FEDERAL RESERVE BANK OF NEW YORK

ANNUAL REPORT 1971

FEDERAL RESERVE BANK OF NEW YORK

March 3, 1972

To the Member Banks in the
Second Federal Reserve District:

I am pleased to present our fifty-seventh Annual Report, reviewing the major economic and financial developments of 1971.

Last year witnessed a very modest recovery from the mild recession of 1969-70. Yet, despite a highly stimulative fiscal policy and an expansive monetary policy, no progress was made in reducing the rate of unemployment. During the first eight months of the year, moreover, wages and prices continued to rise rapidly, and the nation's balance of international payments deteriorated precipitously.

The new economic policies announced by President Nixon on August 15 represented a coordinated attack on the simultaneous problems of unemployment, inflation, and disequilibrium in the balance of payments. In the months that followed, the growth of employment and production accelerated. Inflation was practically halted during the ninety-day wage-price freeze, although there was an inevitable run-up of some wages and prices after the freeze ended. Prospects for eventual restoration of equilibrium in the balance of payments were enhanced, but by no means assured, by the realignment of international exchange rates negotiated in Washington on December 18.

The challenge of 1972 is to build upon the efforts to restore economic strength and stability that were begun in 1971. Although the "Phase Two" incomes policy meets an urgent need today, there is reason to hope that wage and price controls may eventually be abolished. To that end, we must guard against overly expansive fiscal or monetary policies, which might prolong our reliance upon direct controls while, at the same time, undermining their ultimate success. The basic goal of economic policies must continue to be the achievement of satisfactory use of resources while restoring price stability and balance-of-payments equilibrium.

Alfred Hayes

ALFRED HAYES
President

Federal Reserve Bank

of New York

FIFTY-SEVENTH
ANNUAL REPORT

For the Year

Ended

December 31, 1971

Second Federal Reserve District

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1971: A Pivotal Year

Both domestically and internationally, the course of United States economic history in 1971 turned dramatically on President Nixon's August 15 announcement of a "New Economic Policy". The unsatisfactory performance of the domestic economy and the rapidly deteriorating position of the dollar over the first seven months of the year provided the impetus for this policy change. The remainder of the year saw the development of new approaches along the lines opened up by the President to the many problems besetting the economy.

While the underlying course of the domestic economy in the months preceding the President's announcement was partly obscured by the effects of past and prospective labor disputes, it did appear to be recovering from the 1970 recession. The pace of the advance was unacceptably slow, however—too slow to make any dent in the margin of idle men and machines. As of the third quarter, most of the broader measures of economic activity indicated significantly slower gains than had occurred in the comparable stages of any of the other postwar recoveries. The recovery in industrial production was especially weak. Indeed it appeared to have halted altogether around the time of the President's August announcement, and renewed doubts had begun to be voiced about the prospects for a significant improvement in the economic situation.

In a purely arithmetic sense, part of the relative weakness of the business expansion could be attributed to the failure of inventory spending to register the sort of sharp turnaround that had characterized earlier postwar recoveries. The more basic causes of weakness in the economy, however, seemed elusive, especially in view of the stimulative monetary and fiscal policies being pursued. One contributing factor was undoubtedly a pervasive uneasiness, reflecting widely held fears that inflation was not abating and would remain a serious problem for the foreseeable future. Quite possibly any really vigorous and sustained revival of economic growth would have had to await a calming of these fears.

By mid-1971, inflation had become closely identified in the mind of the American public with general economic debility, and understandably so. The inflation of the late 1960's and 1970-71 had been accompanied by shrinking profit margins, by a deteriorating competitive position in world markets, by severe capital market strains associated with adjustments to rising inflationary expectations, and by disillusionment with the stock market as an inflationary hedge, as well as by a decline in the real purchasing power of paychecks and pensions for many. More generally, there were widespread doubts that any resumption of vigorous and sustained expansion was possible as long as national policy had to remain constrained by the continued presence of rapidly rising prices.

