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Federal Reserve Open Market Operations in 1962

This report describes the open market operations of the Federal Reserve System against the background of broad System policy objectives on the one side and money and capital market developments on the other. It supplements the Annual Report *of the Board of Governors of the Federal Reserve System, which traced the development of Open Market Committee policy over the year, with a report from the particular vantage point of the Trading Desk at the Federal Reserve Bank of New York. This was where actual trading operations were effected in order to carry out the System's open market policies on a day-to-day basis.*

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Monetary policy in 1962 was directed toward providing stimulus to a somewhat sluggish domestic economy, while avoiding money market conditions conducive to outflows of funds abroad. These objectives continued without major change throughout the year, as indeed they had continued through 1961. There were some modest shifts in emphasis, however, including a slight movement toward less ease around midyear, and a similar shift during the closing weeks of the year. The continuance of a generally easy monetary policy since the spring of 1960 made this the longest period of uninterrupted ease since 1951.

In the background of open market operations during 1962 was a domestic economy that gave rise to recurrent hopes but somewhat disappointing results. Although there was a moderate rise in business activity, it lacked vigor and at no time came near to utilizing fully either the manpower or plant and equipment available to the economy. Unemployment remained above 5 per cent of the labor force—it averaged 5.6 per cent—even though it was significantly below the average of 6.7 per cent for 1961.

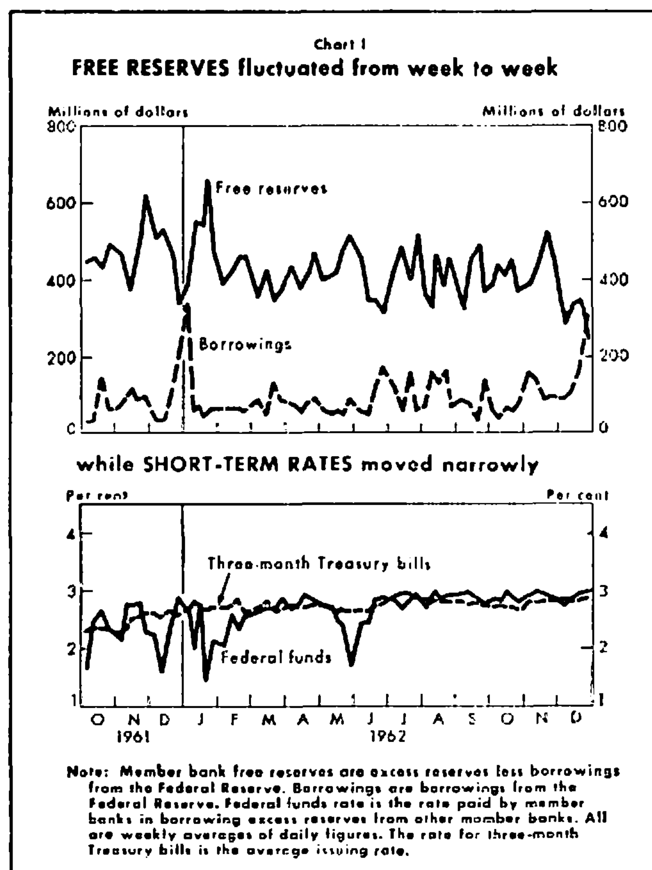
At times, particularly in late summer and early fall, a number of analysts suggested that the economy was in danger of sliding into a recession unless monetary or fiscal measures, or both, were used more vigorously to promote expansion. There were several jolts to business confidence during the year, notably a conflict between the Administration and the steel industry over prices, a sharp break in the stock market in the spring, and international crises over Laos and particularly over Cuba.

There was no evidence to suggest that the economy was held back by an insufficient availability of credit, however. On the contrary, credit seemed to be abundantly available throughout the year. Long-term interest rates moved lower while short-term rates fluctuated within a narrow range, closing the year at levels slightly above those at the end of 1961.

Although developments in the domestic economy called for a continued policy of monetary ease, the stubborn persistence of a sizable deficit in the United States balance of international payments was still a major problem. The deficit in 1962 was $2.2 billion—down only slightly from the $2.4 billion deficit of the previous year, and financed to the extent of $900 million through a further outflow of gold. Moreover, in both 1961 and 1962 the payments deficits were reduced because of certain special transactions that could not be counted on to continue. It was difficult to measure the precise extent to which private capital outflows enlarged the balance-of-payments deficit and also difficult to assess the exact role of relative levels of interest rates in encouraging or discouraging such outflows. But clearly without significant improvement in the balance of payments, these considerations were important

both in the formulation of policy and in the choice of techniques to be used in pursuing such policy.

Even though domestic and international objectives tended to exert different pulls on monetary policy, it was widely recognized that the two sets of objectives have much in common. Progress toward balance in international payments depends in no small degree on the achievement of a healthy, noninflationary, and increasingly productive domestic economy. And domestic expansion depends in part on the same factors that can bring a better balance in international payments—including an increase in our favorable balance of trade and an attractive investment climate that would retain investable funds and even draw funds into the United States from abroad. It was also recognized that our adverse balance of payments casts a long shadow over domestic activity and that a solution to our payments problem would probably give an important psychological lift to the domestic economy.



Note: Member bank free reserves are excess reserves less borrowings from the Federal Reserve. Borrowings are borrowings from the Federal Reserve. Federal funds rate is the rate paid by member banks in borrowing excess reserves from other member banks. All are weekly averages of daily figures. The rate for three-month Treasury bills is the average issuing rate.

SYSTEM OPERATIONS

Given the objectives outlined above, System policy was designed to maintain reserve availability at a level sufficient to encourage expansion of bank credit and the money supply, yet not so abundant as to encourage an outflow of funds by depressing interest rates—particularly short-term interest rates.

PROFILE OF POLICY OVER THE YEAR. During the first half of the year there was widespread concern over the sluggishness of the domestic economy, especially in the late spring when there were signs of faltering in the already slow rate of business expansion and when the stock market sustained its sharpest break since 1929. The balance of payments also played a role in the formulation of policy, although the seriousness of the country's payments situation was somewhat obscured by the temporary benefits accruing to the United States from a major flow of funds from Canada, which culminated in a speculative onslaught against the Canadian dollar in June.

System policy in this period was easy, as may be seen in various indicators of reserve availability. Weekly averages of free reserves typically ranged from about $400 million to $600 million from January through mid-June, and for the first 5½ months of the year averaged about $440 million. Federal funds were in comfortable supply, trading most frequently below the 3 per cent discount rate, while member bank borrowing averaged in the neighborhood of $70 million.

Toward midyear, while the economic advance remained sluggish and hesitant, it became increasingly apparent that the balance-of-payments problem was further from solution than many had hoped. Moreover, attention began to focus on the size of the expansion in bank credit and total liquidity that had already occurred. It appeared that monetary policy might be reaching the limit of its usefulness as a stimulus to economic activity. Consequently, after mid-June the System shifted the emphasis of monetary policy toward slightly less ease and toward maintaining a moderately firm tone in the money market. However, policy remained basically easy and encouraging to credit expansion. This policy posture was maintained throughout the summer and fall.

In October and early November, at the time of the Cuban crisis, particular emphasis was placed on maintaining as steady a climate as possible in the money market. In the closing weeks of the year, with business sentiment perceptibly improved, with bank reserves, bank credit, and money supply showing strength, and with the balance of payments still unsatisfactory, the System shifted credit policy once more toward slightly less ease.

Indicative of the mildness of the shift in emphasis to-

ward less ease in June, weekly average free reserves most often moved in a range of about $350 million to $500 million from mid-June to mid-December. This range largely overlapped the range of fluctuation earlier in the year—free reserves averaged about $410 million, compared with $440 million in the first 5½ months. Federal funds traded mainly in a 2¾ to 3 per cent range from mid-June to mid-December, compared with 2¼ to 3 per cent earlier. Member bank borrowing averaged around $100 million. In the latter part of December, net reserve availability was reduced somewhat further, and Federal funds tended to trade more steadily at 3 per cent; member bank borrowing increased.

GUIDELINES FOR OPERATIONS. During the course of 1962, a good deal of consideration was given to the matter of appropriate guidelines for the conduct of open market operations.

Continuing attention was paid to free reserves, but not to the extent of pursuing particular free reserve levels at the expense of wide swings in the general tone of the money market. Consequently, free reserve levels sometimes fluctuated widely from one week to another. Meanwhile close attention was given to the location of reserves, the availability of Federal funds, dealer financing needs, and trends in short-term rates. The general pattern of capital market developments, of credit expansion, and of growth in the money supply was also followed carefully.

Thus the wide fluctuations in measures of reserve availability during 1962 were usually accompanied by changes in the distribution of reserves between money centers and "country" banks, or by changes in the intensity of use of reserves and hence of the demands on the money market. At times, it was appropriate for free reserves to rise in order to accommodate temporarily enlarged demands for liquidity. At other times, when liquid funds were in less demand and banks sought to employ their reserves in the Federal funds market and the Treasury bill market, it was appropriate for free reserves to contract in order to avoid undue downward pressure on short-term rates.

With free reserves ranging rather widely, tendencies toward excessive ease or restraint in the market were cushioned. Particularly during the second half of the year, the rate for Federal funds seldom fluctuated sharply and money market conditions were relatively stable. On a few occasions, however, there were departures from that general stability when unusually high amounts of Federal Reserve float provided reserves in greater than expected volume or when country banks shifted large amounts of excess reserves to the money centers on the final day or two of their reserve computation periods.

In addition, various measures of total and required reserves were analyzed intensively during the year. At times, especially during the summer months, total reserves and required reserves grew only moderately, if at all. In other periods—notably toward the year end—total and required reserves bulged sharply above earlier growth trends. It was clear that such measures had to be considered as part of the total picture that also included the other indicators noted above, particularly those bearing on the day-to-day condition of the money and securities markets.

