FEDERAL RESERVE BANK OF NEW YORK

MONTHLY REVIEW

OCTOBER 1970

Contents

Volume 52 No. 10

The Business Situation

The strike at General Motors Corporation, which began in mid-September, will greatly complicate for some time to come the task of assessing the underlying business situation. This situation was, in any event, already rather mixed before the strike began—as perhaps should be expected of an economy that is apparently no longer declining but which has yet to resume a clear-cut upward trend. The rise in the unemployment rate to 5.5 percent in September and the drops in average weekly hours worked and in overtime were disturbing, although these figures have been adversely affected by technical problems of seasonal adjustment. Elsewhere in the economy, there are some indications of increased strength. While housing starts backed down in August from their July high, they remained well above the average over the first half of 1970. Private housing construction permits were up in August and substantially ahead of the pace during the first six months of 1970. The considerably easier credit conditions that have characterized the third quarter[1] should channel additional funds into housing and should also help state and local governments finance greater expenditures. Personal income posted a fairly good gain in August, and retail sales were higher in the first two months of the third quarter than earlier this year.

Price increases for consumer goods and services, as well as those for wholesale industrial commodities, have begun to show encouraging signs of moderation and to provide tangible evidence of gains in the struggle against inflation. The prices of wholesale agricultural products, however, rose sharply in September, wiping out much of the improvement in this sector that had appeared during preceding months. Furthermore, there is a distinct danger of an inflationary contract settlement in the automobile industry, which could put increased pressure on wage settlements in other sectors and ultimately on price levels.

[1] See "The Money and Bond Markets in September", this *Review*, pages 227-33.

RESIDENTIAL CONSTRUCTION

Although private housing starts in August fell to a 1.43 million unit seasonally adjusted annual rate from the 1970 peak of 1.59 million units reached the previous month, the housing outlook is appreciably stronger than earlier in the year. If September housing starts remain close to the July and August average, the third quarter of 1970 will be the best since the second quarter of last year. Residential building permits, an important indicator of the future trend in housing starts, made an encouraging upward move during August, reversing the downward thrust of the previous two months. Over the July-August interval, newly issued permits were running about 10 percent ahead of the average during the first half of this year and only slightly behind the 1969 level. The backlog of unused permits rose considerably during the first half of 1970 and remained high even after falling in July and August. Continuing improvement in the availability of mortgage funds would help translate this backlog into actual housing starts, providing a source of strength for residential construction in coming months.

SALES, INVENTORIES, AND NEW ORDERS

Another possible source of strength is retail sales. Even though advance estimates for August, which are subject to large revisions, suggest some slippage from the comparatively vigorous July pace, retail sales have been moderately strong. Over July and August, seasonally adjusted retail sales averaged approximately $30.7 billion, compared with the $30.5 billion and $29.7 billion averages for the second and first quarters of 1970. Automobile sales were sluggish in September, with one of the probable causes being the auto strike. Nevertheless, third-quarter auto sales suggest a seasonally adjusted annual pace in excess of 8 million units, ahead of the 7.6 million unit rate of sales during the first six months of the year.

Brisk sales in July kept the inventory-sales ratio for total business essentially unchanged from the 1.57 June rate, despite a $1 billion climb in total business inventories on a seasonally adjusted basis. Most of the increases in total inventories and shipments were for manufacturers of durable goods. For retail outlets, inventories changed little relative to sales, although the inventory-sales ratio for retail automotive outlets rose. (A most likely impact of a sustained strike in the automobile industry would be to lower this ratio.) August data are available only for the manufacturing sector. Manufacturers of durables increased their inventories considerably less in August than in July. Their August shipments grew less than proportionately, so that the inventory-shipments ratio rose. For nondurable goods manufacturers, both July and August have been marked by inventory decumulation and smaller shipments; their inventory-shipments ratio, which had remained stable in July, rose during August.

After three monthly gains in a row, new orders for durable goods dropped $0.8 billion in August to a seasonally adjusted $30.6 billion. Even so, the August level was ahead of all previous months in 1970 with the exception of July. The August decline was primarily in new defense orders and followed the large increase in July, which marked the start of the 1971 fiscal year. Excluding defense, new orders for durable goods rose during August and were running $1.0 billion ahead of the average for the first seven months of the year. In the closely watched producers' capital goods sector, new orders fell $0.3 billion, almost back to the April level. For durable goods industries as a whole, new orders declined faster than shipments in August. As a result, the backlog of unfilled orders dropped $0.8 billion to $80.5 billion, with the producer capital goods sector accounting for $0.5 billion of the decline. The backlog of unfilled orders has fallen in each month of 1970, with the exception of July which was heavily influenced by the surge in new defense goods orders.

INDUSTRIAL PRODUCTION AND STRIKE ACTIVITY

The Federal Reserve Board index of industrial production edged down in August, erasing about half the July gain. Output in August was off 3.2 percent from the peak reached in July 1969. Of the major industry groupings, only mining output, which often moves erratically on a month-to-month basis, rose as a result of increases in gas and oil production. The rather small decline in manufacturing was centered in durable goods, particularly iron and steel. Production of consumer goods was slightly below the July level and that of equipment, including defense, slipped for the fifth consecutive month to a level nearly 10 percent below the high reached in September of last year.

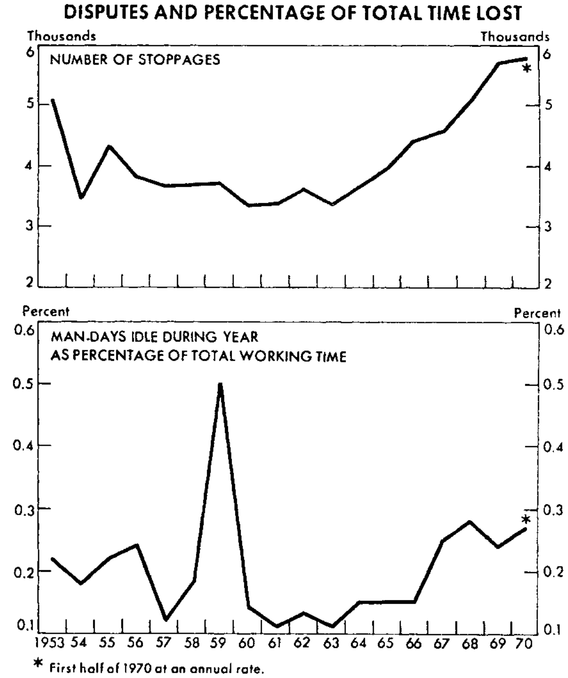
One important question currently facing the economy is how industrial production and business activity in general will fare in the wake of the auto strike that started in mid-September, for a prolonged dispute might adversely affect the timing and size of the expansion. Further labor uncertainty stems from the possibility of nationwide rail tie-ups that could have large secondary effects.

Each of the major automobile strikes during 1961, 1964, and 1967 seems to have been preceded by a quickening in the pace of automobile production and to have been closely followed by a surge in output. Extra production before and after the strikes apparently compensated for the losses during the disputes. The impact of the current dispute cannot, however, be predicted with any certainty from these earlier experiences, which occurred when the economy had already developed considerable upward momentum. In contrast, total industrial production and some other major economic indicators have not as yet established a clear-cut upward trend.

Overall strike activity has increased during the past sev-

Chart I

WORK STOPPAGES RESULTING FROM LABOR-MANAGEMENT DISPUTES AND PERCENTAGE OF TOTAL TIME LOST



* First half of 1970 at an annual rate.

Source: United States Department of Labor, Bureau of Labor Statistics.

