sold on four "go-arounds", each of which produced a disappointing volume of bids. It was concluded at the time that the "go-around" technique was not a practical method of selling securities other than Treasury bills as the market for such issues was not broad and active enough to accommodate this method of selling.

Operations for Treasury Account

During the "bills preferably" period, the Desk operated throughout the maturity range of coupon issues for Treasury investment accounts. Such transactions were undertaken for various purposes such as the routine investment or raising of funds for the accounts, the shifting of maturities by some accounts, and the lending of Treasury support to the Government securities market, particularly at times of Treasury financing. The techniques employed by the Desk in handling these orders varied in accordance with market conditions and with the objectives of the Treasury at the time the orders were given.

Most frequently, buying for the Treasury was accomplished simply by responding to offerings made by dealers at their initiative. This method was most useful during large-scale market support operations when many dealers were offering securities regularly and when it was considered desirable to reveal the fact that there was official intervention in the market. (Since System operations were normally limited to Treasury bills by the operating policies of the Federal Open Market Committee, any official intervention in other areas of the market was readily recognized by the market as stemming from the Treasury.) With the market under pressure, offerings would be made constantly by all dealers anxious to sell securities, and the Desk had only to respond to the offerings in accordance with its instructions from the Treasury. Whether the offerings were taken at one price level or on a declining scale of prices generally depended upon the rapidity of price movements, the size and frequency of the offerings, and the urgency of Treasury objectives. If the Treasury desired to become aggressive in its buying in order to improve the tone of the market, and if offerings were petering out, the Desk might then contact various dealers thought to have the desired securities, solicit offerings, and perhaps take some at higher prices than it had paid previously.

Another method of approach was to place an order with one dealer to buy or sell a certain amount of securities at a specified price or within a price range. The dealer would be allowed a reasonable time to develop interest on the other side, such time running from less than an hour to one or more days, depending on market conditions and the urgency of the Treasury's objectives. The dealer kept in close contact with the Desk and was periodically instructed regarding any changes in the amount involved, the method of approach, and any changes in the acceptable price range. When the order had been executed, the dealer's price to the Desk would allow him a small spread for his services and expenses. Whereupon, the order might be renewed if such action was deemed appropriate, at the same or at different prices. If the order was not executed by the dealer involved within a reasonable time, it would be withdrawn and might be placed with another dealer.

This method was sometimes used to accomplish large-scale investment, divestment, or maturity shifts for both Treasury and foreign accounts at times when the Desk could see no evidence of significant demand or supply for the issues involved or when it appeared that the market might be affected unduly if large-scale official interest were revealed directly to more than one dealer. Maturity shifts, especially, required that investment interest be developed almost simultaneously on both sides of the swap so that the Desk would not get too far out on a limb on either side, and under many market circumstances this could best be accomplished by placing an order with one dealer. At times, this method also served to enable the Desk to form a better appraisal of market conditions, particularly during periods of Treasury financing, with a relatively small expenditure of funds and without unduly stirring up the market by contacting several or all dealers.

Ordinarily, only one of the above methods was used at a given time although the Desk might shift from one to another during the course of the day. For example, in the midst of a Treasury financing, information gained from the experience of a dealer in executing an order placed with him might prompt the Desk to approach other dealers directly to ask for offerings. In such a case, any uncompleted portion of the order placed with the one dealer would first be withdrawn. On other occasions, while an order was out with one dealer, one or more other dealers might unexpectedly approach the Desk with bids or offerings that would satisfy the needs of the Account involved. If the first dealer had already been given a reasonable time to complete the order, it might be withdrawn and the business transacted with the other dealer or dealers, assuming that their prices were satisfactory.

The 1960's

Background

The arrival of the 1960's introduced new problems and new objectives into the conduct of Federal Reserve open market operations. The most pressing problem was the persistence of a sizable deficit in the United States' balance of payments, that depleted the United States gold stock and that produced, in October of 1960, a serious run on gold in the London market. Meanwhile, in contrast with booming economic conditions abroad during the early 1960's, particularly in Britain and West Germany, the United States' economy behaved quite sluggishly, with an unpalatably high rate of unemployment, and needed whatever stimulation could be provided by an easy monetary policy. It was evident, however, that if domestic short-term interest rates were permitted to decline in response to monetary ease, higher rates abroad would attract volatile funds, aggravate capital outflows already in progress, and increase the deficit in the balance of payments. During the two previous periods of active ease in 1954 and 1958, System operations to expand reserves had been accompanied by a decline in Treasury bill rates to the neighborhood of 5/8 of one per cent. The repetition of such a performance, or of any substantial decline in Treasury bill rates, was clearly intolerable in the context of the 1960's.

Faced with this situation, the Federal Open Market Committee had to adopt and pursue some objectives, however limited, with respect to interest rates. This was in direct contrast with the Committee's policy of scrupulously avoiding any specific interest rate objectives throughout the "bills preferably" period. Beginning in late 1960, it became an important purpose of the Committee to minimize further declines (or to foster some rise) in short-term interest rates, particularly in the rate for three-month Treasury bills, which was watched intently here and abroad as a criterion of international rate relationships.

It was readily apparent that one way to minimize downward pressures on short-term rates would be to spread System purchases of securities to supply reserves over a wider range of maturities, rather than concentrating such purchases, as in the past, in the very sector of the market where it was desired to keep rates up. Therefore, the Committee gradually abandoned its policy of restricting operations exclusively to the short-term area of the market (Treasury bills in practice). Starting late in 1960, coupon issues due within 15 months were purchased along with Treasury bills in order to provide reserves, and very short-term coupon issues, equivalent to Treasury bills in maturity, were sold on occasion in dealing with downward pressures on rates in that area. Beginning in February 1961, the Committee authorized the Desk to operate in issues maturing in up to 10 years and in March 1961, the ten-year limitation was removed. Moreover, the Desk was permitted to make offsetting purchases and sales of securities so that it could sell short-term securities in dealing with downward rate pressures in that area and purchase longer term issues simultaneously or within a very short time if monetary policy did not call for any net absorption of reserves at the time.