TECHNIQUES OF OPERATIONS. As in 1961, the defense of the short-term rate structure against fairly persistent downward pressures was an important consideration not only in shaping monetary policy but also in the choice of the techniques used to achieve policy objectives.

Thus in order to supply reserves while exerting as little downward pressure on short-term rates as possible, the System continued to buy intermediate-term and some long-term obligations as an alternative to purchases of bills or short-term coupon issues. Sometimes the System bought longer issues to offset the reserve effect of the bill sales made to cushion downward pressures on short-term rates. These operations in intermediate and longer term securities were in accordance with the change of procedures adopted in early 1961. Compared with 1961, however, there were few periods during 1962 when investors were seeking to sell intermediate- and long-term Treasury obligations on a large scale. At the times when the System needed to supply reserves, there was not always a substantial availability of such obligations that could be purchased without pushing prices to unsustainable levels.

System purchases of intermediate and longer issues were accordingly smaller and less frequent than in 1961, as the Trading Desk continued to make its purchases on a scale and in a manner intended to exert minimum direct influence on prevailing prices and yields. Typically, this meant that the Desk did not solicit offerings from dealers but rather purchased some of the securities offered at the dealers' initiative. Generally, an effort was made to leave a portion of the offerings in the market rather than to corral all or most of the available supply at any time. Prices and yields were thus established by the market, with the System being to a large extent a marginal, albeit significant, participant in the market. This method of operation would appear to have furthered the System's objectives more satisfactorily than if prices had been pushed to unsustainable levels in an effort to buy more securities than were readily available at current prices.

In addition, instead of buying Treasury bills outright and driving short-term rates down, the System often used repurchase agreements as a means of meeting temporary reserve needs. Almost all of these agreements were made at the discount rate of 3 per cent. That rate was usually competitive with the rates of other lenders when the use of the repurchase agreement technique was particularly important. However, sometimes the conduct of System operations was complicated by the fact that securities acquired by the Federal Reserve under repurchase agreements were withdrawn on a fairly large scale in advance of their maturities as dealers found financing on more attractive terms or as they made outright sales of the securities.

Outright purchases of Treasury bills to meet reserve needs were also necessary on many occasions. Indeed in the first statement weeks of July, August, and October, System purchases of bills in the market ranged from about $500 million to $1.1 billion. These very large purchases had little downward impact on Treasury bill rates, however, because they coincided with periods of large dealer inventories and accompanying market pressures toward higher rates.

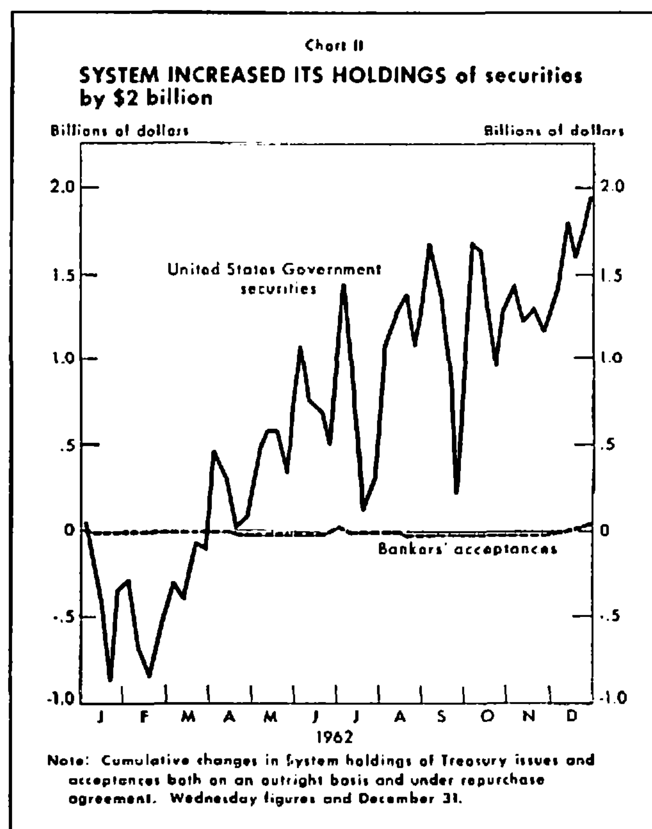
In making market purchases of Treasury bills, the System avoided as much as possible the maturity area closely surrounding the three-month bill because of the particular importance of three-month rates as a focal point in the short-term rate structure. Similarly the System frequently concentrated sales of bills in this area. As the year progressed, however, the yield curve for short-term issues flattened to the extent that purchases or sales of any bills seemed to have almost as much effect on the three-month rate as operations in issues of that maturity.

Use was also made of transactions directly with official foreign accounts maintained with the Federal Reserve. The System made sizable purchases of securities, mostly Treasury bills, from such accounts as a means of supplying reserves without injecting System buying directly into the market. On an even larger scale, the System sometimes sold bills to foreign accounts in order to reduce the volume of foreign account buying in the market. Even so, only about 20 to 30 per cent of the volume of transactions executed for foreign accounts at the Trading Desk was arranged directly with the System; the greater share was executed in the market.

A final important means of minimizing downward rate pressures was the October action of the Board of Governors of the Federal Reserve System in reducing from 5 per cent to 4 per cent reserve requirements against time and savings deposits. This release of reserves, amounting to about $780 million, satisfied a substantial part of the seasonal need for reserves in the last two months of the year. Open market purchases to meet seasonal reserve needs were accordingly reduced.

PORTFOLIO CHANGES. Over the year as a whole there was a net increase of $1,939 million in the System's holdings of Treasury obligations, of which $1,756 million represented outright purchases, and $183 million repurchase agreements. Holdings of bankers' acceptances increased by $59 million, comprising an increase of $4 million in outright holdings and a rise of $55 million in holdings under repurchase agreements.

In rough terms, the System's total net purchases of almost $2 billion, together with a rise in member bank vault cash of about $370 million, offset the combined effect on reserves of a gold outflow of about $900 million and a $1,400 million rise in currency in circulation. Net changes in other factors affecting reserves for the year were relatively small. The release of about $780 million of reserves as a result of the lower required reserve ratio against time and savings deposits was approximately matched by the rise in reserves needed to support increases in total deposits.



Note: Cumulative changes in System holdings of Treasury issues and acceptances both on an outright basis and under repurchase agreement. Wednesday figures and December 31.

Outright System holdings of Treasury securities maturing within a year decreased by $65 million as bill holdings were down by $751 million while short-term coupon issues were increased by $686 million. Holdings of one- to five-year issues increased by $2,070 million, mainly reflecting net purchases of nearly $1.5 billion of securities in that maturity range. The System also bought $326 million and $37 million of securities maturing in five to ten years and over ten years, respectively. But the System's holdings in these two maturity categories decreased by $133 million and $116 million because of the shortening effect of the passage of time on issues held in the Account. At the close of 1962 the average maturity of System Account holdings was 20.4 months, compared with 20.9 months a year earlier and 19.4 months at the end of 1960.

In addition to its open market operations in Treasury securities the Federal Reserve System continued to conduct some open market operations in bankers' acceptances. These operations, which are typically quite small compared with System operations in Treasury securities, are designed to maintain contact with, and encourage the further development of, this important market in the financing of world trade.

Federal Reserve holdings of acceptances on an outright basis varied between $30 million and $52 million during 1962. In line with the practice of previous years, outright holdings were reduced in the first half of the year by allowing maturities to exceed purchases and were increased in the second half by stepping up purchases. There was a deviation from this pattern in July, however, when System holdings were temporarily increased as the market experienced a sharp influx of acceptances. The System's outright holdings were at a peak at the end of the year, when market supplies were exceptionally large under the influence of heavy seasonal pressures. The System also acquired acceptances under short-term repurchase agreements from time to time during the year. These holdings also reached a peak during the year-end period.

TREASURY DEBT MANAGEMENT

Throughout the year, System open market operations were closely meshed with Treasury debt management operations; both worked toward similar domestic and international objectives.

SHORT-TERM DEBT. In an effort to resist downward pressures on short-term interest rates, the Treasury added almost continuously to the weekly offerings of three- and six-month bills. It sold a strip of $1 billion of regular bills. It increased the January and October quarterly offerings of one-year bills by $500 million each. In addition, it sought to include an attractively priced short-term anchor issue in each of its regular refundings.

As a result, the volume of Treasury bills outstanding increased to $48.2 billion at the end of 1962 from $43.4 billion a year earlier—despite a decline from $6 billion to $3 billion in the volume of outstanding tax anticipation bills. So strong was the market's appetite for bills that even the strip of $1 billion of bills, offered in November without the privilege of bank payment through Tax and Loan Accounts, was readily absorbed—after an upward adjustment in rates. In contrast, a similar offering a year earlier had had a sharper impact on rate levels and market atmosphere.

At the same time, partly because of a successful prerefunding operation, total coupon issues maturing within a year declined from $42.5 billion at the end of 1961 to $39 billion at the close of 1962. As a net result of these operations, the amount of marketable Treasury issues due within one year increased by $1.4 billion over the year. But with bill issues increased so persistently during the year and up so sharply for the year as a whole, the market impact of Treasury operations on the short-term debt structure probably was greater than this modest net increase might suggest.

DEBT EXTENSION. The Treasury also significantly extended the maturity of the debt during the year, partly by offering intermediate and longer term options in its regular refundings but mainly by means of two advance refundings. In the first of the advance refundings, in February, about $5 billion of obligations maturing from 1964 to 1972 was extended to longer maturities. In the second, in September, $8 billion of early 1963 issues was prerefunded out to 1967 and 1972. As a result, the volume of marketable debt maturing in over five years increased by $9 billion during 1962, while one- to five-year maturities declined by $3 billion. The average maturity of the debt at the end of the year was four years eleven months, compared with four years seven months a year earlier.