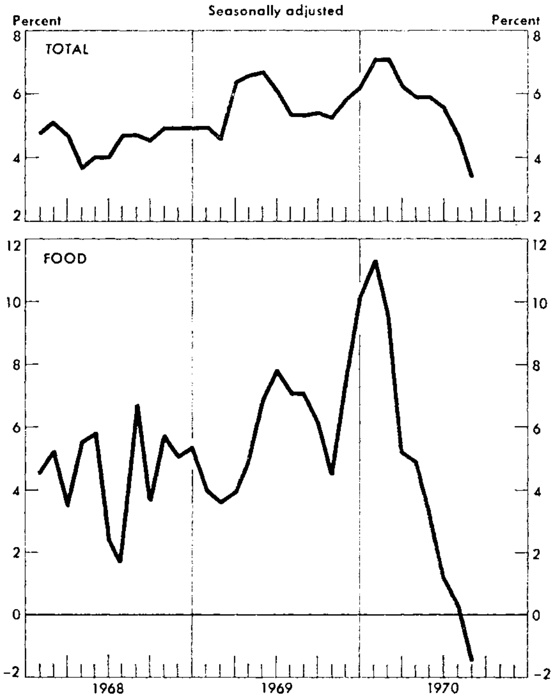
eral years. Chart I depicts the number of disputes and the percentage of total working time lost by the employees directly involved in these stoppages beginning in each year since 1953. Available data cover only the first six months of 1970, and developments emerging over the final half of the year may be worse in view of the potentially large impact of the automobile dispute. (The huge 1959 increase in time lost is directly attributable to the 116-day steel strike, involving over half a million workers, which ended after the eighty-day "cooling off" period of the Taft-Hartley Act was invoked.) It should be noted that 1969 was characterized by a relatively "light" collective bargaining schedule, since approximately 2½ million of the roughly 10 million workers covered by "major" agreements[2] were engaged in negotiations. This year, in contrast, the number of workers whose contracts are up for renewal is closer to 5 million. Labor demands in these negotiations have been influenced by expectations of continuing inflation. Recent movements in the cost of living, however, offer some hope that the pace of price increases is at last slowing. Yet, an inflationary settlement of the auto strike could place additional pressure on wage demands in forthcoming labor negotiations.

Chart II

CONSUMER PRICES

ANNUAL RATE OF INCREASE FROM THREE MONTHS EARLIER

Seasonally adjusted



Source: United States Department of Labor, Bureau of Labor Statistics.

PRICES

The seasonally adjusted consumer price index for August rose at a moderate 2.7 percent annual rate, the third consecutive monthly slowdown in the rate of increase. An important contribution to the August improvement on a seasonally adjusted basis was made by food prices. The rate of change in food prices, as measured by percentage changes from three months earlier (shown in Chart II) to smooth out some of the erratic monthly movements, has been dropping markedly since early this year under the influence of greater supplies of agricultural products. Similarly, there has been a substantial decline in the annual rate of price increases for the overall index since early this year. Increases in the cost of consumer services, although slower in July and August than in the first half of 1970, remained excessively high. Excluding food and services, prices of consumer commodities rose in annual terms at a seasonally adjusted 2.0 percent in August, the same rate as in July but the lowest for any month of 1970 except February.

In contrast to the slowing in consumer price increases, the pace of wholesale prices rose to a seasonally adjusted annual rate of 5.1 percent in September, following August's 1.0 percent decline. Agricultural prices largely accounted for these differences. While the consumer price index for food fell in August, wholesale agricultural prices surged ahead at more than a 15 percent annual rate in September, after having fallen at about a 5 percent rate in August. Much of this upward thrust came from higher prices for corn and other grains, linked to anticipations of short supplies because of the corn blight and adverse weather conditions. As a consequence of the September increase, prices for farm products returned to the level of this past April, wiping out all but a small portion of the improvement recorded this year. This raises the prospect that consumer prices for food could soon reflect these developments. However, industrial wholesale commodities prices rose in September by only 2 percent, the same relatively slow pace as in August. This is additional evidence of progress against inflation in an important part of the econ-

[2] The Bureau of Labor Statistics series on major collective bargaining agreements pertains to contracts covering 1,000 or more workers.

omy. Most of the slowing in industrial prices has been in manufactured goods, as fuel and power costs continue to be a source of upward pressure.

PERSONAL INCOME AND THE LABOR MARKET

July and August have been characterized by a marked improvement in the growth of personal income, compared with the second quarter of this year when there was little gain apart from the rise in Federal pay scales and social security benefits. Preliminary estimates for August indicate that personal income rose by $4.1 billion to a seasonally adjusted annual rate of $807.4 billion and, after a substantial upward revision, a $5.1 billion rise was recorded in July.

Larger wage and salary disbursements, mainly in the distributive, services, and government sectors, accounted for a major portion of the personal income gain during both July and August. Wages and salaries in manufacturing, which constitute roughly one fifth of overall personal income, were virtually unchanged in August, after relatively small gains in both June and July and decreases in four of the first five months of this year. These manufacturing data, unlike total personal income, do not reflect the direct impact of Federal pay and social security changes implemented earlier this year and, as such, are indicative of a basic lack of strength in an important sector of the economy.

Labor market weakness continued to be apparent in September, as unemployment rose and hours of work fell. Although seasonally adjusted nonagricultural employment was unchanged in September after five straight months of decline, downward revisions for both July and August reveal even more labor market slack than had been previously indicated. September employment gains in state and local government, trade, services, finance, and transportation and public utilities balanced cutbacks in construction and mining. Manufacturing employment, which had declined sharply since September of last year, was unchanged during September of this year. While hours of work in manufacturing fell to the lowest point since March 1961, a portion of this decline may stem from this year's inclusion of Labor Day in the survey week, thereby reducing the weekly payroll hours of those employees not paid for the holiday.

The September household survey indicated that the seasonally adjusted unemployment rate rose to 5.5 percent from August's 5.1 percent level. The jobless rate in September was the highest since January 1964 and stemmed from the combination of a large expansion in the labor force and unchanging employment. Patterns of unemployment for younger workers suggest that data for September and the preceding summer months may have been distorted by the difficulty of seasonal adjustment. Both the payroll and household surveys for September were conducted prior to the start of the strike at General Motors; should the dispute continue through mid-October, labor market data for that month may also be difficult to interpret. Each survey would be influenced in a different manner by the strike. For the household survey, strikers are counted as employed so that any increase in the unemployment rate associated with the dispute would have to come from its secondary effects, e.g., layoffs of employees working for nonstruck suppliers of parts and materials. Since neither strikers nor laid-off workers appear on company payrolls, nonagricultural employment as recorded in the payroll survey could be markedly depressed by the strike.

The Money and Bond Markets in September

The widespread apprehensions over a possible liquidity crisis that had dominated the midsummer period were dissipated by September, and an increasingly optimistic outlook about the prospects for lower interest rates was evident in the nation's financial markets during most of the month. Even concern over events in the Mideast did not appreciably alter investor expectations of interest rate declines. Major factors underlying the favorable market atmosphere in September were the continuation of comfortable money market conditions and the absence of strong demands for bank credit. Market sentiment was also strengthened somewhat by the auto strike, which was regarded as adding to the near-term sluggishness of the economy.

In this environment, most money market rates continued the downward trend which had been under way since midyear. The Federal funds rate even slipped below 6 percent for a time, generating rumors of a possible cut in the Federal Reserve discount rate. The continued decline in the cost of short-term funds prompted a reduction in the prime lending rate by ½ percent to 7½ percent at several small banks early in September, and at a large Philadelphia bank on September 15. As it became apparent that loan demand was only modest, even at the midmonth corporate tax date, most of the major money market banks followed suit in the week of September 21.

Developments related to the prime rate reduction lent a buoyant tone to all market sectors during most of the second half of the month. This was particularly helpful to the capital market, which was laboring under an extremely heavy new issue calendar. As the month drew to a close, concern over the large volume of offerings scheduled for this market in October caused yields to edge higher, but most new issues were continuing to receive favorable receptions.

Both bank credit and the money supply, which had grown quite rapidly in August, posted small declines in September. Short-term variations in these volatile aggregates, however, should not be overemphasized. The process of reintermediation which began in the wake of the partial suspension of Regulation Q in late June continued through September, giving rise to a further strong increase in large certificates of deposit (CD's) outstanding. Although member bank reserves grew rapidly, most of the increase was associated with this strong expansion of time deposits.