The Committee's intention with respect to short-term interest rates was generally understood within the System and was fairly obvious to both dealers and investors in Government securities. To the extent possible, short-term rates were to be kept competitive with comparable rates abroad and Federal Reserve open market operations were to be conducted in such a way as to encourage the accomplishment of that purpose, but without actually seeking to attain or hold any specific level of rates. On the other hand, there was considerable confusion in the market regarding possible System objectives with respect to long-term interest rates.

The Federal Open Market Committee did not publicly espouse any formal policy regarding long-term rates, largely because of the divergent and shifting opinions of the members and staff throughout the period when operations in coupon issues were being discussed, decided upon, initiated and carried out. It was generally recognized that an improved flow of long-term funds, needed to bolster the sagging domestic economy, could probably be stimulated by somewhat lower long-term interest rates. It was also recognized that System purchases of intermediate- and long-term Government securities to supply reserves or to offset sales of short-term issues would absorb some of the floating supply of coupon issues and would tend to influence prices (and rates) as would any other large-scale buying. On the other hand, there never was any clear-cut or formal agreement as to whether a reduction in long-term rates should be a deliberate aim of policy or should be passively accepted, if it occurred, merely as a desirable outcome of shifting some System buying into coupon issues in order to deal with short-term rates. There was agreement on one point, however, that deliberate or not, any System influence on prices should not be permitted to degenerate into pegging rates at any specific level such as occurred during the war and postwar period. In the market, there was much misunderstanding and misinterpretation of the Desk's intentions, especially at times when the Desk was also operating for Treasury accounts. Much stronger long-term rate objectives were attributed to the System than were ever acknowledged by the Federal Open Market Committee acting for itself. The whole program was publicly nicknamed "operation twist", since the official objective was widely thought to be a simultaneous raising of short-term rates and lowering of long-term rates.

In view of the public's fixation on the rate aspects of the change in policy, Chairman Martin made a major statement on the subject in a speech on April 11, 1961 to the Reserve City Bankers in Boca Raton. Noting that <u>levels</u> of interest rates had been overemphasized, he said that the Federal Reserve's object was actually to influence flows of funds in international and domestic channels--"in respect to short-term rates, whether the outflow of funds to foreign centers is being stemmed; and in respect to long-term rates, whether the flow of capital into productive investment activities is being facilitated."

Since late 1960, therefore, the Desk has not been so limited in its choice of techniques as it was during the "bills preferably" period. The operating policies that had governed open market operations between 1953 and 1960 were first suspended and then discontinued.* This enabled the Desk to operate outside the short-term area and to engage in swaps when appropriate. In practice of course, the bulk of operations over any extended period continued to be carried on in Treasury bills, because only the bill market could accommodate the large-scale transactions required to meet the reserve needs of the banking system. The Desk continued to avoid any outright trading for the System in issues involved in Treasury financings or issues of comparable maturity and, as noted above, there was no intention to support or maintain any specific level of prices

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* See Exhibit B, continuing authority directive first issued at meeting on December 19, 1961 and in substantially the same form since.

or yields, especially in the intermediate- and long-term area where the new operations were being undertaken. With the Committee no longer operating solely to affect reserves, the achievement of the broader objectives required greater flexibility in the approach of the Desk to the Market. At the same time, dealers and investors had to adapt themselves to System operations throughout the maturity spectrum and to the necessary refinements and changes in the techniques employed by the Desk.

Techniques Employed

The methods of approach to the market during the early stages of expanding operations beyond Treasury bills were necessarily experimental and were limited by the inherent peculiarities of coupon issues as contrasted with Treasury bills. These peculiarities were not so apparent in the short-term area of the market, i.e., in issues due within 15 months but they became increasingly important as the Desk gradually extended its operations into the intermediate- and long-term area. Even in the short-term area, it was found that in contrast with the normally good two-way market for Treasury bills, purchases of coupon issues could usually be undertaken more readily than sales, confirming the meagre experience of 1957 (see page 15). In general, it was found that the market for coupon issues was normally quite thin and frequently one-sided, and that prices were much more responsive to official operations than were rates for Treasury bills. Moreover, the thinness and one-sidedness of the market increased markedly with the length of maturity, especially beyond the "bank" area of five or ten years. From the start, therefore, it was evident that the Desk would have to adapt its techniques to the peculiarities of the coupon market, and perhaps to develop new methods of approach to operations in those issues.

The purchases of coupon issues due within 15 months in late 1960 were mainly accomplished by responding to offerings made at the dealers' initiative.

On the other hand, sales of very short-term coupon issues were undertaken mainly on "go-arounds" either alone or in conjunction with sales of Treasury bills, in order to secure a maximum effect on short-term rates. When operations were extended into the intermediate area of the market, several "go-arounds" were conducted to buy coupon issues due within 10 years. The results were disappointing. There was an obvious tendency for dealers and investors to withdraw offerings from the market in the hope of higher prices as soon as it became known that a System "go-around" had begun. Moreover, in a typical "go-around", there was no opportunity for dealers to develop additional sources of supply, so that potential System purchases were limited to the securities immediately available at the time the Desk asked for offerings. Therefore, the Desk quickly abandoned the use of "go-arounds" for the purchase of intermediate- and long-term coupon issues except under unusual circumstances.