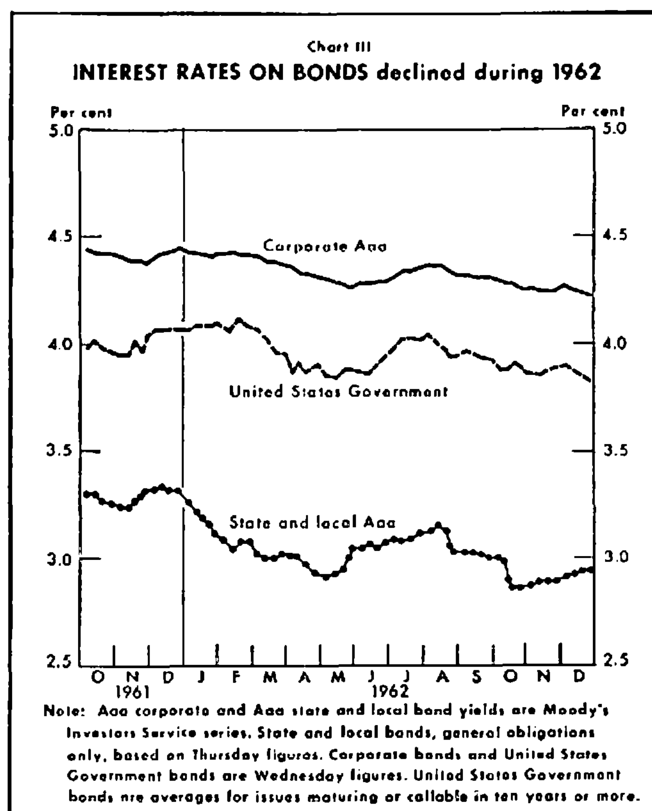
Toward the end of the year, market attention was directed to a prospective Treasury offering of a long-term bond through competitive bidding by syndicates. This experiment was part of a long-standing Treasury effort to find better techniques to sell long-term debt—an effort that was given further impetus by the market's initially mediocre response to the 4¼ per cent bonds of 1987-92 sold in the summer of 1962. The first auction sale of $250 million bonds was carried out successfully in early 1963, with a net interest cost to the Treasury of under 4.01 per cent for a 1993 maturity callable in 1988.

CREDIT MARKETS

The System's monetary policy of moderate ease helped to encourage substantial flows of funds through the capital markets during 1962, largely at steady or declining rates of interest. Commercial bank credit played a key role in this process, with total bank loans rising by $14 billion during the year. Bank investments increased by $5 billion, with holdings of tax-exempt securities up particularly sharply. Commercial bank holdings of United States Government securities actually declined slightly during the year.

The total bank credit increase of $19 billion, the largest in the postwar period, was associated with a very sharp rise in time and savings deposits. These grew with particular rapidity in the first half of the year following the permitted increase in ceiling rates of interest; time deposits were up $15 billion for the year. In contrast, private demand deposits changed relatively little. In fact they edged slightly lower through August (seasonally adjusted), and then spurted up in the final months of the year. They rose only by about $1 billion for the year as a whole.

Although the money supply—as conventionally defined to include private demand deposits and currency outside banks—rose by only about $2 billion during the year, the volume of close money substitutes expanded sharply. Estimated total liquid assets held by the nonbank public increased by about $34 billion, or 8 per cent, over the year. And the ratio of such assets to gross national product rose to 80.6 per cent in the final quarter of 1962 from 78.2 per cent a year earlier. This indication of ample and expanding liquidity in the economy agreed with a market impression that the economy was not pinched for want of credit, and that credit was generally available to encourage and support further economic expansion.



Note: Aaa corporate and Aaa state and local bond yields are Moody's Investors Service series. State and local bonds, general obligations only, based on Thursday figures. Corporate bonds and United States Government bonds are Wednesday figures. United States Government bonds are averages for issues maturing or callable in ten years or more.

TREASURY BOND YIELDS. The pattern of movements in long-term yields within the year can be seen in the course followed by Treasury bonds. In the opening weeks of the year participants in the Treasury bond market were cautious about the outlook for bond prices, particularly in the light of fairly optimistic views about business, concern over the balance of payments, and a related belief that monetary policy might have moved a little away from the degree of ease prevailing in 1961. Average yields on long-term Treasury bonds, which started the year at 4.07 per cent reached a high of 4.14 per cent in February.

Through the rest of the year, varying market appraisals of the factors mentioned above largely shaped the trend of prices and yields. Thus after the opening period of caution it became apparent that the business expansion was proceeding slowly at best, while the outlook for the balance of payments seemed more promising. Bond prices began to rise and the average yield declined, reaching a low of 3.84 per cent in early May.

Treasury bond yields moved generally higher through June and July in a market cautious for several reasons. The Canadian foreign exchange situation was considered to have adverse implications for our own balance-of-payments problem. Discussion of a quick tax cut to stimulate the lagging economy produced expectations of larger Federal budget deficits. And related to both of these developments, there was a feeling in the market that Federal Reserve policy might move away from ease. Under these circumstances the market sensed the System's shift toward slightly less ease in mid-June almost immediately. By the end of July, a number of longer term Treasury issues were yielding more than 4 per cent, and a new long-term Treasury bond elicited only limited interest when offered to yield 4.19 per cent.

Over the next three months yields again declined, approaching or attaining new lows for the year around mid-November. One factor that helped to initiate the rising price trend was the President's decision to postpone a

request for a tax cut. In addition, at the annual meetings of the International Bank for Reconstruction and Development and the International Monetary Fund in September, and in various discussions and statements related to these meetings, there was widespread comment to the effect that significant progress was being made in reducing the United States balance-of-payments deficit. At the same time, the domestic business situation still showed no particular vigor. Indeed a number of analysts believed that the economy's next move might be downward rather than a continuation of the sluggish advance.

In these circumstances the Board of Governors' announcement in late October of a reduction in reserve requirements against time and savings deposits was initially regarded by some as heralding an easier credit policy rather than as a device to supply seasonal reserve needs by means other than open market operations. This belief provided some further temporary strengthening to bond prices—although the market reappraised the significance of the move fairly soon thereafter. The Cuban crisis, occurring about that time, had remarkably little impact on bond prices.

Later in November and into early December there was more confidence in the business outlook, which was reflected in a slight rise in yields. This change in market sentiment came when dealer holdings of intermediate-term Treasury obligations were particularly large, following Treasury refunding operations. The increased market supply of securities enabled the System to meet a large part of the remaining seasonal reserve needs through purchases of securities outside the short-term area and thus to minimize downward pressure on short-term rates. The System's buying, in turn, helped to improve the technical position of the market by enabling dealers to reduce their inventories.

The market then strengthened and in the week before Christmas a number of issues reached new high prices for the year. The average yield on long-term issues returned to the May low point of 3.84 per cent. Prices receded again in the final few days of the year as the market began to take some cognizance of the System's further slight shift away from ease undertaken in mid-December. At the year end, the average yield on long Treasury bonds was 3.87 per cent—down 20 basis points for the year as a whole.

OTHER LONG-TERM MARKETS. An important part of the flow of funds in 1962 found its way into the tax-exempt area. For the second successive year, new offerings of state and local government securities aggregated over $8 billion. During the first half of the year these issues were avidly sought by commercial banks striving to employ time and savings deposits profitably. Yields declined through early May. Yields then rose until early August as bank demand for tax-exempt bonds tapered off somewhat. During the balance of the year, the demand remained sufficiently strong so that the continuing sizable volume of new issues was floated at declining yields. Moody's index for Aaa-rated obligations of state and local governments fell to a low of 2.88 per cent in early November, a level not reached since mid-1958. Over the year, yields on Aaa-rated tax-exempt issues declined by 37 basis points to 2.94 per cent.

Corporate bond financing in 1962, although still a sizable $9 billion for the year, was not so large as in either 1958 or 1961. This lower borrowing reflected in part a rise in internally generated corporate liquidity. This liquidity not only lessened corporations' needs to borrow but also made them steady purchasers of short-term obligations, thereby accentuating the downward pressure on short-term rates. Corporate bond yields declined until late May from the levels prevailing in the latter half of 1961. But the decline was gentler than that for tax-exempt bonds, which benefited from the heavy bank buying. At the close of 1962 Moody's Aaa corporate bond index, at 4.22 per cent, was 22 basis points below a year earlier.

During much of the year, corporate underwriters bid aggressively for new issues and reoffered them to investors at yields about equal to or even a little below the yields on recently offered issues of similar quality. In the latter part of 1962, high-grade corporate utility issues were being reoffered at yields of around 4.22 to 4.30 per cent, compared with about 4.44 to 4.69 per cent a year earlier. In addition, there was a tendency for the spread between top-grade and lesser rated securities to narrow as investors reached for higher yields.

Dwarfing the increases in municipal and corporate borrowing, the increase in mortgage debt was an unprecedented $24 billion during 1962 as a large share of institutional savings found outlets in this area. Here, too, there was some downward drift in yields over the course of the year.

SHORT-TERM RATES. The range of fluctuation for short-term money market rates was relatively narrow throughout the year. The average issuing rate for three-month Treasury bills remained between about 2.65 and 3 per cent and was most often between 2.75 and 2.85 per cent.