BANK RESERVES AND THE MONEY MARKET

Money market conditions, which had eased progressively during August, remained comfortable throughout September. Over the first two weeks of the month, reserves supplied by System open market operations exceeded reserves drained by operating transactions and the increase in required reserves (see Table I). Despite the generous provision of reserves, the Federal funds rate rose over this period, particularly during the week ended September 9. The cautious accumulation of excess reserves by banks prior to the Labor Day weekend, and a similar buildup in excess reserves by the California banks in advance of that state's Admission Day (a bank holiday which fell on the September 9 settlement date), contributed to upward pressure on the Federal funds rate early in the month (see Chart I). As these pressures abated, the Federal funds rate dropped back to the range of late August. Then, under the weight of substantial excess reserve accumulations, the rate persistently slipped below 6 percent during the September 23 statement week. In the face of the easy tone of the money market, System open market operations absorbed reserves fairly aggressively during that week, more than offsetting the net provision of reserves by other factors. Thereafter, the Federal funds rate returned to the 6 to 6½ percent range in which it had moved earlier.

Interest rates on most other money market instruments moved considerably lower in September. On balance over the third quarter, the decline in short-term interest rates has been marked. Rates on bankers' acceptances, prime commercial paper of four- to six-month maturity, and three-month Euro-dollars all declined by 100 basis points or more between late June and the end of September.

This sustained and pronounced downward trend in the cost of short-term funds, combined with a moderation in loan demand in September, provided impetus for the widespread reduction in the prime lending rate—the interest rate charged by commercial banks on loans to their largest and most creditworthy borrowers. Prior to this ½ percentage point reduction, the rate had stood at 8 percent since March 1970.

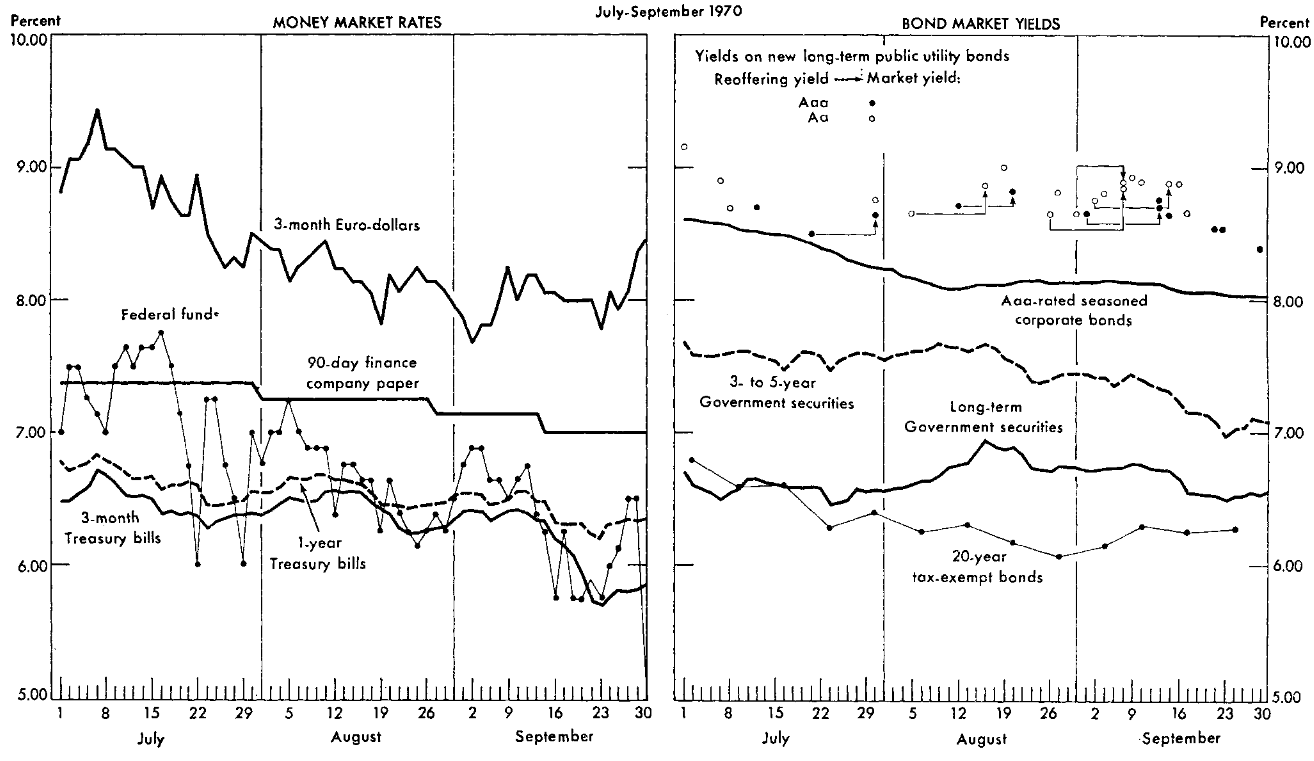
The general improvement in money market conditions in recent months has also been evident in the decline in member bank borrowings from the Federal Reserve Banks (see Chart II). Severe pressures in the commercial paper market during late June and July had resulted in the transfer of substantial demands for short-term funds from that market to the commercial banks. In turn, the banks borrowed heavily from the Federal Reserve Banks, which fulfilled their historic role as lender of last resort. As fears of a liquidity crisis subsided and pressures on the banking system eased, the level of member bank borrowings declined sharply from an average of $1.3 billion in July to $609 million in September, bringing these borrowings to their lowest level since November 1968.

The commercial paper market, which was still a bit uneasy in August, stabilized further in September. The volume outstanding of commercial paper (other than bank related) increased moderately, following a small decline in August and severe attrition in July. As commercial banks continued to realign their liability structure in the light

Chart I

SELECTED INTEREST RATES

July-September 1970



Note: Data are shown for business days only.

MONEY MARKET RATES QUOTED: Bid rates for three-month Euro-dollars in London; offering rates for directly placed finance company paper; the effective rate on Federal funds (the rate most representative of the transactions executed); closing bid rates (quoted in terms of rate of discount) on newest outstanding three-month and one-year Treasury bills.

BOND MARKET YIELDS QUOTED: Yields on new Aaa- and Aa-rated public utility bonds (arrows point from underwriting syndicate reoffering yield on a given issue to market yield on the same issue immediately after it has been released from syndicate restrictions); daily averages of yields on seasoned Aaa-rated corporate bonds; daily averages of yields on long-term Government securities (bonds due or callable in ten years or more) and on Government securities due in three to five years, computed on the basis of closing bid prices; Thursday averages of yields on twenty seasoned twenty-year tax-exempt bonds (carrying Moody's ratings of Aaa, Aa, A, and Baa).

Sources: Federal Reserve Bank of New York, Board of Governors of the Federal Reserve System, Moody's Investors Service, and The Weekly Bond Buyer.

of the August 17 Federal Reserve Board action,[1] the volume of bank-related commercial paper outstanding contracted in September for the second consecutive month. In effect, the imposition of reserve requirements on funds which banks receive from the sale of their affiliates' commercial paper eliminates the special attractiveness of these obligations to the banks. In addition, the reduction in reserves required to be held against time deposits and the partial suspension of Regulation Q in June made large CD's a more desirable source of funds. The net result of these three actions was to place large CD's and bank-related commercial paper on an essentially equal footing.

The moderation in commercial bank lending that occurred during September reflected in part a slower expansion of loans to commercial and industrial borrowers. To some extent, this was related to the considerably lower level of corporate tax liabilities in September relative to the same month last year. As a result of reduced corporate profit margins and expiration of the tax surcharge, corporate tax payments may have been as much as $1 billion less than in September 1969.

Although bank credit contracted slightly during September, banks again received heavy time deposit inflows (see Chart III), as the process of reintermediation which had been under way since late June continued. Despite typically heavy maturities at the September corporate dividend and corporate tax dates, the volume of large CD's outstanding posted a sharp $1.8 billion gain through September 23. This increase brings the level of these obligations outstanding to $22.0 billion—not far below the $24.3 billion level at which they stood at the beginning of December 1968, prior to the severe fourteen-month runoff that amounted to approximately $14.0 billion (see Chart IV).