In fact, the progress achieved against inflation as of August 15, 1971 was quite modest. To be sure, there had been a distinct slowing in the rate of increase in the overall consumer price index and in the gross national product deflator. A part of this improvement, however, reflected technical factors and the underlying situation was clearly a good deal less satisfactory. Cost pressures remained intense. There had been little sign of moderation in the wage contracts signed in the first half of 1971. Moreover, productivity gains to help offset the cost effects of wage increases had proved disappointingly small, largely as a result of the correspondingly slow pace of the economic advance.

While it would be incorrect to say that there had been no progress whatsoever on prices by mid-1971, there were probably few if any who could have guessed in late 1969 that inflation would remain so stubborn after a year and a half of decidedly slack demand and with nearly a year of unemployment in excess of 5.5 percent. That events took such a course remains something of a puzzle. One possible explanation is that unemployment in 1970 and 1971 was weighted more heavily toward women and young people than in other postwar recessions and may therefore have exerted relatively less downward pressure on wage costs. Another possibility is that there had been a subtle shift in social and economic forces that made collective bargaining and price setting less sensitive to current demand conditions. A third possibility is simply that inflationary expectations had become so deeply embedded in all price and wage decisions that anticipations of future price rises had come to dominate current supply and demand conditions in the market and in this way had become self-fulfilling.

Whatever the cause, the state of the domestic economy as of August was far from satisfactory. To be sure, Americans had experienced substantially worse unemployment and more rapid inflation on various occasions in the past. Nevertheless, the level of public expectations about the quality of the economy's performance had risen steadily in the postwar period, and tolerance for less than satisfactory results had declined correspondingly. Given the particularly unpleasant combination of continued unemployment and inflation prevailing in mid-1971, there was a widespread willingness to try new policy approaches. Consequently, when the President announced on August 15 the first program of wage and price controls ever to be invoked in the United States under essentially peacetime conditions, public reaction was almost universally favorable.

If the background of the domestic portion of the President's new policy package was an unacceptably slow improvement during early 1971, the background of its international component was a precipitate descent into crisis. Despite a record United States official settlements deficit, the foreign exchange markets had been relatively calm in 1970. Early in 1971, however, the position of the dollar began to weaken markedly. With domestic interest rates falling substantially further in the opening months of the year, rate differentials relative to European financial markets widened and movements of short- and long-term capital abroad accelerated sharply. Moreover, despite the slack state of the domestic economy, our trade surplus was quite small during the first quarter and in April gave way to the first of a long string of deficits. While special factors were involved, the deterioration in the trade accounts was widespread among commodity groups and seemed to reflect a further weakening in the underlying competitive position of the United States. As early as March, speculative movements of funds began to add to pressures on the dollar. Buying pressure in the exchange markets was focused particularly on the German mark, which had been strengthened by a continuing large trade surplus as well as by relatively high interest rates and large borrowings from abroad, partly reflecting an extremely restrictive credit policy.

When movements of funds into Germany reached crisis proportions in early May, the German authorities ended official support of the dollar, allowing the mark to float upward. Immediately thereafter, a similar move was taken by the Dutch, while the Swiss franc and Austrian schilling were revalued. These actions eased the pressures in the exchange markets, but the atmosphere remained unsettled because of fears that other countries might follow suit. The markets became more uneasy as the deterioration in the United States trade account and the continued extraordinary weakness of its overall payments position became known. Pressure on the dollar reemerged in July, and a full-fledged flight from the dollar developed in early August, especially following an August 6 Congressional subcommittee report which argued that the dollar was overvalued and called for a general exchange rate realignment. The official settlements deficit in August reached gigantic proportions, and United States monetary reserves dropped by $1.1 billion in that month. Over the first eight months of the year as a whole, such reserves fell by about $3 billion. These losses would have been even greater but for drawings by the Federal Reserve on its swap lines.