Throughout the year the combined influence of the moderately easy monetary climate fostered by the System and a steady demand for bills from corporations and other nonbank buyers exerted persistent downward pressure on

rates. This tendency was resisted by the coordinated use of System open market operations and Treasury debt management techniques, however, in order to keep United States rates competitive with yields in foreign money markets. The availability of time certificates of deposit as an alternative investment also tended to relieve downward pressures on rates. On balance, short-term market rates actually rose slightly over the year. Nevertheless, there was no attempt to set rigid floors under rates, at which the authorities would make unlimited amounts of bills available. Rates fluctuated enough to provide some market uncertainties and to require an appraisal of market forces in the management of both dealer positions and investment portfolios.

At the same time, the official actions in response to downward market pressures on bill rates probably contributed to the flattening of yield curves, including both a narrowing of spreads between short- and long-term issues and a narrowing of spreads within the short-term area. At times, the spread between three- and six-month Treasury bills decreased to as little as 2 or 3 basis points.

Treasury bill rates dropped to their lowest levels of the year in May, when large System purchases were superimposed on vigorous bank and nonbank demands. This brought the market rate for three-month bills down to 2.63 per cent (bid) on May 11. The year's high rate level for three-month bills (2.98 per cent) was reached in July following the slight firming in monetary policy and increased concern over the balance of payments.

After their high point in July, bill rates declined until late October as corporate and other nonbank demand absorbed the almost uninterrupted increases in bill supplies marketed by the Treasury. Rates turned up again in November after the Treasury announced its plans to auction a $1 billion strip of bills. Although the strip was readily absorbed, rates tended to remain at their higher level as the money market atmosphere firmed somewhat. The three-month bill closed on December 31 at 2.93 per cent (bid)—about ¼ per cent above the comparable rate at the end of 1961.

The level and movement of short-term rates was such that—after allowance for the cost of forward cover in the foreign exchange market—the spread between rates on three-month Treasury bills of the United States and the United Kingdom favored the United Kingdom bills by a maximum of about 70 basis points during the year, a high reached in late October. In 1961 the covered spread in favor of London had been as much as 105 basis points, and in 1960 it had ranged up to about 165 basis points.

During most of 1962, the covered spread in favor of London was no more than 25 or 30 basis points. At times the spread favored United States bills—as in April, shortly after the British bank rate had been reduced for the third time in the space of two months. However, part of the effect of these successive reductions tended to be offset either by lower bill rates in the United States or by a decline in the discount on forward sterling.

Further assistance in keeping United States short-term rates competitive with those abroad came in October when new legislation removed for three years the ceiling interest rates on time deposits held in member banks by foreign official accounts.

Along with the rise in market supplies of Treasury bills, negotiable time certificates of deposit, introduced to the market in early 1961, assumed greater importance as a money market instrument during 1962. This was partly due to the higher rates permitted on these obligations and to the banks' aggressiveness in using the instruments to attract deposits during the year.

Total time certificates issued by New York City banks and outstanding at the year end were $1.8 billion, compared with $1 billion at the end of 1961. Certificates of Chicago banks increased by almost $300 million during the year to $545 million. Large increases also took place in the outstanding volume of certificates issued by banks in many other centers. In early December, the total volume of outstanding certificates at weekly reporting member banks throughout the country was estimated to be somewhat over $6 billion. Active trading in certificates developed in the secondary market. The market tended to broaden during the year as new investors appeared and as certificates of lesser known banks gained wider acceptability.

BANKERS' ACCEPTANCES. In contrast to the sizable increases in the volume of Treasury bills and time certificates of deposit in 1962, the volume of bankers' acceptances in the United States declined slightly. The net decline of $33 million to a year-end total of $2,650 million interrupted a period of almost steady growth since the fall of 1959. Market activity was also somewhat lighter during the year, with dealers' average weekly sales slipping to $110 million from $130 million in 1961.

One reason for the slowdown of acceptance financing in 1962 seemed to be a shift in the relative cost of such credits vis-à-vis other means of financing. Domestically, the previous cost advantage of acceptance credits over direct bank loans apparently shrank to little or nothing. While clear-cut comparisons would involve analysis of a number of variables, it seems significant that in 1962 the effective cost of three-month acceptance credits (the rate of discount plus the acceptance commission) never fell

below the prime bank loan rate of 4½ per cent, and often exceeded that rate by as much as ⅛ to ¼ per cent. In contrast, during 1961 the cost of acceptance credits was generally below the prime loan rate.

In addition, there seemed to be some narrowing of the cost advantage of United States acceptance credits over credit facilities available to borrowers in a number of foreign countries. Again, precise comparisons are difficult to make, but it can be pointed out that while acceptance credit costs moved somewhat higher in the United States there was an easing in commercial credit conditions in some foreign countries. In general, however, the cost of credit in the United States continued to be lower than that available in a number of important foreign money markets.

Another factor that apparently restrained the growth of acceptance financing was the changing pattern of United States exports. In previous years, increasing exports to Japan—financed to a considerable degree through acceptances—had helped to account for the rapid rise in acceptance credits. In 1962, while total United States exports increased, exports to Japan declined. This decline probably accounted for part of the nearly $200 million decline in acceptance financing of exports over the year.

The basic demand for acceptances remained good during most of 1962. Although the yield advantage of acceptances over Treasury bills was smaller than in 1961, it was high enough so that market supplies of acceptances were readily absorbed during most of the year. However, the margin of unsatisfied demand was not strong enough to push rates down. It may seem paradoxical that acceptances yielded, for the investor, a smaller interest advantage over Treasury bills in 1962 than in 1961, while at the same time from the borrower's standpoint acceptance rates tended to be a bit higher relative to alternative financing sources than a year earlier. This result seems to have emerged out of the flattening of the yield curve in 1962. While for the investor acceptance rates compete with rates on Treasury bills and other short-term marketable paper, the more relevant comparison for the borrower is between acceptance rates—plus related fees—and bank lending rates to high-grade borrowers.

Reflecting the general stability of short-term rates over the year, there were only four general changes in acceptance rates during 1962. The rates were reduced by ⅛ of a percentage point in May and were raised by a similar amount in late June; they were further increased by ⅛ in July but reduced again by that amount in early October. As a result, rates were at the same level at the beginning and end of the year.

Early in 1962, with demand exceeding supply, dealers' portfolios declined rapidly from their end-of-1961 level of somewhat above $60 million to around $10 million to $20 million by late January. Inventories fluctuated close to this range until the latter part of June. The rate reduction in early May failed to produce substantially increased supplies, as other rates were also declining. By late June, however, the supply reaching the market was augmented by commercial bank sales in the somewhat firmer money market, while demand tapered off with the rise in Treasury bill rates. As a result, dealers' inventories reached a high of $123 million on July 16, despite a rate increase in late June. In these circumstances another increase in rate was made on July 17. Dealers' portfolios declined rapidly thereafter, and rates moved lower again in early October. However, inventories rose very sharply in the closing weeks of the year under the impact of exceptionally large seasonal supplies. Dealers' holdings reached $218 million on December 31—a level attained only once before, in January 1930. Dealers refrained from increasing rates in the year-end period, hoping that January 1963 reinvestment demand would relieve their swollen inventories. But such demand, while good, was not up to expectations and did not reduce dealer portfolios appreciably. Shortly after the turn of the year, rates were moved up again.

CHRONOLOGICAL REVIEW

A more detailed description of System operations for the major periods of 1962 is given in the following section, along with more detail on related money and capital market developments. The connections between System operations and developments in the short-term money market were particularly close throughout the year, as the magnitude and the techniques of System transactions were partly guided by, and were in turn an important influence on, money market trends.

The pattern of activity in the long-term capital markets was also significant. For a continuing concern of System policy is the smooth functioning of the nation's capital markets, so that savings and newly created credit can be channeled efficiently in the directions and at the prices set by the interplay of market forces.

JANUARY-FEBRUARY: SEASONAL RESERVE ABSORPTION. In the opening weeks of 1962, the joint domestic and international objectives of System policy posed no serious difficulty to the conduct of open market operations. Partly as a result of System operations, Treasury bill rates were somewhat higher by mid-February than at the end of 1961, despite recurrent downward pressures.

Guided by the need to offset the usual reflux of reserves to the banking system, open market operations withdrew

SYSTEM OPERATIONS IN GOVERNMENT SECURITIES DURING 1962

In millions of dollars

Period	Outright purchases			Outright sales			Re-demptions	Repurchase agreements		Net change
	Treasury bills		Coupon issues	Treasury bills		Coupon issues		Pur-chases	Sales	
	In market	From foreign accounts		In market	To foreign accounts					
January 2—February 21	367.2	200.3	92.5	697.1	231.3	177.0	234.1	338.0	497.0	− 838.5
February 22—March 28	733.2	101.2	452.7	224.0	222.6	—	156.3	496.4	444.4	+ 736.2
March 29—May 2	649.6	135.6	140.0	260.0	73.3	—	36.3	1,150.5	1,129.5	+ 576.6
May 3—June 6	593.0	124.1	599.5	329.0	321.1	—	—	229.0	302.0	+ 593.5
June 7—July 25	853.7	200.3	410.0	1,151.4	562.0	160.0	359.4	706.2	706.2	− 768.8
July 26—September 26	856.5	323.6	375.6	679.5	573.3	—	381.0	552.0	552.0	− 78.1
September 27—November 28	1,107.8	302.0	618.7	503.0	330.9	63.0	174.8	1,546.2	1,546.2	+ 956.8
November 29—December 31	256.0	8.6	327.4	—	52.7	109.5	10.7	1,097.0	755.0	+ 761.1
Total	5,417.0	1,395.7	3,016.4	3,844.0	2,367.2	509.5	1,352.6	6,115.3	5,932.3	+1,938.8

a net of $838 million of reserves from January 2 through February 21. Sales and redemptions of some $1.3 billion of securities, including sales of about $700 million of Treasury bills in the market, more than offset purchases of $660 million of securities. Holdings under repurchase agreements also declined.