The narrowly defined money supply—currency held by the public plus demand deposits adjusted—contracted in September at an annual rate of 1.5 percent.[2] The rate of growth of this aggregate over the third quarter averaged 4.6 percent, bringing the rate of expansion so far this year to 4.3 percent. Since the series is erratic and subject to revision, longer time spans are more useful than monthly movements in examining the behavior of the money supply.

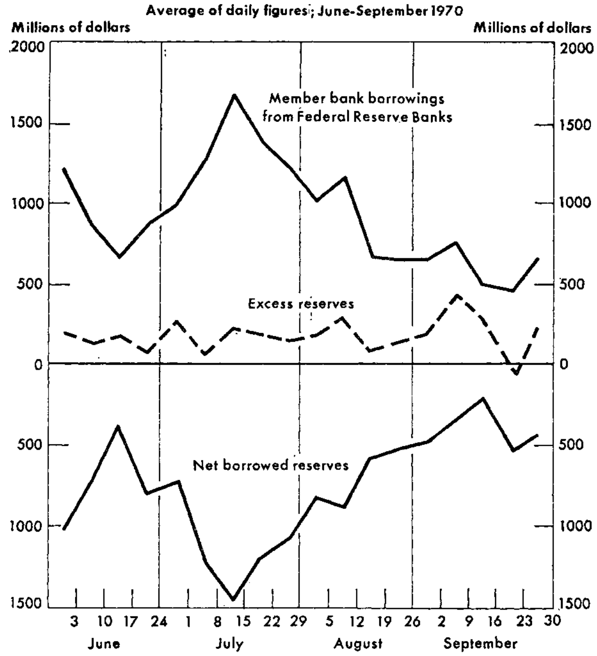
[1] For a discussion, see this *Review* (September 1970), page 213.

[2] Because final September data are not yet available, calculations related to the money supply and bank credit proxy are based on an average of the four weeks ended September 23.

Chart II

MEMBER BANK BORROWINGS AND EXCESS RESERVES

Average of daily figures; June-September 1970



Source: Board of Governors of the Federal Reserve System.

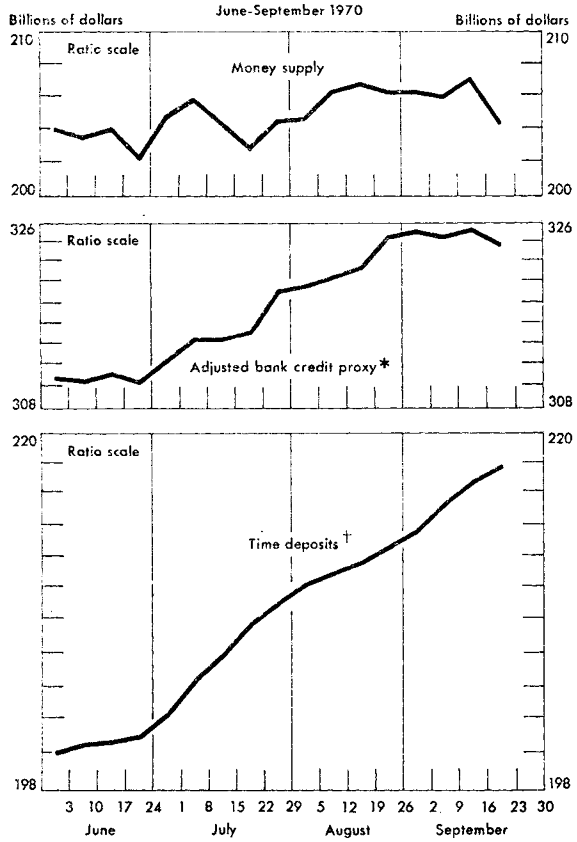
The adjusted bank credit proxy, a measure of the liabilities of the banking system, grew more slowly in September than in the previous month. The expansion of the adjusted proxy decelerated from 24 percent in August to 11.8 percent in September, as the rapid growth of time deposits was somewhat offset by the contraction in demand deposits and nondeposit sources of funds.

THE GOVERNMENT SECURITIES MARKET

Optimistic investor expectations about the near-term outlook for interest rates prompted substantial increases in prices of both intermediate- and long-term Government securities in September, although most of the improvement was confined to the second half of the month. An end-of-summer lull in trading activity was accompanied by a cautious atmosphere in early September. Concern that the monetary aggregates might be expanding at an unsustainable rate exerted a restraining influence, and some hesitancy developed as the Mideast situation worsened. Long-term Government securities prices were also slightly depressed by the heavy supply pressures facing the corporate bond market. Nevertheless, selling pressures did not materialize, and long-term prices were almost unchanged in the first half of the month. Intermediate-term Treasury obligations benefited early in September from moderate demand by commercial banks, and by midmonth prices were slightly above their end-of-August levels.

Developments in the second half of September were dominated by investor enthusiasm over the prime rate reduction and the prospects of further interest rate declines. The moderate demand for bank loans at the midmonth corporate tax date gave rise to speculation that a general reduction in the prime rate was imminent, and this expectation generated a significant improvement in prices of almost all Treasury obligations during the third week of September. Although to some extent the effects of a general prime rate reduction had been discounted in advance, prices of both intermediate- and long-term Government securities continued to rise sharply following the widespread reductions in this interest rate on September 21 and 22. These price advances were fueled by speculation that the Federal Reserve discount rate might be reduced from 6 percent, since Federal funds were trading below this rate. The announcement on September 23 that the consumer price index had posted only a small increase in August also contributed to the buoyant outlook by suggesting that inflationary pressures might be subsiding. At the close of the month, however, some easing of prices occurred, as participants noted the slightly firmer tone developing in the money market and looked ahead to Treasury financing operations. The Government will refinance $7.7 billion of maturing obligations in November, and market participants also expected a new Treasury cash borrowing in October.

Chart III
CREDIT AND MONETARY AGGREGATES
Seasonally adjusted weekly averages
June-September 1970



Note: Data for September are preliminary.

*Total member bank deposits subject to reserve requirements plus nondeposit liabilities, including Euro-dollar borrowings and commercial paper issued by bank holding companies or other affiliates.

† At all commercial banks.

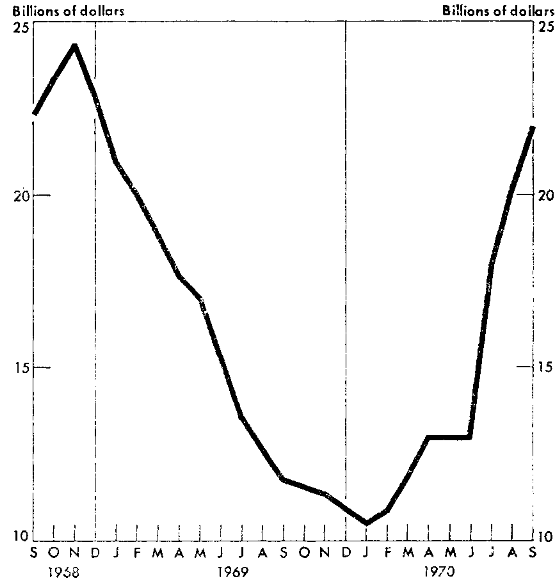
In the Treasury bill sector, dealer inventory positions were quite sizable and retail demand very light as the month began. The occurrence of two weekly bill auctions during the calendar week ended September 4 (because of the September 7 Labor Day holiday) contributed to a cautious tone in the market. Moreover, there was concern in this sector of the market as well that the monetary authorities might have to bring about firmer money market conditions if the monetary aggregates continued to grow as rapidly as they had in August. Investment demand remained generally slack until the September 16 statement week, when stronger commercial bank demand and the optimistic outlook regarding the prime rate reduction caused Treasury bill rates to fall. The favorable effect of the reduction in the prime rate at several major banks on September 21 was seen immediately in that day's bill auction, when the yield on new thirteen-week bills dropped sharply to 5.95 percent, the lowest rate since the March 24, 1969 sale. The yield on the companion 26-week issue also declined markedly, falling to 6.24 percent—its lowest point since March 23, 1970. Bill rates continued to tumble for a brief period after the prime rate reduction, but turned up in the September 30 statement week as a result of the somewhat firmer tone in the market and anticipation of the upcoming Treasury financings.