After a short period of experimentation, it was found that the most practical and most productive method of purchasing intermediate- and long-term issues was for the Desk to respond to offerings made at the dealers' initiative. (Since practically all System transactions in intermediate- and long-term issues involved purchases, the following discussion has been couched in terms of dealer offerings and System purchases, in order to simplify the text.) Accordingly, the Desk developed much more formal records of dealers' offerings, with greater detail as to the time each offering was made, the composite offering price for each active issue at the time, and any changes made by the dealers in amounts or prices during the day. These offerings were not "firm", i.e., they were understood to be subject to change of amount or price, or to complete withdrawal, without notice to the Desk. Therefore, before any business could be transacted, it was necessary for a trader on the Desk to contact the dealers involved and to get the offerings on a firm basis. If a dealer was still willing to sell the securities, and if prices had not changed significantly, the terms of the original offering would usually be made on a firm basis for a reasonable time so that the Desk could compare alternative issues and prices and make a selection. The traders would then go back to the dealers to either accept or reject the offerings that had been made "firm".

This method of buying coupon issues had some important advantages over the "go-around" technique especially during the early part of the 1960's when the Desk was a consistently large-scale buyer of coupon issues for System and/or Treasury account. As dealers became accustomed to frequent buying by the Desk, most of them offered securities to the Desk regularly throughout the day. Thus, even before the Desk indicated its intention to buy securities on a given day, there was available a realistic indication of the potential supply at or close to the current price level. This is in contrast with a typical "go-around", where the size and pricing of potential offerings is obtained only after contacting all dealers, thereby revealing the Desk's interest in buying a sizable amount of securities. Also, the frequency with which dealers increased or decreased the amounts offered, or changed the prices on their offerings, imparted valuable information as to the strength or weakness as well as the breadth or thinness of the market. Another advantage was found in the ability to spread System (and Treasury) purchases over the course of several hours, or over the entire day, instead of confining buying to the 30 or 40 minutes of a "go-around", in which case dealers had little opportunity to contact customers. It was frequently found that once the Desk had purchased some securities, perhaps most of those available at a given time, some dealers developed additional sources of supply and made subsequent offerings to the Desk, often at the same or at even lower prices. Furthermore, there was less chance that the market would be artificially strengthened by the knowledge that there was official buying, since the Desk only approached those dealers who, by their offerings, had already evidenced a willingness and ability to sell securities. In a "go-around", the Desk approaches all dealers indiscriminately and its buying interest may have a disproportionate influence on the outlook of those dealers who have no securities for sale. The dealers naturally assume that if the Desk initiates a "go-around", it definitely intends to buy a substantial amount of securities.

The usefulness and productivity of this method was, of course, dependent upon the day-to-day regularity of dealer offerings to the Desk. During periods of steady and heavy official buying, most dealers maintained a close contact with the Desk, making changes in amounts and prices of their offerings throughout the day, in order to be sure of participating in any business that might transpire. However, after a period of inactivity on the part of the Desk, some dealers tended to become discouraged, and to become lax in making offerings. Then, when the Desk suddenly bought securities, those dealers were not approached. When they subsequently learned of the System buying, they were likely to be disgruntled at having missed an opportunity to participate. For this reason, dealers were constantly encouraged by representatives of the Account Management to reflect their offerings to the Desk daily, whether or not the Desk was currently buying securities. These efforts met with varying degrees of success.

Efforts to Minimize Price Effect

As noted above, the Federal Open Market Committee did not adopt any specific goals with respect to intermediate- and long-term interest rates. Therefore, in buying coupon issues for the System, the Desk consistently tried to exert as little immediate influence on prices as possible and generally did not enter the market unless conditions would permit purchases without undue price effects.

In order to minimize any direct effect on prices, several techniques were employed. Most importantly, System buying was confined as much as possible to days or periods when there was a ready availability of securities in the market. Such availability was usually discernible in the size and frequency of dealer offerings to the Desk and/or in a downward movement of prices. In making its purchases, the Desk tried to avoid paying the full offered side of the market, i.e., the composite offering price, even if reserve objectives had to be modified in order to do so. The Desk also sought to avoid buying large amounts of securities at a given price level when to do so would even suggest an attempt to hold prices. Instead, a reasonable amount of securities (in relation to total offerings) would be purchased at a certain price level and further purchases would be made only after offering prices had been lowered. On the other hand, on a day when offerings were relatively scarce, and the general price level steady, all of the System buying might be accomplished with little or no variation in prices for individual issues. Only on rare occasions did the System buy securities for itself at rising prices--the mere fact that quotations were moving higher would in itself suggest that the possibilities of providing reserves through bond purchases were very limited and probably not worth exploiting. Finally, the Desk consciously attempted to leave some supply of securities in the market after its buying, i.e., to avoid pre-empting all of the securities available in the market at a given time. Thus, by using these techniques, the Desk sought to minimize the direct price effect of its buying to the extent possible, given the substantial size of the operations that were necessary.

Some modifications of these techniques were required in handling buying orders for Treasury investment accounts. Much of this buying was undertaken in direct support of Treasury financing operations and frequently involved an attempt to exercise a constructive influence on the tone of the market even to the extent of holding price levels temporarily. On such occasions, the Desk was apt to be more aggressive in its approach than was the case when it operated to accomplish System reserve objectives. Response to dealers' offerings was still the basic method of buying, but larger amounts might be purchased at a given price level even to the point of deliberately clearing the market of certain issues such as "rights" or "when-issued" securities. At such times, the Desk might also approach dealers with a request for additional offerings and, perhaps, accept some at higher prices than had been paid earlier in the day.

When this type of buying operation occurred during a period of Treasury financing, it was readily recognizable as stemming from Treasury investment accounts rather than from the System, and its more aggressive character was generally accepted as a normal action on the part of the Treasury. At other times, market participants found it difficult, if not impossible, to distinguish between operations undertaken for the System and for the Treasury until the publication of the System's weekly statement on the following Thursday night. This was particularly true in 1961 and early 1962, when both the System and Treasury simultaneously bought a huge volume of securities. Another such period occurred in 1965, when the Treasury undertook sizable purchases for its investment accounts between, as well as during, financing periods. Despite the aggressive character of some of this buying, it was mistakenly attributed to the System, and the market became quite confused as to the real nature of the Desk's objectives.