At the very start of the year, the System supplied a moderate amount of reserves to relieve lingering year-end pressures in the money market, primarily through repurchase agreements and Treasury bill purchases from foreign accounts. In addition, repurchase agreements were made in moderate volume on January 15, when signs of firmness appeared in the money market on the payment date for $2 billion of new one-year bills. In late January and early February reserves were supplied as float dropped sharply. Apart from these three occasions, however, reserves were absorbed in sizable volume on most days of the January 2-February 21 period.

In addition to System operations, several other factors helped sustain Treasury bill rates during the first seven weeks of 1962. Although there was bank and nonbank demand for bills throughout most of the period, its impact on rates was blunted by the effect on market psychology of the optimistic economic outlook that prevailed at the year's start, by the prospect for increased competition with bills from commercial bank time and savings deposits following the revision in Regulation Q, and by market awareness of continuing official concern over the level of short-term rates. Debt management actions also contributed to sustaining the rates, for the Treasury raised an additional $500 million in the auction of one-year bills maturing on January 15 and sold $100 million of additional three-month bills in the regular auctions on January 29 and February 9 and 19.

In this setting, Treasury bill rates continued to edge irregularly upward during the first several days of the new year, following a sharp rise in the last two months of 1961 which had carried the three-month rate to 2.67 per cent (bid) at the end of December. The $2 billion quarterly issue of one-year bills was auctioned on January 9 at an average issuing rate of 3.37 per cent—or about 39 basis points higher than the previous one-year bill issue auctioned in October 1961. Bill rates then moved lower through early February, but rose again thereafter. The average issuing rates for new three- and six-month bills in the regular weekly auction on February 19 rose to 2.85 and 3.03 per cent, respectively.

Prices of intermediate- and long-term Government securities declined at the beginning of the year, continuing the trend of late 1961. The decline reflected optimism about the domestic economy, prospects for increased defense spending, concern over the balance of payments, and a related feeling that a less easy credit policy might be under way—particularly in view of the strong surge of

credit demand in the final weeks of 1961.

Despite this bearish atmosphere in the bond market the Treasury's cash offering in January of $1 billion 4 per cent bonds of 1969 was accorded a reasonably good market reception. The 60 per cent allotment was somewhat larger than expected, and the issue initially traded slightly below the Treasury's offering price. But it soon recovered, and the entire operation appeared to have little price impact on other outstanding Treasury issues.

By the end of January, bond market expectations began to shift toward the view that significant increases in interest rates were unlikely. The President's proposal of a balanced budget for fiscal 1963, the failure of the strong credit demands that appeared in late 1962 to continue, and the weakness in the stock market lent support to those views. These expectations were reinforced in early February as reports on several key economic indicators for January raised doubts about the strength of the domestic economy. Although the immediate effect of these developments on bond prices was muted by large-scale Treasury refunding operations in February, the increasingly favorable outlook for the bond market contributed to the success of the operations.

The first of the refundings provided holders of $12 billion of maturing issues the option of exchanging into either a 3½ per cent one-year certificate or a 4 per cent 4½-year note. Holdings by the public—that is, holdings by others than the Federal Reserve and Government investment accounts—amounted to $7 billion.

Investor response was excellent. The public acquired $3.4 billion of certificates and $2.9 billion of notes, and attrition was only about 6 per cent of public holdings. (The System exchanged its $4.8 billion of maturing issues for $3.3 billion of new certificates and $1.5 billion of new notes.) The good demand for the 4½-year notes highlighted the attractiveness of a 4 per cent return—particularly for commercial banks that were paying higher rates on time deposits.

On February 15, the Treasury announced an advance refunding operation. Holders of nearly $19 billion of outstanding bonds, of which $17 billion was held by the public, could exchange into longer maturities at higher yields. This offering also won a favorable market reception. Holders of $2.8 billion of 1964 and 1965 maturities exchanged into a new 4 per cent bond due in 1971, while holders of a 1965 issue exchanged into $563 million of the reopened 4 per cent bonds of 1980. In addition, holders of 2½ per cent bonds of 1967-72 exchanged into $900 million and $933 million of the 3½ per cent bonds of 1990 and 1998, respectively. In all, $5.2 billion of the securities eligible for exchange was converted.

By the end of February, after a good deal of debt extension had been accomplished, yields of long-term issues were only slightly above end-of-1961 levels. The average yield on long-term Treasury issues was 4.08 per cent, compared with 4.07 per cent at the end of 1961.

Other sectors of the long-term capital market were more buoyant in price than the Treasury bond market during the first weeks of 1962, and this helped to moderate the downward price tendencies in the Treasury market. The market in tax-exempt issues was particularly strong, reflecting heavy commercial bank buying as banks sought to employ their rapidly rising time deposits profitably. New state and local issues totaled about $2 billion in January and February, or nearly half again as much as in the first two months of 1961. This enormous flow was absorbed at declining rates of interest. By the end of February, Moody's yield index for Aaa-rated tax-exempt issues was down to 3.08 per cent from 3.31 per cent at the end of 1961.

The rise in corporate bond prices was less pronounced than for municipals at the start of the year, and there was some decline in corporate bond prices in February. Nevertheless, at the end of February, yields on corporate issues were still a shade lower than at the end of 1961, with the average yield on Moody's Aaa corporate bonds at 4.42 per cent compared with 4.44 per cent two months earlier. Corporate bond flotations aggregated $1.2 billion during January-February 1962, compared with $1 billion a year earlier.

FEBRUARY-JUNE: RESERVE EXPANSION. After completing the seasonal absorption of reserves during the opening weeks of the year, the System Open Market Account turned in late February to the more difficult task of providing funds to maintain an adequate level of reserve availability for continued credit growth during a period when Treasury bill rates were subject to persistent downward pressures. These pressures became particularly pronounced as the impact of continuous investor demand was reinforced by the psychological effects of three reductions of ½ per cent each in the British bank rate that took place between March 8 and April 26.

System open market operations on balance provided nearly $2 billion of reserves to the banking System over the February 22-June 6 interval. The injection of so large a volume of reserves without unduly depressing rates in the short-term area called for particular attention to the techniques and timing of operations.

Thus the Account Management sought to minimize purchases of Treasury bills in the market and supplied reserves whenever feasible by buying bills directly from foreign accounts, by buying coupon securities, and by

making short-term repurchase agreements. Purchases of Treasury bills from foreign accounts amounted to about $360 million during the February 22 to June 6 interval, and purchases of coupon securities to $1.2 billion. In addition, almost $1.9 billion of new repurchase agreements was made, and terminated, during the period.

On occasions when these alternate avenues for supplying reserves were not available and it was necessary to buy Treasury bills in the market, the System generally avoided the three-month area. Moreover, during the midmonth periods, when reserves were temporarily provided by float and other market factors, offsetting System sales were designed to have maximum impact on the three-month bill rate. In addition to System sales of $813 million of bills in the market during the February 22 to June 6 period, $617 million of Treasury bills was sold directly to foreign accounts, thereby avoiding the direct impact of these foreign purchase orders on bill rates.

The opening week of this interval (the week ended February 28) proved to be difficult for System operations. Statistical indicators pointed to a sizable reserve need, but Treasury bill rates, after having risen in the auction on February 19, were declining rapidly in response to a strong and broadly based demand; the three-month rate dropped 14 basis points to 2.66 per cent (bid) by February 26. With only limited opportunities to supply funds through purchases of coupon issues or through repurchase agreements, the System purchased almost $300 million of Treasury bills in the market. In the latter part of that week, the System sold some bills in the three-month area, thus moderating the downward rate pressure still evident in the market, and partially offset the reserve effect of these sales through purchases of coupon issues—by then in larger supply. After this action, bill rates steadied and then edged upward, with the three-month bill closing the week at 2.71 per cent.

The increased availability of coupon securities persisted for some time, enabling the System Account to meet a good portion of the reserve needs of succeeding weeks through purchases of these issues. Thus, from February 22 through March 28, $453 million of reserves was supplied through purchases of coupon issues, mostly maturing within one to three years. In addition, $496 million of repurchase agreements was arranged with Government securities dealers.

Treasury bill rates held within a narrow range from late February through March, with the three-month rate usually at 2.70 to 2.75 per cent. The Treasury's announcement on March 8 of an offering of $1.8 billion of September tax anticipation bills, coupled as it was with the news of a $60 million gold outflow in the week ended March 7, helped to offset the psychological impact on bill rates of a ½ per cent reduction in the British bank rate. While the auction of the tax bills on March 20 generated a good interest, dealers' positions were sharply increased as they received nearly half of the issue. This increase in dealers' inventories enlarged the dealers' financing requirements and thus enabled the System to make greater use of repurchase agreements in meeting subsequent reserve needs.

Such needs increased sharply in late March and early April because of a large decline in float and a sizable gold outflow. Although the System provided funds through repurchase agreements and purchases of coupon issues, the need for reserves also required substantial purchases of Treasury bills in the market. The System again cushioned the rate impact of this buying, however, by confining purchases to shorter maturities, which were offered in the firmer money market that developed around the end of March. The three-month bill rate thus remained close to or above 2.70 per cent through April and into early May. Meanwhile the spread between United States and British bill rates, after allowing for cost of foreign exchange cover, reached 39 basis points in favor of the United States—the widest for the year—following another ½ per cent reduction in the British bank rate on April 26.

The Treasury was in the market again in early April to roll over $2 billion of one-year bills maturing April 15, at an average rate of 2.94 per cent. This operation tended to keep dealers' inventories at a high level. Thus the System could continue to rely heavily on repurchase agreements in meeting reserve needs over the balance of April and in early May.