OTHER SECURITIES MARKETS

Although demands for short-term credit were relatively light in September, a very heavy volume of new taxable and tax-exempt debt was floated during the month. Corporate and state and local government offerings in September amounted to approximately $4.0 billion, one of the largest monthly calendars on record. In part, the sizable volume of new issues in the corporate sector during September apparently continued to reflect the refinancing of short-term obligations and the repayment of bank loans with long-term funds. The volume of corporate financing carried out in the capital market thus far this year has been massive. As of September 30, a total of about $20.0 billion in corporate bond issues had reached the market by comparison with $13.8 billion over the first nine months of 1969. In the municipal sector, the generally lower range of yields during August and September prompted some state and local governments to undertake financings which were not possible earlier this year, when market rates were generally well above the maximum interest rate ceilings that apply in certain localities. In the face of September's heavy supply pressures, prices of both corporate and municipal obligations eased during the first two weeks of the month. As the month progressed, investors' expectations were buoyed by events related to the prime rate reduction, and prices then improved notably. Toward the close of September, however, prices of both tax-exempt and taxable issues again moved downward, as concern over the heavy October calendar and some investor resistance to lower yields developed. But the good reception given to several large issues on the final days of the month steadied the market and revived a more hopeful outlook.

Chart IV

LARGE CERTIFICATES OF DEPOSIT



Note: Latest data are for September 23, 1970.
Source: Board of Governors of the Federal Reserve System.

Developments in the corporate sector appeared to be off to a favorable start when a $175 million issue of New England Telephone and Telegraph Company debentures marketed on the first day of the month received good investor response. The Aaa-rated issue of the Bell System unit was priced to yield 8.65 percent at maturity in forty years—somewhat below the 8.705 percent return on a comparable Bell System financing on August 12. However, investor interest in most other new issues marketed during the first two weeks of the month waned, as the visible supply of new issues burgeoned in the face of an already heavy floating supply of recent offerings. During the two-week period, several underwriting syndicates lifted price restrictions on securities brought to the market in late August, and these issues subsequently traded at a discount. Prices of seasoned issues declined over the first two weeks in very quiet trading activity, as investors marked time awaiting pricing terms on new issues. The downward price slide was halted rather abruptly at the end of the second week, when a new issue touched a favorable price level and sold out quickly, primarily to institutional investors. Smaller issues were also well received, and prices of outstanding corporate securities began to rise. The better tone was subsequently buoyed by the prime rate reduction, and prices continued to advance until investor resistance to the lower range of yields on certain new issues and some profit taking during the fourth week of the month stemmed the rally. However, a good reception was accorded the large issues offered by Western Electric Company and International Telephone and Telegraph Company on the last two days of September, and yields were again declining as the month closed.

Prices of tax-exempt issues followed a similar pattern during September. New issue activity was fairly light early in the month, but a growing calendar and a downward trend in corporate prices kept investors wary. Dealers began cutting prices of both older and new issues, but were unable to reduce their inventories significantly. The full force of supply pressures was felt during the third week of the month when more than one third of the September calendar of tax-exempt offerings, or about $500 million in new issues, was brought to the market. Despite this pressure, however, the week's offerings were very well received as prices were set at levels low enough to stimulate interest. Market participants were encouraged by these

Table I

FACTORS TENDING TO INCREASE OR DECREASE MEMBER BANK RESERVES, SEPTEMBER 1970

In millions of dollars; (+) denotes increase (—) decrease in excess reserves

Factors	Changes in daily averages— week ended on					Net changes
	Sept. 2	Sept. 9	Sept. 16	Sept. 23	Sept. 30	
"Market" factors						
Member bank required reserves	— 153	— 324	— 69	+ 138	— 315	— 723
Operating transactions (subtotal)	— 30	+ 48	+ 127	+ 474	— 170	+ 449
Federal Reserve float	— 216	+ 378	+ 117	+ 587	— 821	+ 45
Treasury operations*	+ 15	— 78	+ 154	— 124	+ 35	+ 2
Gold and foreign account	+ 27	+ 4	+ 6	— 15	— 210	— 188
Currency outside banks	+ 196	— 170	— 196	— 125	+ 828	+ 533
Other Federal Reserve liabilities and capital	— 54	— 86	+ 46	+ 151	— 2	+ 55
Total "market" factors	— 183	— 276	+ 58	+ 612	— 485	— 274
Direct Federal Reserve credit transactions						
Open market operations (subtotal)	+ 189	+ 370	+ 15	— 942	+ 488	+ 120
Outright holdings:						
Government securities	+ 31	+ 193	— 236	— 358	+ 222	— 148
Bankers' acceptances	— 1	+ 4	— 1	—	— 3	— 1
Repurchase agreements:						
Government securities	+ 133	+ 123	+ 250	— 566	+ 196	+ 196
Bankers' acceptances	+ 13	+ 13	+ 14	— 40	+ 24	+ 24
Federal agency obligations	+ 13	+ 37	— 12	— 38	+ 49	+ 49
Member bank borrowings	—	+ 103	— 263	— 42	+ 205	+ 3
Other Federal Reserve assets†	+ 34	+ 40	+ 54	+ 9	+ 97	+ 234
Total	+ 223	+ 513	— 194	— 975	+ 789	+ 356
Excess reserves	+ 40	+ 237	— 136	— 363	+ 304	+ 82

	Daily average levels					Monthly averages
Member bank:						
Total reserves, including vault cash	28,370	28,931	28,864	28,363	28,982	28,702‡
Required reserves	28,192	28,516	28,585	28,447	28,762	28,500‡
Excess reserves	178	415	279	— 84	220	202‡
Borrowings	660	763	500	458	663	609‡
Free, or net borrowed (—), reserves	— 482	— 348	— 221	— 542	— 443	— 407‡
Nonborrowed reserves	27,710	28,168	28,364	27,905	28,319	28,093‡
Net carry-over, excess or deficit (—)§	94	65	214	210	48	126‡

	Changes in Wednesday levels					Net changes
System Account holdings of Government securities maturing in:						
Less than one year	+ 677	— 487	— 867	+ 660	+ 288	+ 271
More than one year	—	—	+ 93	—	+ 73	+ 166
Total	+ 677	— 487	— 774	+ 660	+ 361	+ 437

Note: Because of rounding, figures do not necessarily add to totals.

* Includes changes in Treasury currency and cash.

† Includes assets denominated in foreign currencies.

‡ Average for five weeks ended on September 30.

§ Not reflected in data above.

Table II

RESERVE POSITIONS OF MAJOR RESERVE CITY BANKS SEPTEMBER 1970

In millions of dollars

Factors affecting basic reserve positions	Daily averages—week ended on					Averages of five weeks ended on Sept. 30
	Sept. 2	Sept. 9	Sept. 16	Sept. 23	Sept. 30	
Eight banks in New York City						
Reserve excess or deficiency (—)*	20	82	127	— 84	103	50
Less borrowings from Reserve Banks	79	160	89	75	103	101
Less net interbank Federal funds purchases or sales (—)	1,806	2,197	2,100	1,768	1,265	1,827
Gross purchases	2,440	2,778	2,897	2,650	1,979	2,549
Gross sales	634	582	797	882	714	722
Equals net basic reserve surplus or deficit (—)	—1,865	—2,275	—2,062	—1,927	—1,265	—1,879
Net loans to Government securities dealers	1,025	942	776	996	664	881
Net carry-over, excess or deficit (—)†	15	16	50	66	— 23	25
Thirty-eight banks outside New York City						
Reserve excess or deficiency (—)*	35	90	— 12	34	71	44
Less borrowings from Reserve Banks	169	143	98	77	93	116
Less net interbank Federal funds purchases or sales (—)	3,577	4,297	4,677	4,008	3,389	3,990
Gross purchases	5,213	6,039	6,330	5,804	4,912	5,660
Gross sales	1,636	1,742	1,653	1,796	1,522	1,670
Equals net basic reserve surplus or deficit (—)	—3,711	—4,350	—4,787	—4,051	—3,411	—4,062
Net loans to Government securities dealers	1,080	933	1,240	1,047	799	1,020
Net carry-over, excess or deficit (—)†	1	20	57	42	6	23

Note: Because of rounding, figures do not necessarily add to totals.