The techniques described above were used consistently for the purchase of intermediate- and long-term issues during the period from 1961 through 1965. However, after 1963 the size and frequency of official operations in coupon issues, particularly those undertaken for the System, were greatly reduced compared with the early 1960's. As a result, some of the advantages of the techniques described above became less important. Between September 3, 1965 and February 17, 1966 no coupon-bearing securities were purchased by the System and purchases for Treasury investment accounts were once more confined mainly to periods of Treasury financing. During this interval, the Desk began to experiment with "go-arounds" to purchase securities for the Treasury. System operations in coupon issues were again undertaken in the second half of February 1966 and since then all of these purchases have also been made through "go-arounds". Judging by the results over such a short period, the market for coupon issues seems to be more conducive to this type of operation than it was earlier in the 1960's. Five years of experience with System operations outside the Treasury bill area have apparently removed much of the "shock" effect of System purchases on dealers and investors. Moreover, the size and frequency of individual operations have been greatly reduced and the Desk has recently been giving more information regarding its intentions as to the likely size of an operation. Consequently, the appearance of the Desk on a "go-around" does not seem to result automatically in the withdrawal of offerings and the raising of prices and the Desk has generally been able to accomplish its own and the Treasury's objectives by this means.

Identification of Accounts For Which Desk Operates

As suggested above, dealers have found it more difficult in the 1960's than in the 1950's to identify the account for which the Desk is conducting an operation at any given time. In the earlier period, practically all operations in coupon issues were recognized by the dealers as stemming from Treasury investment accounts, since the System Account deliberately confined its normal operations to Treasury bills. The dealers were usually also able to distinguish between operations for the System and for foreign accounts even when System buying or selling was undertaken without a "gc-around". A rather dependable clue was given because the Desk immediately had to check figures with the dealers on face amount, discount (or accrued interest) and proceeds on all transactions for foreign accounts. This was necessary so that the Foreign Department could send out wires to the foreign central banks with confidence that there would be no subsequent changes due to errors of calculation.

The dealers have been much more concerned over their inability to distinguish between System and Treasury operations in coupon issues. There is no dependable clue since the same basic techniques are employed in approaching the market for either agency and it is not necessary to check figures for any of these accounts. Therefore, if the Desk buys coupon issues on a given day, the dealers normally have to await the publication of the weekly banking statistics to see if there is any change in System holdings of notes and bonds. If there is none, it may be assumed that the transactions were undertaken for Treasury investment accounts. Since mid-1966, as an outgrowth of the Treasury-Federal Reserve study of the Government securities market, the Desk has become more willing to identify, in general terms, the account for which it is operating at a given time. Thus, in approaching the market on large-scale transactions, especially those involving a "go-around", the Desk has been informing the dealers whether the operation is for System or Customer Account, and the approximate size of the customer interest. However, the Desk must reserve the right to withhold such information if the nature of operations or market conditions warrant such a course of action in the opinion of the Account Manager.

Operations in the Short-term Area

Despite the abandonment of the "bills preferably" policy, purchases and sales of Treasury bills continued to be the principal means by which the System provided and absorbed reserves during the 1960's. Operations in intermediate- and long-term issues provided a very useful supplement to open market operations, but the supply of coupon issues was never sufficiently large for them to supplant Treasury bills as the major medium of open market purchases, and no serious attempts were made to sell coupon issues. The techniques used in buying and selling Treasury bills were essentially the same as those employed in the 1950's but the attainment of the more varied objectives adopted by the Committee required greater flexibility in the choice of the particular method to be used at a given time.

The increased flexibility was evident in a less frequent use of "go-arounds" as a means of approach to the market, especially in 1961 and 1962. Given the Committee's concern over the level of short-term rates, it was very often advisable to avoid the psychological impact of a full "go-around" when purchases were involved. Therefore, the Desk responded more frequently to offerings made at the initiative of dealers, provided of course that other quotations and the knowledge of market conditions obtained routinely by the Desk's traders confirmed that the prices being paid were the best obtainable for the issues involved. As in the case of coupon issues, this shift in emphasis away from "go-arounds" made it very important for dealers to keep the Desk informed of their bids for and offerings of Treasury bills and of changes in their rates during the day, in order that each dealer might be assured of an equal opportunity to compete for business transacted by the Desk. In the event that purchases of Treasury bills were decided upon, and a "go-around" was not considered appropriate, the Desk would seek to "firm up" those offerings already made to it by dealers. Assuming that the offering sheet provided a realistic indication of the potential supply and of current rate levels--and it usually did--it was frequently not necessary for the Desk to go beyond these offerings in order to accomplish its objectives. By using this technique, the Desk bought Treasury bills from those dealers most eager to sell them, as evidenced by the persistence and pricing of their offerings, and thereby sought to reduce the rate effect of the purchases. Circumstances calling for the use of this technique have occurred much less frequently in the recent past, and during 1966 most System operations in Treasury bills were accomplished by means of "go-arounds" as were those in coupon issues as noted above.

The choice of Treasury bill issues included in each purchase or sale operation also took on added significance in the 1960's. During the "bills preferably" period when operations were undertaken solely to affect reserves, it was not usually important to concentrate buying or selling in particular areas of the bill market. "Go-arounds", and other buying programs as well, did not involve any deliberate discrimination among bill maturities unless the limited size of an operation, unusual market conditions, or the make-up of the System's portfolio suggested that it would be advisable for the Desk to do so.

In contrast, the adoption of short-term rate objectives by the Committee in the 1960's made it necessary for the Desk to pay much more attention to the particular issues of Treasury bills that were bought and sold. The rate for three-month Treasury bills became the focal point of domestic and international attention as an indicator of changing relationships between short-term interest rates in the United States and those abroad, particularly in Canada and the United Kingdom. For this reason it became an important task of the Desk to resist any decline in the three-month bill rate, and in a few surrounding maturities, even though rates of other bills, both longer and shorter, might move lower.