Renewed downward pressures on short-term rates appeared in May as the money market turned easier. An accumulation of large Treasury deposits in commercial banks contributed to a surplus of reserves in money center banks. Trading in Federal funds moved down from its previous range of 2½ to 3 per cent to a range of 2 to 2½ per cent on most days, and even lower on several days in May.

At the same time, the System again found it necessary to meet a sizable portion of reserve needs through market purchases of bills. As this buying was superimposed on strong demand from both bank and nonbank sources, the three-month rate dropped to a low for the year of 2.63 per cent (bid) on May 11. Then, although the additions to the weekly auctions by the Treasury were increased from $100 million to $200 million beginning with the June 4 auction, the bill rate generally fluctuated between 2.64 and 2.70 per cent through June 6. The System was able to absorb reserves in the week ended May 23, but sizable System purchases of Treasury bills were made during the

two weeks ended June 6. These purchases were designed to offset reserve drains stemming from market factors and thus to help assure a steady supply of reserves after the sharp break in stock prices in late May.

Meanwhile, the prices of intermediate- and long-term obligations tended to move higher, particularly in the first part of the late February-early June peroid. For Treasury notes and bonds, this tendency was already developing toward the end of February. Market confidence was reinforced by the reductions in the British bank rate, by official statements indicating an improvement in the nation's balance of payments (over the poor figures for the fourth quarter of 1961), by the relatively noninflationary labor contract negotiated in the steel industry in March, and by the weakness in the stock market.

By early April, prices of Treasury notes and bonds had reached new high levels for the year, with yields on all Treasury issues below 3.95 per cent, and average yields on long-term Treasury issues at 3.87 per cent compared with 4.14 per cent on February 20. The Treasury's $1 billion cash offering of 3¾ per cent bonds of 1968 in early April was considered quite attractive. With subscriptions for the new issue totaling $6.8 billion, an allotment of only 15 per cent was made, and the bonds quickly moved to a premium quotation.

The market reacted sharply after the news on April 11 that most major steel companies had increased prices—a development regarded in the market as possibly setting the stage for a new round of inflation. Bond price declines ranged to about ½ point following the announcement. These declines were quickly reversed when the steel companies, partly because of criticism from the Administration, rescinded the price increase. Indeed, expectations about bond prices appeared to be more buoyant after the steel price episode than before. This reflected renewed confidence in the outlook for over-all price stability, and also the view of some market observers that the steel situation might affect business sentiment and capital spending adversely, and thus affect credit demands and monetary policy.

Thus the market background was favorable for the Treasury's May refunding. In this offering, holders of close to $12 billion of maturing securities—$9 billion held by the public—were given the opportunity to exchange into 3¼ per cent one-year certificates, 3⅝ per cent Treasury notes maturing in February 1966, or 3⅞ per cent Treasury bonds maturing in November 1971. Despite some initial disappointment that a 4 per cent issue had not been included in the offering, there was a strong investor and professional demand for the maturing rights. The exchange was $6.7 billion for the certificates (including the System's $2.2 billion holding), $3.1 billion for the notes, and $1.2 billion for the bonds. Attrition on the public holdings of rights was only 7 per cent.

Prices of new and outstanding issues continued to move higher after the results of the financing were announced in early May. The already favorable outlook for bond prices, which reflected expectations of only a moderate economic expansion and a continued policy of credit ease, was reinforced during this period by further declines in stock prices. By the second week of May, most intermediate- and long-term issues had reached new low yields for the year; the average on long-term Treasury bonds was 3.84 per cent—the lowest since June 1961.

Toward the middle of May a technical reaction set in following the prolonged rise in Treasury bond prices. Demand tapered off at the price levels that had been reached, and the market softened further because of increased offerings related to the settlement of the May refunding. In addition, the deteriorating situation in Laos, somewhat better news about the domestic economy, and reports of a faster gold outflow contributed to the heavier market atmosphere, as did the relatively congested state of the corporate and municipal bond markets. Prices of intermediate- and long-term Treasury issues thus moved lower from May 11 to May 21.

Later in May, investment demand expanded at the lower price levels that had been reached, which enabled dealers to reduce their large inventories considerably. The bond market was also strengthened in late May and early June by the accelerated decline in stock prices. However, on days when the stock market had its worst sinking spells, bond prices also declined as some holders sold bonds hurriedly in order to raise funds to cover undermargined stock purchase accounts. Under the influence of these various factors, prices of Treasury issues edged irregularly higher from late May through mid-June, although prices failed to recover the high levels of early May.

The markets in corporate and municipal bonds also strengthened after late February. Yields on tax-exempt issues reached a low of 2.92 per cent (Moody's Aaa index) in early May. As a record pace of offerings continued (averaging about $800 million monthly from March through June) and demand began to taper off, dealers' inventories mounted and yields began to rise fairly sharply in mid-May. The "Blue List" of dealers' advertised inventories rose to a record $680 million on May 17 and, although the volume of new issues declined toward the end of June, yields continued to climb, with Moody's index for Aaa-rated municipal bonds reaching 3.09 per cent by early July. The reception of most new issues was very good from late February through March and April,

but after mid-May bonds were sold partly at concessions from their original offering prices.

Price movements in the corporate bond market were fairly narrow in comparison with those in the municipal sector. New bond sales were at a monthly average of about $800 million from March through June. Corporate bond yields moved lower from March through late May, with Moody's index for Aaa-rated corporate bonds declining from 4.42 per cent at the end of February to 4.27 per cent on May 21. Yields edged up only slightly to 4.29 per cent at the end of June.

JUNE-JULY: POLICY SHIFT TO SLIGHTLY LESS EASE. System operations from June 7 through July 25 on balance absorbed about $770 million of reserves to offset seasonal factors and, in the latter part of the interval, to help achieve the moderately firm money market tone called for by the Open Market Committee's directive of June 19. Gross sales and redemptions of Treasury bills totaled some $2 billion during the period, including $1.2 billion of Treasury bills sold in the market. Partly offsetting purchases of securities included $1.1 billion of Treasury bills (of which $854 million was bought in the market) and $410 million of coupon securities. In addition, $706 million of new repurchase agreements was made and terminated to meet temporary reserve needs.

With market factors supplying reserves in the early part of the period, the System made heavy sales of Treasury bills to the market. The securities thus sold added to a market supply already swollen by the return of securities to dealers from corporations with the approach of mid-June dividend and tax dates. The accompanying sharp increase in dealer financing needs tended to converge on the money center banks. The money market consequently firmed, with Federal funds moving up to a 2¾ to 3 per cent range.

In addition to the increased market supply of bills and the higher costs of dealer financing, market psychology was adversely affected in late June by the announcement of the measures being taken by Canada to deal with its international payments problem, which served also to focus attention on the United States payments situation. As commercial bank and dealer offerings of bills expanded, while nonbank demand remained seasonally light, rates for Treasury bills moved sharply higher. The three-month issue reached 2.90 per cent by the end of June, after having moved in a 2.65 to 2.70 per cent range in the early part of the month.

The System entered the market as a large buyer of securities just before the July 4 holiday to offset the combined month-end and holiday reserve drains. It met part of the reserve need through the purchase of $288 million of coupon securities and by arranging $197 million of repurchase agreements. The System also purchased over $600 million of Treasury bills in the market.

Despite these large purchases, short-term rates continued to edge higher as a note of caution continued to characterize the market. This caution reflected not only concern over the balance of payments, but now also a related concern about credit policy, as recent reserve statistics appeared to confirm market views that policy had become somewhat less easy. Moreover, in the two weeks after July 4, large System sales of bills were made in the market to absorb the post-holiday reflux of currency and to offset a midmonth expansion of float. Finally, the Treasury continued to add $200 million to the regular weekly bill auctions through June and July, and also rolled over $2 billion of one-year bills on July 10—at an average rate of 3.26 per cent, up from 2.94 per cent in April.

Rates on other bill issues moved up to their highest level for the year, with the three-month rate reaching 2.98 per cent in mid-July. Bill rates declined toward the end of July as investor demand strengthened again and as moderate System purchases were made. The three-month bill rate, however, did not fall below a 2.86 to 2.89 per cent range.

A heavier atmosphere also emerged in the market for Treasury notes and bonds after mid-June. As in the short-term area, attitudes of market participants reflected widespread discussion of the persisting balance-of-payments problem and the related prospect of a somewhat less easy credit policy to curb capital outflows. Moreover, many market observers felt that, in view of the lack of vigor of the domestic economy, any move toward a less easy credit policy for balance-of-payments purposes was likely to be accompanied by a more expansive fiscal policy, leading to larger budget deficits and additional Treasury borrowing. In particular, there was widespread discussion of the possibility of an immediate tax cut.

Demand for bonds slackened after mid-June. Although liquidation of securities by investors was not heavy, dealers sought to lighten their inventories by reducing prices. On the two days following news of the Canadian balance-of-payments measures, prices fell by ½ to 1 full point, and prices edged irregularly downward thereafter. By the end of July some issues were as much as 2¾ points below early June levels. Yields on most long-term Treasury issues were above 4 per cent once again, with the average yield reaching 4.04 per cent on July 31. The July 9 announcement by the Board of Governors of the Federal Reserve System of a reduction in margin requirements on stock purchases had little impact on the market for Treasury issues or for other fixed income securities.

LATE JULY TO LATE SEPTEMBER: OFFSETTING SEASONAL FACTORS IN STEADY MONEY MARKET. System operations from late July through late September alternately provided and absorbed reserves in response to seasonal forces. There was little net change in System holdings over the two-month interval, while operations were designed to preserve the money market atmosphere and moderate expansion of the reserve base sought by the Open Market Committee after mid-June. Market sales and redemptions of Treasury bills exceeded market purchases of these obligations by about $200 million during this period. The System also sold a net of $250 million of bills to foreign accounts. These net sales and redemptions of bills were largely offset by net purchases of about $375 million of interest-bearing securities. In addition, $552 million of repurchase agreements was made and terminated within the period.