* Reserves held after all adjustments applicable to the reporting period less required reserves.

† Not reflected in data above.

Table III

AVERAGE ISSUING RATES* AT REGULAR TREASURY BILL AUCTIONS

In percent

Maturities	Weekly auction dates—September 1970			
	Sept. 4	Sept. 14	Sept. 21	Sept. 28
Three-month	6.365	6.314	5.954	5.807
Six-month	6.555	6.494	6.241	6.373

Maturities	Monthly auction dates—July-September 1970		
	July 23	August 25	September 24
Nine-month	6.467	6.510	6.237
One-year	6.379	6.396	6.216

* Interest rates on bills are quoted in terms of a 360-day year, with the discounts from par as the return on the face amount of the bills payable at maturity. Bond yield equivalents, related to the amount actually invested, would be slightly higher.

developments, and prices of seasoned issues began to move higher. Demand from commercial banks—particularly for intermediate-term maturities—played an important role in the price increases of these securities. Spurred by general expectations of further yield declines, prices of state and local government issues continued to advance. Subsequently, investors began to consolidate their positions, and some selling pressures caused prices to ease slightly. But the month closed on a favorable note in this sector as well, with most prices edging higher in spite of an extremely large supply of forthcoming tax-exempt offerings. The longer maturities of a number of tax-exempt issues proved difficult to place in September because of lack of interest by institutional investors. As a result, price cutting on these securities was widespread, with corresponding upward pressures on yields. *The Weekly Bond Buyer's* index of yields on twenty municipal bonds rose by 21 basis points to 6.28 percent in the four weeks ended September 24.

Federal agency issues marketed during the month were very well received. The Federal Home Loan Banks' offering on September 10 of $400 million of 7.35 percent one-year bonds and $250 million of 7⅜ percent 26-month bonds had an excellent reception, and these securities rose to a premium in subsequent trading. A $200 million offering of 8⅝ percent Federal National Mortgage Association twenty-year mortgage-backed bonds guaranteed by the Government National Mortgage Association, which had been postponed in August because of less favorable market conditions, was very well received on September 11 and also rose quickly to a premium. Three other major offerings on September 17 encountered very favorable receptions as well. These were $258.2 million of six-month Bank for Cooperatives debentures priced to yield 7.10 percent, $100 million of that agency's three-year debentures offered at 7.30 percent, and $526.5 million of nine-month Federal Intermediate Credit Bank debentures offered at 7.10 percent.

Subscriptions to the MONTHLY REVIEW are available to the public without charge. Additional copies of any issue may be obtained from the Public Information Department, Federal Reserve Bank of New York, 33 Liberty Street, New York, N.Y. 10045.

Persons in foreign countries may request that copies of the MONTHLY REVIEW be sent to them by "air mail-other articles". The postage charge amounts to approximately half the price of regular air mail and is payable in advance. Requests for this service and inquiries about rates should be directed to the Public Information Department, Federal Reserve Bank of New York, 33 Liberty Street, New York, N.Y. 10045.

A Day at the Trading Desk*

By ALAN R. HOLMES
Senior Vice President, Federal Reserve Bank of New York and Manager of the System Open Market Account

What I would like to do is try to convey to you some of the flavor of the fascinating job that we at the Trading Desk of the New York Federal Reserve Bank have in translating the policy decisions of the Federal Open Market Committee into concrete dollars and cents operations in the open market. I think it is a good general rule for the Manager of the System Open Market Account to keep his mouth shut and work quietly behind the impersonal screen of the money market. But there seems to be enough lack of understanding about Federal Reserve operations in the press, in the academic world, and even in financial circles to warrant an attempt to set out for you just what it is that we do at the Desk and how we go about it. So this is a "how to do it" talk, not a discussion of Federal Reserve policy or current monetary problems.

Perhaps the best way to start is to take a quick look at the institutional framework within which open market operations are conducted and at the tools of open market operations. Then I would like to turn to the instructions we receive from the Open Market Committee and go on to a description of how and why we operate in the markets.

As you know, open market policy is determined by the Federal Open Market Committee, composed of the seven members of the Board of Governors and five Reserve Bank presidents. Actual operations for the entire System are conducted by the Federal Reserve Bank of New York which has been designated by the Committee as its operating arm. Each Reserve Bank, however, participates in System holdings with a daily sharing out of all purchases and sales among the twelve Reserve Banks. The Federal Reserve is not—of course—a profit-oriented institution. But with a portfolio approaching $60 billion in Government securities and no problem with financing costs, it is hard not to make money. Last year earnings from the System portfolio amounted to over $3 billion, distributed among the Reserve Banks, but with the lion's share subsequently being paid by the Reserve Banks into the United States Treasury.

I should note in passing that, in addition to System open market operations, the Trading Desk also acts as agent for the Treasury in its market and financing operations and on behalf of foreign central banks. In this respect it is rather interesting that for the past several years the volume of outright purchases and sales for foreign central banks has exceeded the volume undertaken for the System Account. This is a constant reminder of the linkages between our own money and securities markets and the international money market.

I am sure that there is no need to say much to this audience about the tools that the Federal Reserve uses to carry out open market operations. The chief instrument, of course, is the outright purchase or sale of Government securities. A purchase of Government securities by the Federal Reserve adds reserves to the banking system—other things being equal—as payment is made to the reserve account of a member bank somewhere in the United States. And if our operations do in fact add to reserves, banks can expand their lending and investment activities. Similarly, a sale of securities by the Federal Reserve takes reserves away from the banking system and restricts the ability of the banks to make loans and investments.

Besides outright operations in Government securities, we also acquire Government securities and Government agency securities under repurchase agreement; that is, we buy securities—injecting reserves into the market—and at the same time execute a contract to resell them on a fixed

* An address delivered before the twenty-first annual investment seminar of the New York State Bankers Association, New York City, September 18, 1970.

date, thereby withdrawing reserves at that future time. Since 1966, we also have used the matched sale-purchase agreement, under which we sell securities to the market and agree to buy them back at a specified future date, usually in a day or so. The repurchase agreement and the matched sale-purchase agreement add to our flexibility in handling temporary reserve needs or excesses with a minimum disturbance to the securities market.

In addition to operations in Governments, we do a similar but far more modest business in prime bankers' acceptances for the account of the New York Bank under the direction of the Open Market Committee.

These, then, are the tools we use to affect the reserve position of the banking system.

The Federal Reserve, however, is not the only—or even the major—influence on bank reserve positions and on the money and credit markets. Each and every day there are millions of private decisions to spend, to save, and to invest that result in some net change in the demand for money, liquidity, and credit. The net impact of this myriad of individual decisions and transactions—and they may involve foreign as well as domestic transactions—tends to be transmitted through the banking and credit system. Starting with individual banks, the impact works through regional money centers and finally converges on the New York money market. An increase in the demand for money or credit, of course, tends to be reflected in firmer conditions in the money market, a faster growth rate in the money or credit aggregates, and a greater demand for bank reserves; at least it would do so in the absence of offsetting System open market operations.

In addition, there are a number of technical factors, with which you as bankers are all familiar, that may—and do—absorb or supply reserves to the banking system in large amounts. I refer to such things as Federal Reserve float, the level of Treasury balances held at the Reserve Banks, the flow of currency into or out of circulation, changes in the United States gold stock and other international reserve assets, or activity under the Federal Reserve foreign currency swap network. All these factors are obviously outside the control of the Trading Desk, but we have to be prepared to deal with changes in them. And change they do, with fluctuations supplying or absorbing reserves in amounts running up into the hundreds of millions—or even more—from day to day or week to week. On many occasions, large open market operations are required just to prevent these "natural" flows from disrupting the reserve position of the banking system and the money market.