In carrying out this objective, the Desk concentrated its sales of Treasury bills as much as possible in the three-month area, and its purchases in other areas of the bill market. On "go-arounds" to sell bills, dealers were frequently asked to bid just for issues in the three-month area whenever it was felt that sufficient bids would be received to accomplish reserve objectives. Conversely, in buying bills, the request for offerings did not include bills in this area unless the Desk's need for bills was so large that it could not be satisfied without them. The same pattern with respect to maturities was followed, of course, in Treasury bill operations by methods other than "go-arounds". Market participants quickly became aware of this pattern and developed some resistance of their own to recurrent downward pressures on the three-month bill rate.

The securities operations of foreign accounts handled by the Desk also assumed much greater importance during the early 1960's since these transactions were mostly limited to Treasury bills. Such operations became increasingly large and more frequent, and their potential effect on Treasury bill rates had to be considered in the light of System objectives. In handling foreign account transactions the Desk policy has been to place the orders in the market unless there were overriding System objectives that would be served by handling the transactions in another manner. With System objectives closely geared to short-term interest rates there were, in the early 1960's, more frequent occasions when it became desirable to keep foreign account buying out of the market, especially when it involved bills in the three-month area.

In order to accomplish this, the System Account sold bills to the foreign accounts when reserve objectives and System holdings permitted, or crossed bills between foreign accounts on those occasions when purchase and sale orders of different accounts matched as to amounts, maturity areas and delivery dates. The authority to make offsetting purchases and sales for the System Account was also used when the reserve absorption resulting from System sales of bills to foreign accounts was contrary to reserve objectives. If coupon issues were readily available in the market, the System sold bills to the foreign accounts and purchased an equivalent amount of coupon issues in order to offset the reserve effect. Sales of Treasury bills by foreign accounts were also frequently kept out of the market when they coincided with a need for the System to supply reserves. To the extent that bills could be purchased from foreign accounts, the Desk could achieve a release of reserves without buying bills in the market, and thus avoid exerting a depressing influence on rates.

Repurchase Agreements

Throughout the entire thirteen-year period from 1953 through 1965 there was no essential change in the System's methods of handling repurchase agreements with dealers. During 1955, the Desk began to obtain and keep formal records of dealers' daily financing requirements and of the dealers' progress in obtaining funds during each day. Inquiries were made routinely each day whether or not there was any System intention of making repurchase agreements. Dealers cooperated by reporting their initial financing needs at the beginning of the day, the amount of funds obtained, rates paid, and the general sources of available funds, such as "out-of-town bank", "corporate repurchase agreement", "foreign agency funds", etc. This information enabled the Desk to measure more accurately the pressures in an extremely sensitive area of the money market--an area where residual demands for credit tended to converge during the day. It also formed, along with many other indicators, an important basis for daily decisions whether or not to provide reserves, through outright buying as well as through repurchase agreements.

The approach of the Desk to the market in making repurchase agreements depended on the size and urgency of reserve objectives and the potential opportunity for making the agreements, as revealed by the dealers' reports to the Desk. If the Desk was not particularly anxious to make any agreements, it might follow the progress of dealers in obtaining funds from other sources until early afternoon before reaching a decision. Meanwhile, the dealers were presumably scouring the country for available funds and reporting their progress to the Desk. By early afternoon, the dealers would be informed if the System would make repurchase agreements, and if so, what part of their remaining requirements would be met. The Desk's final decision had to be made by 2:00 p.m. at the very latest. Unless repurchase agreements were consummated before that time, there was a danger that delivery problems might result.

On the other hand, there were times when the Desk was anxious to make repurchase agreements, and the first check of dealer financing needs revealed a limited opportunity to do so. On such occasions, the dealers would be contacted early, informed that repurchase agreements were available and asked how much they were interested in making. Under these circumstances, the amount to be made with each dealer might be determined by 11:00 a.m. or even earlier, although the particular issues involved might not be decided upon by the dealers until later in the day.

This method of handling repurchase agreements presented some problems for both the dealers and the Desk. On those days when the System was reluctant to provide any reserves through this channel, or when an appraisal of the reserve situation or of money market conditions could not easily be made, the

Desk would delay its decision until the latest possible moment, with the hope that dealers might uncover additional sources of funds as the day progressed and perhaps satisfy their needs without recourse to the System. On the other hand, dealers were anxious to know if System repurchase agreements were likely to be available before stepping up the rates they were willing to pay elsewhere. Conversely, on days when the Desk was anxious to make repurchase agreements early in the day, dealers might be reluctant to make commitments until they had exhausted the possibilities of making cash sales and/or were sure that cheaper funds were not available elsewhere. Under most conditions, however, the general procedures worked out satisfactorily and enabled the Desk to appraise the significance of the progress reports on dealer financing, relate them to other information on money market conditions, and arrive at a decision not too long after noon.

The amount of repurchase agreements made with each dealer usually depended upon the amount of financing each dealer had left uncovered at the time the Desk was prepared to act. For example, if it was decided at 12:30 p.m. to make about $150 million repurchase agreements, and the dealers still needed about $300 million financing in the aggregate, the Desk generally provided about one-half of each dealer's remaining need--if about $225 million needs remained, about two-thirds of each dealer's needs were met, etc. This might involve some loss of opportunity to those dealers who were most aggressive in seeking funds since they were likely to have already obtained a substantial part of their financing from other lenders. At the same time, their very progress was an important guide to the Desk in measuring reserve needs and money market pressures. Consideration has been given from time to time to using other criteria such as individual dealer's over-all market performance in allotting repurchase agreements among dealers but there are some problems that would have to be overcome before such guides could be administered practically and equitably on a regular basis.