The System supplied about $1 billion of reserves in the two statement weeks ended August 8 to offset a sizable absorption of reserves through market factors. There were few offerings of coupon securities to the Trading Desk—the bond market was just in the process of strengthening—and the low level of dealer financing needs provided little opportunity to make repurchase agreements. Consequently, the System purchased $760 million of Treasury bills in the market and another $226 million of bills from foreign accounts. At the same time, reserves tended to be concentrated at money center banks, and the money market was slightly easier. This gave rise to commercial bank buying that augmented nonbank demand for bills, and Treasury bill rates declined moderately in early August.

Later in August, the distribution of reserves shifted in favor of country banks and a somewhat firmer tone reemerged in the money market. This firmness increased when the System sold or redeemed a net of about $270 million of bills during the week ended August 22 to offset a midmonth expansion of reserves from market factors. The System reversed direction in late August and early September to meet large seasonal reserve needs around Labor Day. These reserves were provided mainly through purchases of $266 million of coupon securities during the two weeks ended September 5 and through making repurchase agreements.

With System purchases of bills thus minimal, bill rates moved irregularly after the declines of early August despite the persistence of generally good investor demand. Rates then rose slightly in early September, when corporate demand contracted with the approach of the mid-September tax and dividend dates.

System sales and redemptions of Treasury bills during the three weeks ended September 26 amounted to $1.2 billion, as the post-Labor Day reflux of funds was augmented by an exceptionally large midmonth expansion in float. Some repurchase agreements were made during this period, however, when the New York banks came under strong reserve pressures as a result of heavy dealer borrowings. After the September dividend and tax dates these repurchase agreements terminated. The System then moved to absorb funds more actively as reserve availability frequently turned out to be higher than anticipated and bill rates came under renewed downward pressure.

These downward pressures on bill rates persisted despite the firmness of the money market—in which Federal funds traded at 3 per cent during most of September. The demand for bills was enlarged by investors purchasing bills after selling rights to the Treasury's September prerefunding, and by a resurgence of outright nonbank investment buying. Another source of strength to the bill market in September was the generally optimistic tone of discussions around the time of the annual meeting of the International Bank and the International Monetary Fund regarding prospects for the United States balance of payments.

Dealers consequently bid aggressively for new bills in the weekly auctions, particularly for the attractive December maturities. The Treasury's offering of $3 billion of March tax anticipation bills on September 26 was strongly bid for and sold at an average issuing rate of 2.62 per cent, as commercial banks sought to gain the accompanying Tax and Loan deposits.

As to capital market developments in the late July-September period, after two months of increase in long-term yields the Treasury announced on July 26 the terms of a cash financing to refund $7.5 billion of August maturities and to raise about $1 billion of new money. Public holdings of the maturing issues were about $3.7 billion. Three issues were offered, including $6.5 billion of 3½ per cent one-year certificates, $1.5 billion of 4 per cent bonds of February 1969, and "up to $750 million" of 4¼ per cent bonds of 1987-92. Except for the 4¼ per cent bond, interest in the new issues was excellent. In fact the reaction to the offering seemed to be a turning point in market psychology as a feeling grew that the recent upward yield adjustments might have been overdone. The allotments of only 12½ per cent and 22 per cent on subscriptions for the new 3½ and 4 per cent issues, respectively, proved to be even smaller than had been expected, and tended further to strengthen the market.

Public subscriptions for the 4¼ per cent bond were only $316 million. While there had been no expectation that the public would want as much as $750 million, the relatively small volume of subscriptions was disappointing. However, rather than interpreting this result as a sign of

weak demand for long-term bonds, a number of observers ascribed it to other factors. These factors included the inability of some long-term investors to reach a decision in the short space of time provided, and the relatively narrow yield spread between the 1969 and 1992 issues.

The stronger market generated by the successful financing operation was reinforced during August by the President's decision not to request an immediate tax cut and by the simultaneous improvement in the corporate and municipal bond markets. Some further impetus was provided by the Treasury's announcement on August 13 that it would call for redemption, on December 15, $1.5 billion of 2¾ per cent partially tax-exempt bonds of 1960-65, a move which was interpreted by the market as indicating Treasury confidence that yields would go no higher in the months just ahead. Price gains for the month of August ranged to as much as 2½ points, and the average yield on long-term Treasury bonds receded by 10 basis points from the end-of-July high point to 3.94 per cent in late August.

The strength in the bond market continued into September, providing a favorable atmosphere for the Treasury's prerefunding in that month. In this offering, holders of six issues ($19 billion of public holdings) maturing in February and May 1963 could exchange up to $9 billion of these securities for a 3¾ per cent note maturing in August 1967 or a 4 per cent bond maturing in August 1972. The offering was well received with little net price reaction in the market and with a substantial $7.5 billion of the eligible maturities exchanged for the new issues.

Prices continued to edge higher over the rest of September, with only temporary hesitancy following the Treasury's announcement that it was considering an experimental offering of $250 million of long-term bonds through competitive bidding by underwriting syndicates and the news that the American Telephone and Telegraph Company would offer $250 million of long-term bonds in late October. A continued upward stimulus to bond prices was provided by the international financial meetings in Washington, with their aura of optimism regarding the United States balance of payments. Moreover, continued uncertainty regarding the business outlook caused some observers to suggest that the next shift in monetary policy might be toward greater ease.

By the end of September the average yield on long-term Treasury issues was 3.92 per cent, compared with 4.04 per cent in late July. The new 4¼ per cent bonds, which had elicited only limited interest when offered two months earlier at a price of 101 to yield 4.19 per cent, were trading at about 102¾, equivalent to a yield of 4.08 per cent to maturity.

The markets for corporate and municipal bonds also strengthened during August and September, influenced by many of the same factors that acted upon the Treasury market. The calling for redemption of the 2¾ per cent partially tax-exempt Treasury bonds had a particularly bullish impact in the municipal market, where a good part of the reinvestment demand by holders of the called bonds was expected to center. In addition, the volume of new corporate and municipal bond offerings declined by about a third in the third quarter, to about $1.9 billion of corporate and $1.6 billion of municipal flotations. A steady demand was evident through the period and new issues were generally well received. By the end of September Moody's indexes on high-grade corporate and municipal obligations were down to 4.31 and 3.00 per cent, 6 and 15 basis points, respectively, below the midsummer high levels, although still above the levels reached in May.

OCTOBER-NOVEMBER: SEASONAL PROVISION OF RESERVES IN PERIOD OF INTERNATIONAL CRISIS. By late September, the System turned to meeting the seasonal reserve needs that develop as the economy moves into the typical fourth-quarter rise in activity. Open market operations on balance supplied about $1 billion of reserves from September 27 through November 28. In addition, the reduction in reserve requirements against time and savings deposits, effective October 25 for reserve city banks and on November 1 for country banks, released an estimated $780 million of additional reserves. This reduced the System's need to purchase securities and thereby minimized downward pressures on short-term rates—because a good part of the securities that it would otherwise have been necessary to purchase would have had to be short-term issues, if distorting effects on long-term markets were to be avoided. Apart from the first week of the period, when System purchases of Treasury bills totaled $1.1 billion, there was no further need to buy bills in the market.

The balance of the reserve need was supplied through the purchase of $619 million of coupon issues, through $1.5 billion of repurchase agreements, and through purchases of $302 million of bills from foreign accounts. Sales and redemptions of Treasury bills during the period amounted to about $1 billion, so that on balance the seasonal provision of reserves was accomplished with only a moderate rise in System bill holdings.

The Cuban crisis, at its height from October 23 until early November, did not require any unusual responses in terms of open market operations as the market reacted to the tense situation with remarkable calmness. The System maintained as steady a posture as possible in the market, looking both to the continued normal functioning of the economy and to the atmosphere surrounding the

Treasury's November refunding operation, the terms of which had to be decided in the midst of the crisis.

The largest System operations during the October-November interval were undertaken in the statement week ended October 3, when an all-time weekly record of almost $1.5 billion of Treasury securities was purchased to counteract a precipitous decline in float from its prolonged high level in September and to offset reserve losses stemming from other market factors. In spite of this enormous injection of reserves, which included market purchases of over $1.1 billion of Treasury bills, there was only a small decline in bill rates as dealers sold bills willingly out of their large inventories. To some extent, impact on three-month bill rates was moderated by avoiding purchases in that maturity area. Moreover, the Treasury offered an additional $500 million of one-year bills in the auction on October 9, selling $2.5 billion of new bills to replace $2 billion of bills maturing October 15.

During the next three statement weeks in October the System sold or redeemed $750 million of Treasury bills to offset reserve gains through market factors. Reserve needs over the balance of the period through November 28 were met by purchases of $306 million of coupon issues, by purchasing $242 million of bills from foreign accounts, and through an extensive use of repurchase agreements (amounting to about $1,260 million during the four weeks ended November 21). The availability of these alternate means of supplying reserves was particularly useful during the first week of November, when concern over the level of bill rates heightened as the covered rate advantage of United Kingdom Treasury bills over United States Treasury bills exceeded 70 basis points—the widest spread of the year. On some occasions during November, the System sold bills to moderate downward pressure on bill rates, and offset the reserve impact of such sales by purchases of coupon issues. Coupon issues were readily available in this period because dealers were attempting to lighten the relatively large inventories they had built up during the Treasury's November refunding.