Thus, it is well to bear in mind that a "firmer" Federal Reserve policy cannot always be equated with net sales of Government securities, or an "easier" policy with net purchases. What really matters is the combination of market factors and Federal Reserve operations and the resultant impact of the two on bank reserves and ultimately on the monetary and credit aggregates and on interest rates. In a growing economy, even a policy of restraint is very likely to require substantial net purchases of securities over time—at least in the absence of changes in reserve requirements or discount window use. Last year, which I am sure most of you would not classify as a period of monetary ease, we added over $4 billion to our portfolio of Governments.

With this very sketchy background in mind, let me turn to the process by which the Federal Open Market Committee transmits its instructions to the Federal Reserve Bank of New York.

The Committee's policy decisions are based on a comprehensive consideration of a wide variety of factors that affect the growth and stability of our economy. The Committee's ultimate focus of concern is on the real economy—on gross national product, on prices, on employment, on production, and on the international position of the dollar. But in giving instructions for the conduct of open market operations, the Committee has to translate its policy aims—which are essentially long term in character—into terms of its proximate responsibilities, that is, into terms of money, credit, reserve availability, and the money market conditions that are likely to be associated with desired changes in the monetary and credit aggregates. As you know, the Committee has been putting greater emphasis since early this year on the monetary aggregates in giving instructions to the Trading Desk. But I see no evidence that the Committee feels it has found a magic formula. Rather, there is an evolving effort to sort out the monetary and credit growth and the associated money market conditions that will foster the broad objectives of the Committee's long-range policies. And, while no two members of the Committee think exactly alike, there does emerge from each meeting a consensus about the aggregates and money market conditions that will get the Committee where it wants to go. This consensus is summarized by Chairman Burns at the conclusion of a very frank go-around of Committee members, and a formal vote is taken on a directive to the Federal Reserve Bank of New York, which governs operations until the Committee meets again.

The directive is necessarily couched in relatively broad terms, usually focusing on a desired rate of growth of the monetary aggregates but with ample attention to the general state of the money market. For example, the operating paragraph of the directive adopted at the May 1970 meeting—the last to be published—gave these instructions to the Desk:

> in view of current market uncertainties and liquidity strains, open market operations until the next meeting of the Committee shall be conducted with a view to moderating pressures on financial markets, while, to the extent compatible therewith, maintaining bank reserves and money market conditions consistent with the Committee's longer run objectives of moderate growth in money and bank credit.

The specific language of this directive is typically modified from meeting to meeting—sometimes a little, sometimes a lot—to reflect the shifting emphases of Committee concern.

I should emphasize immediately that the Manager of the System Open Market Account has much more than the directive to serve as a guide in the conduct of operations between Committee meetings. Before each meeting of the Committee, the staff has circulated a detailed analysis of alternative growth paths in the monetary and credit aggregates, their relation to the real economy, and the money market conditions and interest rates likely to be associated with them. As you can imagine, making this set of projections and targets is not precisely an exact science, and the staff analysis is subjected to a critical review by the Committee members. For the Manager, the full discussion of the Committee as it reaches a policy decision adds a great deal of flesh to the bare bones of the directive.

We have now reached the point where the Committee has issued a directive to the Federal Reserve Bank of New York. The task of the Trading Desk then becomes the conversion of that policy decision into concrete decisions to buy or sell a certain amount of securities in the open market. Basically our job at the Desk in carrying out the Committee's directive involves a comprehensive analysis of (1) very detailed statistical reports of bank reserve positions and monetary and credit aggregates, (2) projections of the aggregates and of factors affecting bank reserves, and (3) observations of what is happening from minute to minute and hour to hour in the money and securities markets. A blow-by-blow description of a day at the Trading Desk is not really possible in a talk, but let me try to do the best I can.

Our trading room looks very much like the trading room of any major securities house or large bank. There is the usual quote board reflecting up-to-the-minute price and yield quotations on Government and agency securities. In front of each trader is a telephone console with direct wires to the dealers in Government securities, to the Federal funds brokers, and to the money desks of a number of large banks. But the Fed's Trading Desk differs markedly from the others. Our job is not to trade for a profit, but to control the supply of bank reserves in line with the Open Market Committee's broad policy objectives. In addition, we serve as the eyes and the ears on the market for the whole Federal Reserve System and the Treasury. Both the Fed and the Treasury recognize that the market can tell us a great deal about the current decisions and expectations of borrowers and investors, and this information is a significant supplement to what we can learn from the many statistical series that we receive.

Thus we keep in close touch with the market through daily meetings with individual Government securities dealers and by constant telephone communication during the day. Our traders spend the lion's share of their time on this activity, putting together and analyzing what they hear from individual dealers, banks, and brokers and developing a feel for current market trends.

While this activity is going on each morning, there has been a steady flow of statistical information coming into the Desk from the New York money market banks, from Government securities dealers, and by wire from the other Reserve Banks. A little after 9:30 every morning we receive a summary report of the reserve position of the banking system as of the close of business the night before. This we check immediately against what our projections had indicated the reserve position to be the day before. A few minutes later our computer has spewed out a detailed breakdown of the money position of the New York money market banks, and by 10:30 we have a similar report from the other Reserve Banks on the position of thirty-eight other major banks scattered throughout the country. These are followed by reports from the dealers in Government securities on their positions and the volume of trading on the previous day. By this time, too, we have checked with our Foreign Department to find out what has been going on in the European foreign exchange markets, and to get a preliminary view of likely buy or sell orders that will be forthcoming from foreign central banks.

At 10:10 a.m. we check with the Treasury our respective estimates of what will happen to the Treasury balances held in the Reserve Banks, and the Treasury decides whether or not to make a call or adjust some previous call on its Tax and Loan Accounts at the major commercial banks. As you know, the flow of funds through the Treasury account is huge, particularly around tax and financing dates, and large shifts in Treasury balances held at the Fed could disrupt the reserve position of commercial banks. Thus the Treasury, very properly, tries to keep a roughly constant balance with the Reserve Banks so as not to be a factor affecting bank reserves and the money market.

As the morning progresses—by 10:40 if we're lucky —we get a detailed projection from our Research Department on the reserve outlook. The projection covers daily estimates of float, currency circulation, vault cash held in banks, gold and foreign operations, the Treasury balance, and required reserves, together with weekly reserve averages, for the next four weeks. And by 11 o'clock we should have similar estimates from the Federal Reserve Board staff in Washington. Like all projections, these are subject to a wide margin of errors. But new projections are made every day, permitting constant updating and continual cross-checking of assumptions by our technicians in New York and Washington.

In recent years, considerable effort within the Federal Reserve System has gone into the development of projections of the monetary and credit aggregates that are of particular interest to the Committee. Thus, each week we have new projections—usually reaching out three months ahead—that serve as a supplement to the historical record in judging whether money supply and bank credit are within the target ranges desired by the Committee. These projections are far from perfect, and constant efforts are being made to improve them and, indeed, the statistical series themselves. Our use of the projections and of the money and credit statistics is quite cautious, because experience indicates that both money supply and bank credit can behave very erratically, particularly in the short run. I would warn you, therefore, not to over-interpret week-to-week, or even month-to-month, changes in the money supply. The Committee's attention, after all, is focused on longer run growth rates, not on short-run movements that may turn out to be without real meaning.

By 11 o'clock we are already beginning to develop a pretty good idea of how money market conditions are going to shape up for the day. By this time we have already had several conversations with the Board and Treasury staffs bringing them up to date on early developments and have sent off a brief wire report to the Reserve Banks and Board.