The Desk was always mindful of the credit risks involved in making repurchase agreements with dealers even though short-term Government securities were involved. Dealers regularly furnished the Desk with statements of condition and each dealer's net worth provided the principal basis for deciding the maximum amount of repurchase agreements that might appropriately be made with that firm. These internal "lines" were reviewed with the receipt of each new statement and the maximum amounts set were not considered absolute. On occasion they have been flexibly interpreted in order to attain necessary reserve objectives. On the other hand, excessive financing needs of a particular dealer were never considered alone as a reason for exceeding the dealer's "repurchase line" with the System.

The rate charged on repurchase agreements was usually the same as the prevailing discount rate of the Federal Reserve Bank of New York. In periods of credit restraint and tight money, this rate was usually lower than the dealers were paying for funds from other sources. Therefore, if the dealers had any significant position in short-term securities, the Desk could count on making a moderate amount of repurchase agreements when it desired to do so. On the other hand, in periods of easy money, dealers were frequently able to secure funds at rates below the discount rate and might be reluctant to make repurchase agreements with the Reserve Bank.

On some such occasions, when repurchase agreements were the most convenient means of supplying needed reserves, the Desk made repurchase agreements below the discount rate to induce dealers to place some of their financing with the System and keep it there. However, under the continuing authority directive of the Committee, the rate charged can not be less than the most recent average issuing rate for three-month Treasury bills (assuming, of course, that the bill rate was below the discount rate). This technique was used infrequently. One occasion when it proved useful was around the close of 1960 when the System was anxious to avoid the impact of outright buying on Treasury bill rates and also to make repurchase agreements that would provide an automatic absorption of reserves when they matured in January. At the same time, dealers were not interested in making repurchase agreements with the System because rates on other funds were relatively low. In order to compete for new agreements and to discourage premature withdrawal of those that were made, the Desk made repurchase agreements at 2 3/4 per cent while the discount rate was at 3 per cent. Another notable occasion was in 1964 when an increase in the discount rate to 4 per cent in November was followed by an undesirable degree of upward pressure on Treasury bill rates later in the year. In dealing with this situation, the Desk made a substantial volume of repurchase agreements at 3.85 and 3 7/8 per cent.

Under the continuing authority directive, repurchase agreements could also be made at rates above the discount rate of the Federal Reserve Bank of New York. This technique was used in 1955. During the late summer of that year, discount rates at various Reserve Banks were not uniform, and the rate of the New York Reserve Bank was below those in some other Districts. Meanwhile, the latest average issuing rate for three-month Treasury bills fell within the range of discount rates and appeared to be more representative of general money market rates. Accordingly, this rate, rounded to the nearest 5 basis points, was used as the rate for repurchase agreements. Also, around mid-November of 1955, repurchase agreements were made at a rate 1/8 per cent above the uniform discount rate, which was substantially below rates charged the dealers by other lenders and on the verge of being raised.

The maturity of repurchase agreements varied according to the reserve outlook and the objectives of the Desk. Throughout the entire period under review, a maximum of 15 days was authorized by the Committee. The maximum term was generally used when a projected need for reserves extended over several weeks, at a time when outright purchases of securities were not considered to be appropriate or as easily made. In general, longer term repurchase agreements tended to be made in periods of easy credit policy, and shorter term agreements in times of tighter policy. Very short-term agreements enable the Desk to keep a tighter rein on the reserves released, and provide an early opportunity to review the situation and to decide whether to withdraw the reserves through the maturity of the agreements or to keep them out through new agreements. During periods of Treasury "exchange" refundings, repurchase agreements against rights were normally scheduled to mature on the settlement date of the refunding, even though agreements against other Treasury issues might simultaneously be made for a shorter term.

At times of Treasury refundings, the Desk, under instructions from the Committee, was normally concerned with maintaining an even keel in the money and securities markets. The period of even keel was usually considered to extend from just before the announcement of the terms of the financing to the settlement date for the securities involved, although it might extend beyond the latter date if serious problems related to secondary distribution of the new securities arose. During "exchange" refundings, repurchase agreements against "rights" were normally made to expire on the settlement date of the financing. However, the Desk was authorized to make repurchase agreements only against securities maturing within 15 months until March 6, 1962, and thereafter against securities due within two years. Consequently, on refundings involving a choice of issues maturing beyond this limitation, dealers were required to withdraw any "rights" converted into longer term issues on the day following the submission of their exchange subscriptions. This inconvenience was eliminated in March 1965, when the Desk was authorized to make repurchase agreements against securities of any maturity during periods of Treasury financing. Since June 1966 such agreements have been permissible outside periods of Treasury financing as well.

All repurchase contracts between the Reserve Bank and the dealers provided for termination at any time prior to maturity at the option of either party. Dealers regularly exercised this option by withdrawing securities that they had sold or that could be financed more cheaply elsewhere. The Reserve Bank never formally required the dealers to withdraw securities before the maturity of the agreements. However, on several occasions when an absorption of reserves was needed, and substantial amounts of repurchase agreements were outstanding, the dealers were informed that the Desk "would not be disturbed" if the dealers, at their option, terminated most or all of the contracts. Such action was taken only when alternative financing was readily available at rates favorable to the dealers.

Repurchase agreements provided a very useful tool to the Desk and also helped the dealers in financing their portfolios. However, it was always unmistakably clear to the dealers that such accommodation was only available when it was appropriate from a reserve standpoint. Dealers had no right of recourse to the Reserve Bank and repurchase agreements were not made available simply because the dealers had a heavy financing need (although this was one indicator of money market pressures and of a possible need to supply reserves). Moreover, the repurchase contracts did not permit any substitution of securities. Therefore, if a dealer had to withdraw securities in order to obtain particular issues he needed, he automatically reduced his recourse to System credit by an equivalent amount unless reserve objectives on the day of withdrawal made it appropriate for the Desk to make new repurchase agreements.