While flexibility in the conduct of open market operations was thus afforded by the ability to provide reserves without resort to the Treasury bill market, System operations both in October and November were complicated by the erratic behavior of market factors affecting reserves. At times these departed substantially from seasonal norms. In the latter part of the interval, the conduct of operations was further complicated by uncertainties regarding the extent to which member banks—especially country banks—would use the funds gained through the reduction in reserve requirements against their time and savings deposits.

As it worked out, the money market remained quite steady in October and November—moderately firm but without significant strain, as Federal funds traded consistently in a 2¾ to 3 per cent range. It temporarily became somewhat firmer in mid-October as dealer borrowing needs, which were increased in connection with the payment for the new one-year bills, converged on New York City banks.

The release of funds to reserve city banks on October 25 through the reduction in reserve requirements temporarily eased the positions of money center banks, but Federal funds traded mainly at 3 per cent after November 1. While the level of free reserves was somewhat higher in November than in October, reserve availability tended to be concentrated at country banks following the reduction in their reserve requirements. Moreover, heavy churning developed in the money market around the midmonth settlement date for the Treasury's November refunding. There was no undue tightness, however, and country-wide borrowing from the System remained moderate.

In the Treasury bill market, the three-month rate declined only slightly at the start of October despite the System's huge purchases, and the rate held within a 2.69 to 2.77 per cent range throughout October. As had been true earlier in the year, an expanded demand for longer maturities resulted in narrowing the spread between three- and six-month bills, at times to only a few basis points.

The auction of one-year bills in October attracted strong interest despite the fact that the Treasury raised an extra $500 million in the operation. The average issuing rate was 2.97 per cent, compared with 3.26 per cent in the July auction of one-year bills, when the amount was only $2 billion. By the end of October, three- and six-month bills were quoted at 2.72 and 2.80 per cent bid, respectively. Although the three-month rate was little changed from the level at the start of the month, it appeared low in relation to competitive rates abroad. Largely reflecting a decline in the cost of forward cover in the foreign exchange market, United Kingdom Treasury bills at the end of October provided a covered yield advantage of more than 70 basis points over United States bills.

It was partly this factor that prompted the Treasury, in raising money in early November, to choose the device of a strip of $1 billion of bills. In the operation, the Treasury added $100 million to each of ten outstanding bill issues maturing from January 17 through March 21, 1963. Commercial banks were not permitted to make payments through credits to Treasury Tax and Loan Accounts.

As expected, there was a strong initial rate reaction to the Treasury's announcement. The market saw the move not only as a means of adding to the supply of bills in a manner that tends to have maximum upward impact on

rates but also as an indication of continued official concern over short-term rates. System sales of Treasury bills on the day after the announcement of the bill strip tended to reinforce this belief. The outstanding three-month Treasury bill rate jumped from 2.72 per cent to 2.83 per cent following the news, but then held steady as demand expanded at the higher rate level. The auction of the strip of bills on November 7 attracted a good interest at an average issuing rate of 2.87 per cent, and rates edged downward after the auction. Before any significant decline occurred, however, the Treasury moved to increase its additions in the regular weekly bill auction from $100 million to $200 million in the final two weeks of November. On November 26, three- and six-month bills were auctioned at rates of 2.85 and 2.94 per cent, respectively, 17 and 16 basis points above the late October levels.

In the long-term bond market, underlying confidence in the outlook for stable or slightly lower interest rates remained in evidence throughout October and into early November. This confidence was based on persisting evidence of sluggishness in domestic economic conditions, coupled with a belief in the market that reasonably good progress was being made with the balance of payments. There was a continuing investment demand, augmented by purchases of dealers who sought to expand their inventories in expectation of further demand. The market also derived a temporary boost from the October 18 announcement of a 1 per cent reduction in reserve requirements against member bank time and savings deposits, which some press reports interpreted as a move toward an easier credit policy.

All of these influences were overshadowed on Monday, October 22, and for several days thereafter, by the Cuban crisis—a period in which the market's behavior was impressively calm. Inevitably there was a downward price adjustment, but investor selling of securities was very light and the price markdowns were minimal. The $250 million American Telephone and Telegraph issue was bid for on October 23, the day after the President's urgent Cuban message, and was successfully sold at a 4.30 per cent reoffering yield—only slightly above the yield expected before the crisis. This performance gave a lift to the whole market. Investor demand soon expanded again at the slightly lower price levels that had developed, and within a few days a confident tone had returned to the market.

In the crisis atmosphere of late October, the Treasury faced unusual difficulties in setting terms for its $11 billion November refunding, including also $3.8 billion of issues maturing or called for December 15. Holders of the maturing or called issues were given a choice of a 3⅛ per cent one-year certificate, a 3½ per cent note maturing November 1965, or a 4 per cent bond due in February 1972.

The market's response was favorable, particularly for the two longer issues, as the crisis atmosphere began to wane. Of the public holdings of $7.2 billion of the rights, $3.3 billion was exchanged for the 3½ per cent notes, $2.3 billion for the 4 per cent bonds, and only about $1 billion for the certificates. Attrition amounted to about 7 per cent. System holdings of $3.7 billion of rights were exchanged for the certificate.

After the successful refunding, prices of intermediate- and long-term Treasury securities continued to move higher, with several issues reaching new 1962 highs. The average yield on long-term Treasury bonds declined to 3.85 per cent by November 9—19 basis points below the end-of-July level and close to the May low point.

As mid-November approached, the intermediate- and long-term sectors of the Treasury market began to experience the lessening of demand that was already pushing short-term yields somewhat higher. Market confidence was reduced by the emergence of a more optimistic appraisal of the economic outlook highlighted by a rebounding stock market, by concern over the budget impact of a widely discussed tax cut, and by renewed concern over the balance of payments as disappointing third-quarter results became known.

Dealers consequently sought to reduce inventories which had been swollen by substantial holdings of the November refunding issues, and in addition some investor selling appeared with the approach of the November 15 settlement date for that refunding. The price declines were moderated by a continuing demand, however, including sizable System purchases and a large volume of maturity-lengthening swaps undertaken by banks and other investors. Under these influences, the market steadied in late November.

DECEMBER: A FURTHER SLIGHT SHIFT TOWARD A LESS EASY POLICY. System open market operations supplied some $760 million of reserves to the market in the period from November 29 through December 31. Once again the System was able to meet the largest portion of these needs without resort to the Treasury bill market. In fact, market purchases of bills were undertaken on only one day, December 7, when purchases totaled $256 million. Gross purchases of coupon issues amounted to $327 million, including $15 million of bonds maturing in over ten years. About $1.1 billion of new repurchase agreements was made during the period, of which $342 million was outstanding at the year's end.

Operations during the first half of December were designed to keep the money market steady in a period when

market factors were absorbing reserves in sizable volume. In addition to the System's purchase of $256 million of Treasury bills on December 7, reserves were provided during this period through purchases of coupon issues and through repurchase agreements. The money market was generally comfortable during this period despite a lower free reserve level than in November, because the distribution of funds favored money center banks. Federal funds traded mainly in a 2¾ to 2⅞ per cent range until the middle of December.

The money market turned firmer around midmonth. Dealer financing needs, inflated to record size as corporations sold securities to raise funds for dividend and tax payments, placed heavy demands on the money market banks. The System met the reserve needs associated with these developments only in part, however. For following the December 18 Open Market Committee meeting, operations were directed toward the maintenance of somewhat firmer money market conditions to offset the anticipated seasonal decline in Treasury bill rates, although still within the framework of a policy of ease. No outright purchases of securities for System Account were undertaken in the market after December 7, and reserve needs in the latter part of the month were met by making repurchase agreements in moderate volume. The effective rate for Federal funds remained at 3 per cent through December 28.

Treasury bill rates, which had declined slightly in early December, edged slightly higher in the second half of the month as demand contracted and the volume of offerings grew in the firmer money market. The Treasury's continued additions to weekly offerings also contributed to the slight rise in rates. On December 31, three- and six-month bills were quoted at 2.93 and 2.97 per cent (bid), respectively, giving a spread of only 4 basis points between the two issues. At these levels, the three-month rate was 26 basis points above the closing three-month bid rate on December 31, 1961. The six-month rate was up only 6 basis points over the year.

The long-term capital markets tended to strengthen during most of December. In the early part of the month a combination of investor and System purchases helped to reduce dealer inventories of Treasury notes and bonds from the relatively high levels reached at the time of the November refunding. Also contributing strength were the diminishing prospects for an early tax cut and related doubts about the vigor of the economy. Prices of many issues thus reached new highs for the year on December 24, and the average yield on long-term Treasury issues receded to 3.84 per cent—equaling the low point in May. In the last few days of the year, however, there was some decline in prices as some market observers began to think that the System might be shifting to a slightly less easy policy. By the end of the year, the average yield had edged up to 3.87 per cent—which was still 20 basis points below the end-of-1961 level.

Corporate bond issues during the fourth quarter amounted to about $2.7 billion, up nearly $300 million from the same period in 1961. Offerings of $1.7 billion of new tax-exempt securities were about $400 million lower than in the fourth quarter of 1961. Prices advanced in both markets during October and early November, paralleling the price rise in the Treasury market. Yields on high-grade corporate bonds reached their lowest point since early 1961 while tax-exempt yields reached their lowest level since early 1958.

Both markets weakened somewhat after early November, because of increased investor resistance at the higher price levels and the size of dealer inventories. In the corporate sector, demand soon strengthened again and brought yields to new lows for the year in late December, but in the tax-exempt area some congestion remained. At the year's end, Moody's Aaa corporate bond index stood at 4.22 per cent, slightly below the early November level and 22 basis points lower than at the end of 1961. Moody's Aaa municipal bond average, at 2.94 per cent, was somewhat above the early November level, but 37 basis points lower than at the end of 1961—and lower than at any year end since 1957.