Since the Federal Reserve is a regional central bank, we have had to develop an elaborate network of communications to assure that all the Reserve Banks and the Board of Governors are kept up to date on current open market operations and their background. This involves a number of written reports as well as wire and telephone communication. But perhaps the focal point of that network is the conference call we place each morning at about 11:10 to the Board, where certain staff members and perhaps one or more Governors may be gathered, and to a Reserve Bank where a president currently serving on the Open Market Committee and his staff advisers are gathered. During the course of the call, one of the officers on the Trading Desk gives a fairly detailed rundown of current and prospective developments affecting bank reserves and the money and securities markets. The Reserve Bank president may comment on how the situation may look from his vantage point. The Board staff may comment on their latest information concerning the money supply or bank credit developments or provide other pertinent information, and we have an opportunity to check out the staff projections of bank reserves. We then present our tentative plan of action, if any, for the day and receive any comments that the other call participants may care to make. Immediately following the call, a detailed summary is prepared by the Board staff, placed before each Governor, and dispatched by wire to each Reserve Bank president. Thus each member of the Open Market Committee has before him by about 1 p.m. a review of the current situation and our plan for open market operations for the day.

Obviously, before we go into the call we have had to make up our minds whether System operations are called for to implement open market policy. Are we going to buy or sell and how much?

Let me summarize briefly the elements that go into that decision:

(1) We have a directive from the Committee setting forth policy objectives and the benefit of the Committee's discussion as it reached its decision.

(2) We have staff estimates and projections of money supply and bank credit measured against the background of seasonal patterns and earlier projections. These we can check against the longer range growth rates desired by the Committee.

(3) We have knowledge of what has happened in the recent past insofar as the various elements of money market conditions are concerned. I can't stress enough that daily operations are not conducted in a vacuum but are part of a continuing process. Each day we build on past experience.

(4) We have projections from the staff about the behavior of market factors (float and foreign operations) —whether they are likely to be neutral, or to supply or absorb reserves.

(5) We have taken careful readings of the market as it has developed and by 11 a.m. have begun to develop a feel of what it is saying about the availability of money and about interest rates.

Suppose our staff estimates indicate that market factors —perhaps a sharp rise in float and a decline in currency circulation—are going to supply $300 million in reserves in the current statement week. Suppose further that the estimates of money supply and bank credit appear about in line with the Committee's desires. In addition, as we check the market, we learn from the Federal funds brokers that there is a large supply of Federal funds from New York and from the West Coast and only a small demand from other banks, and that the Federal funds rate is tending to move lower. This reserve excess appeared to be confirmed by the wire reports giving bank positions for the night before. Moreover, Government securities dealers are having no difficulty in finding funds from corporations and banks throughout the country to finance their positions, and this situation is tending to push Treasury bill rates lower.

Such a situation would clearly be inconsistent with a Committee directive for no change in policy, assuming that was what we had, and our course of action would be clear. The decision would be to sell Treasury bills in the market to absorb reserves or perhaps, if projections indicated that the reserve excess would be only short-lived, to make matched sale-purchase agreements.

I should pause to say that the situation, unfortunately, is not always quite so clear as the one outlined. Expectations are of great importance in shaping market decisions, and we always have to take them into account. At times, too, the projections indicate that there should be an ample availability of reserves, while the market is giving off signals of acute distress. In such cases the projections often have to be set aside, while the tone and feel of the market take predominance. The market, in fact, often enables us to correct erroneous reserve projections, but it too is not infallible. Sometimes banks are very conservative in managing their reserve positions and tend early in the statement week to bid for more Federal funds than they really need to balance out their reserve positions. This, of course, makes for a tighter Federal funds market than the underlying reserve positions would really warrant. On some occasions, too, the reserve and monetary aggregate projections in New York and Washington are far apart. And, on occasion, computers will break down and deprive us of vitally needed information. But the market always functions, and we can get guidance there.

In any case a decision has to be made, and a decision to do nothing is as important and difficult as a decision to buy or sell. But the point I want to emphasize is that any decision is always based on a combination of past experience, statistical reports and projections, and current market developments (which may at times be more affected by expectations than statistics), together with the directive that the Committee has set out.

The actual purchase of securities is far less difficult than reaching a decision as to what to do, but it requires a fair amount of skill in timing and technique. In the situation outlined above our decision might well have been to sell about $300 million of Treasury bills. Our procedure would be to instruct our traders to ask the twenty-odd Government securities dealers with whom we do business to bid us for Treasury bills of any maturity. Each trader would immediately get on the phone and call two or three dealers, as simultaneously as possible, and in a matter of minutes would get back firm bids for stated amounts and at stated prices. Perhaps from all the dealers we might get bids for $600 million or more of Treasury bills. Our job would then be to select those that were bid us at the best price relative to the whole market and those that fit in best with our existing bill portfolio. The whole operation would take us no more than about one-half hour—a very interesting commentary on the ability of our Government securities market to handle large transactions with great facility.

We are, of course, fortunate to have a vigorous market in Government securities that is able to handle large transactions efficiently. The existence of such a market affords the Federal Reserve great flexibility in the conduct of open market operations to influence bank reserves, money, and credit. The System—and the Treasury as a major issuer of debt—both have a vital interest in the maintenance of a strong, competitive free market, and I would like to pay tribute to all those who help keep the market that way.

As we at the Desk operate in the market day by day, we can never be sure at any given moment whether our operations have been in the precisely right amount or whether we are only, hopefully, moving in the right direction. All we can be sure of is that tomorrow will be another day, with a new set of data and projections and new decisions to be made. But we hope that by plugging away we can, through successive approximations, achieve the goals that the Federal Reserve has set for itself.

Publications of the Federal Reserve Bank of New York

The following is a selected list of this Bank's publications, available from our Public Information Department. Except for periodicals, mailing lists are not maintained for these publications. Delivery takes two to four weeks. Orders must be prepaid if charges apply; the first 100 copies of our "general" publications are free. Additional copies for classroom use or training are free to schools, including their bookstores, and commercial banks in the United States. (Classroom and training copies will be sent only to school and commercial bank addresses.) Others are charged for copies in excess of 100. Single copies of our "special" publications are free to teachers, commercial bankers, and libraries (public, school, and other nonprofit institutions) in the United States and to domestic and foreign government officials, central bankers, and newsmen. Additional copies for classroom use or training are available to these groups (including school bookstores) at our educational price. (Free and educational-price copies will be sent only to school, business, or government addresses.) Others are charged the full price for each copy.

GENERAL PUBLICATIONS

MONEY: MASTER OR SERVANT? (1966) by Thomas O. Waage. 48 pages. A comprehensive discussion of the roles of money, commercial banks, and the Federal Reserve in our economy. Explains what money is and how it works in a dynamic economy. (15 cents each in excess of 100 copies)

OPEN MARKET OPERATIONS (1969) by Paul Meek. 48 pages. A basic explanation of how the Federal Reserve uses purchases and sales of Government securities to influence the cost and availability of money and credit. Recent monetary actions are discussed. (11 cents each in excess of 100 copies)

PERSPECTIVE. Published each January. 9 pages. A brief, nontechnical review of the economy's performance and the economic outlook. Sent to all *Monthly Review* subscribers. (6 cents each in excess of 100 copies)

SPECIAL PUBLICATIONS

ESSAYS IN DOMESTIC AND INTERNATIONAL FINANCE (1969) 86 pages. A collection of nine articles dealing with a few important past episodes in United States central banking, several facets of the relationship between financial variables and business activity, and various aspects of domestic and international financial markets. (70 cents per copy; educational price: 35 cents)

ESSAYS IN MONEY AND CREDIT (1964) 76 pages. A collection of eleven articles on selected subjects in banking, the money market, and technical problems affecting monetary policy. (40 cents per copy; educational price: 20 cents)

THE VELOCITY OF MONEY (1969) by George Garvy and Martin R. Blyn. 116 pages. A thorough discussion of the demand for money and the measurement of, influences on, and the implications of changes in the velocity of money. ($1.50 per copy; educational price: 75 cents)

CENTRAL BANK COOPERATION: 1924-31 (1967) by Stephen V. O. Clarke. 234 pages. A documented discussion of the efforts of American, British, French, and German central bankers to reestablish and maintain international financial stability between 1924 and 1931.

MONEY, BANKING, AND CREDIT IN EASTERN EUROPE (1966) by George Garvy. 167 pages. A review of the characteristics, operations, and recent changes in the monetary systems of seven communist countries of Eastern Europe and the steps taken toward greater reliance on financial incentives.