During most of the thirteen-year period, the Desk made no general announcement of its intention to make repurchase agreements on a given day. Therefore, the only way a dealer could know immediately that such action was being taken was to have a request for repurchase agreements under consideration by the Desk at the time the decision was made. If a dealer had reflected no financing need, he would have no indication from the Desk as to whether or not repurchase agreements were being made. Moreover, repurchase agreements are made only with nonbank dealers so that the dealer banks had no direct knowledge as to whether the facility was available to nonbank dealers on a given day, although the information appeared to be indirectly obtainable by the banks through market channels almost as soon as the agreements were made. Since the availability of System repurchase agreements was considered to be an important market influence, there was considerable dissatisfaction among the dealer banks, and to some extent among nonbank dealers when they had no financing need, that knowledge of the Desk's action in this area was not directly available to them. Consequently, since late 1966, the Desk has been informing all dealers, including the dealer banks, of its intention to make repurchase agreements on a given day.

Repurchase Agreements Against Agency Obligations

On September 21, 1966 the Congress authorized Federal Reserve Banks, for a period of one year, to purchase and hold securities that are direct obligations of, or fully guaranteed as to principal and interest by, any agency of the United States Government. Pursuant to this legislation, the Federal Open Market Committee authorized the Desk on November 1, 1966 to make repurchase agreements with dealers against such agency obligations under the same terms that applied to Government securities. Dealers were informed of this fact and the Desk has since been acquiring Agency obligations, along with Government securities, under repurchase agreements. In negotiating repurchase contracts with dealers, the Desk has not usually specified how much should be against each type of security. Instead, each dealer has been told the amount of repurchase agreements the Desk was willing to make with him on a given day and he has been relatively free to determine the amounts of Government or Agency obligations to be involved. However, in view of the difference in amounts outstanding, trading volume and dealer positions in the two types of obligations, agency issues would be expected to comprise only a relatively small portion of any repurchase agreement. Furthermore, the Desk could, if it became necessary, directly control the proportion of Agency obligations offered by a dealer on a repurchase agreement.

Matched Sale-Purchase Transactions

During 1966, the Desk employed a new technique that had not been used either in the "bills preferably" period or in the first half of the 1960's. This technique was the matched sale-purchase transaction. It was designed to accomplish a temporary absorption of reserves, with a minimum effect on the market, in much the same way that the repurchase agreement had been used for many years to supply reserves temporarily. The new technique involved cash sales of selected issues of Treasury bills to dealers and a simultaneous commitment by the Desk to buy the same issues of bills back within a few days. By this method, redundant reserves were absorbed immediately and were automatically restored when the securities were redelivered to the System.

The matched sale-purchase transactions are all accomplished by means of "go-arounds". In a typical operation, all dealers and dealer banks are contacted simultaneously and offered an opportunity to purchase a particular issue (or issues) of Treasury bills at a specified rate of discount closely related to the current composite bid and asked quotations for the issue(s) reflected on the Trading Room quotation board. At the same time, the dealers are asked to reoffer the same bills to the Desk for future delivery at a rate to be set by the dealer. The dealers are allowed time (normally 15 to 30 minutes) to determine the extent of their interest. During this period a dealer might decide to take some of the bills himself to cover a short position or for other reasons, assuming he can arrange to finance the bills at a rate that would enable him to compete favorably for them with other dealers. Otherwise, a dealer might seek to develop temporary investment interest for the bills, in other words, to arrange with a bank or other investor a "reverse repurchase agreement" extending for the same period of time set by the Desk.

At the end of the allotted time, the dealers specify the amounts of bills they are interested in buying for cash (at the rate set by the Desk) and the rates at which they are willing to sell the bills back to the Desk for future delivery. The Desk then sells the bills to those dealers whose reoffering rates provide the best result for the Desk on the combined transaction. If only one bill issue is involved, the highest reoffering rates of discount would also provide the best result--if more than one issue is involved, further calculations are required based on the time each bill has to run to maturity and the dealers' offering rates of discount for each issue.

The matched sale-purchase transaction has enabled the Desk to absorb large amounts of reserves at times when market conditions might not have been conducive to an equivalent amount of unmatched sales for cash. Likewise, the offsetting future purchases by the Desk have little effect on the market since they are contracted for simultaneously so that the dealers have presumably completed necessary arrangements before submitting their reoffering proposals to the Desk. In most cases, the Desk has arranged to buy the bills back within 1 to 3 days after the cash sales were made.

Summary

The most important and far-reaching change in System open market operations during the 1960's, compared with the "bills preferably" period, was the inclusion of transactions (practically all purchases) in intermediate- and long-term Government securities. The techniques employed in buying these coupon issues during most of the later period were little changed from those previously used to buy coupon issues for Treasury investment accounts, except that much more formal and detailed records of dealer offerings were kept by the Desk. Most purchases were then made by responding to these offerings and it was only infrequently that the Desk placed orders with one dealer. Only since 1966 have "go-arounds" been used regularly to purchase coupon issues. In the short-term area, rate objectives became an important consideration in the choice of techniques. "Go-arounds" were used less frequently, especially on purchases of Treasury bills, and more buying was accomplished by responding to offerings made at the dealers' initiative. It became more important to pinpoint specific areas of the short-term market for purchases or sales by the Desk in order to intensify official influence on the three-month bill rate. This objective was most important in 1961 and 1962, although similar rate problems had to be dealt with during the first half of 1965 as well. When short-term rate objectives were most important, the Desk also sold securities into the short-term area or supplied them to foreign accounts and offset the reserve effect, when necessary, through purchases of intermediate- and long-term issues. A greater proportion of foreign account orders was crossed with the System Account during most of the 1960's although this technique was used much less frequently in 1965 and 1966. There were no important changes in the Desk's approach to repurchase agreements until 1966, when such agreements were made against Government Agency issues as well as against Government securities. During 1966, the Desk adopted a new technique--the matched sale-purchase transaction--which has proven very useful to absorb reserves temporarily under appropriate market conditions.

EXHIBIT A

Operating Policies of Federal Open Market Committee during "Bills Preferably Period"

A. It is not now the policy of the Committee to support any pattern of prices and yields in the Government securities market, and intervention in the Government securities market is solely to effectuate the objectives of monetary and credit policy (including correction of disorderly markets).

B. Operations for the System account in the open market, other than repurchase agreements, shall be confined to short-term securities (except in the correction of disorderly markets), and during a period of Treasury financing there shall be no purchases of (1) maturing issues for which an exchange is being offered, (2) when-issued securities, or (3) outstanding issues of comparable maturities to those being offered for exchange; these policies to be followed until such time as they may be superseded or modified by further action of the Federal Open Market Committee.

C. Transactions for the System account in the open market shall be entered into solely for the purpose of providing or absorbing reserves (except in the correction of disorderly markets), and shall not include offsetting purchases and sales of securities for the purpose of altering the maturity pattern of the System's portfolio; such policy to be followed until such time as it may be superseded or modified by further action of the Federal Open Market Committee.

EXHIBIT B

Continuing Authority Directive Issued by Federal Open Market Committee to Federal Reserve Bank of New York December 5, 1961(a)

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, to the extent necessary to carry out the current economic policy directive adopted at the most recent meeting of the Committee:

(a) To buy or sell U.S. Government securities in the open market for the System Open Market Account at market prices and, for such Account, to exchange maturing U.S. Government securities with the Treasury or allow them to mature without replacement; provided that the aggregate amount of such securities held in such Account (including forward commitments, but not including such special short-term certificates of indebtedness as may be purchased from the Treasury under paragraph 2 hereof) shall not be increased or decreased by more than $1 billion during any period between meetings of the Committee;

(b) To buy or sell prime bankers' acceptances in the open market for the account of the Federal Reserve Bank of New York at market discount rates; provided that the aggregate amount of bankers' acceptances held at any one time shall not exceed $75 million or 10 per cent of the total of bankers' acceptances outstanding as shown in the most recent acceptance survey conducted by the Federal Reserve Bank of New York;

(c) To buy U.S. Government securities with maturities of 24 months or less at the time of purchase, and prime bankers' acceptances, from nonbank dealers for the account of the Federal Reserve Bank of New York under agreements for repurchase of such securities or acceptances in 15 calendar days or less, at rates not less than (a) the discount rate of the Federal Reserve Bank of New York at the time such agreement is entered into, or (b) the average issuing rate on the most recent issue of 3-month Treasury bills, whichever is the lower.

2. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York to purchase directly from the Treasury for the account of the Federal Reserve Bank of New York (with discretion, in cases where it seems desirable, to issue participations to one or more Federal Reserve Banks) such amounts of special short-term certificates of indebtedness as may be necessary from time to time for the temporary accommodation of the Treasury; provided that the total amount of such certificates held at any one time by the Federal Reserve Banks shall not exceed $500 million.

(a) Such a directive has since been issued annually in substantially similar form and each is subject to modification during the year.

EXHIBIT C

Continuing Authority Directive Issued by Federal Open Market Committee to Federal Reserve Bank of New York, March 2, 1966

1. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York, to the extent necessary to carry out the most recent current economic policy directive adopted at a meeting of the Committee:

(a) To buy or sell United States Government securities in the open market, from or to Government securities dealers and foreign and international accounts maintained at the Federal Reserve Bank of New York, on a cash, regular, or deferred delivery basis, for the System Open Market Account at market prices and, for such Account, to exchange maturing United States Government securities with the Treasury or allow them to mature without replacement; provided that the aggregate amount of such securities held in such Account at the close of business on the day of a meeting of the Committee at which action is taken with respect to a current economic policy directive shall not be increased or decreased by more than $1.5 billion during the period commencing with the opening of business on the day following such meeting and ending with the close of business on the day of the next such meeting.

(b) To buy or sell prime bankers' acceptances of the kinds designated in the Regulation of the Federal Open Market Committee in the open market, from or to acceptance dealers and foreign accounts maintained at the Federal Reserve Bank of New York, on a cash, regular, or deferred delivery basis, for the account of the Federal Reserve Bank of New York at market discount rates; provided that the aggregate amount of bankers' acceptances held at any one time shall not exceed $125 million or 10 per cent of the total of bankers' acceptances outstanding as shown in the most recent acceptance survey conducted by the Federal Reserve Bank of New York;

(c) To buy U. S. Government securities with maturities as indicated below, and prime bankers' acceptances with maturities of 6 months or less at the time of purchase, from nonbank dealers for the account of the Federal Reserve Bank of New York under agreements for repurchase of such securities or acceptances in 15 calendar days or less, at rates not less than (1) the discount rate of the Federal Reserve Bank of New York at the time such agreement is entered into, or (2) the average issuing rate on the most recent issue of 3-month Treasury bills, whichever is the lower; provided that in the event Government securities covered by any such agreement are not repurchased by the dealer pursuant to the agreement or a renewal thereof, they shall be sold in the market or transferred to the System Open Market Account; and provided further that in the event bankers' acceptances covered by any such agreement are not repurchased by the seller, they shall continue to be held by the Federal Reserve Bank or shall be sold in the open market. U.S. Government securities bought under the provisions of this section shall have maturities of 24 months or less at the time of purchase, except that, during any period beginning with the day after the Treasury has announced a refunding operation and ending on the day designated as the settlement date for the exchange, the U.S. Government securities bought may be of any maturity.

2. The Federal Open Market Committee authorizes and directs the Federal Reserve Bank of New York to purchase directly from the Treasury for the account of the Federal Reserve Bank of New York (with discretion, in cases where it seems desirable, to issue participations to one or more Federal Reserve Banks) such amounts of special short-term certificates of indebtedness as may be necessary from time to time for the temporary accommodation of the Treasury; provided that the rate charged on such certificates shall be a rate 1/4 of 1 per cent below the discount rate of the Federal Reserve Bank of New York at the time of such purchases, and provided further that the total amount of such certificates held at any one time by the Federal Reserve Banks shall not exceed $500 million.