Responding to these various developments, the President's August 15 package included suspension of the dollar's convertibility into gold and other reserve assets and a temporary 10 percent surcharge on dutiable imports. These actions resulted in the effective suspension of the system of essentially fixed exchange rates established under the Bretton Woods agreement of 1944. Although many foreign central banks continued to intervene selectively in the exchange markets, most of the world's major currencies were floating by the end of August at significant premiums against the dollar relative to their official parities.

The fluid situation prevailing in the exchange markets after August opened the way for a later reconstruction of the international financial system on a sounder long-term basis, but it was accompanied in the shorter term by some risks. These included the possibility that a protracted period of currency floats might be accompanied by a spreading network of exchange controls and trade barriers. Indeed, some developments along these lines began to appear almost immediately. Given signs that the unusual uncertainties prevailing in the exchange markets were themselves inhibiting international payments, there was some fairly widespread anxiety that world trade and payments might be seriously damaged before an interim agreement on relative exchange rates could be worked out. These fears, which accompanied signs of a rather general slowing of business expansion in Europe and Japan, became for a time a dampening influence on the business atmosphere.

In some respects, the reaction of the domestic economy to the President's overall package of policies was immediate and vigorous. Both stock and bond prices rose sharply in the days following his August 15 announcement, reflecting an upsurge of optimism about the prospects for reducing inflation and for stepping up the rate of economic expansion. Although stock prices staged a sharp, temporary retreat in October and November, both stock and bond markets ended the year well above pre-August 15 levels. Short-term interest rates, moreover, declined rather steadily in the closing months of 1971. At the same time, the wage-price freeze met with widespread compliance and produced a marked improvement in the overall performance of the major price indexes during its three-month existence.

The immediate impact of the President's program on the pace of domestic expansion was also favorable, though of relatively modest dimensions. Domestic car sales rose markedly in response to various elements of the new program. Overall retail sales also picked up, and business and consumer confidence seemed to react favorably to the President's announcement. To be sure, the initial enthusiasm was subsequently tempered by uncertainties surrounding the post-freeze "Phase Two" of the wage and price control program when the new Pay Board and Price Commission began operations in November. The unresolved international trade and monetary issues were also sources of concern. On balance, however, the overall pace of economic advance quickened significantly late in the year.

Progress was also registered in the international area toward the year-end with the announcement on December 18 of an agreement establishing new exchange rate alignments amounting to a significant effective devaluation of the dollar *vis-à-vis* other major currencies. With the establishment of the new rates, the United States agreed (subject to Congressional approval) to raise the dollar price of gold by 8.57 percent as soon as there was evidence of progress in reducing trade barriers. Coupled with the new exchange rate agreement, the President also announced the removal of the temporary import surcharge.

Relative to the dramatic moves on incomes policy and in the international field, monetary policy played a somewhat unobtrusive role in 1971. The basic thrust of open market operations during the year was aimed at achieving growth in the monetary and credit aggregates large enough to support the fragile recovery but not so large as to undermine the battle against inflation. At the same time, the Federal Open Market Committee sought to accommodate downward pressures on long-term interest rates when possible and to minimize upward pressures when long-term rates were rising.

Over the year as a whole, the narrowly defined money supply (M_1) in fact grew at a moderate 6.2 percent rate, a bit faster than in 1970. Some of the broader monetary and bank credit aggregates rose substantially more rapidly than this in 1971, largely as a result of reflows into bank time and savings accounts following declines in open market interest rates. While the monetary and credit aggregates performed in a broadly acceptable way over the year as a whole, there was considerable fluctuation in monetary growth rates within the year. Thus the growth rate of M_1 accelerated markedly in the first quarter to higher rates than would have been acceptable in the long run. This development did not seem particularly disturbing, however, given the shortfall that had developed in the final quarter of 1970. Indeed, some fluctuations were perhaps to be expected in view of the corresponding short-term perturbations in the economy itself associated with the auto strike and its aftermath.

When the growth of M_1 continued unduly strong in April and in succeeding months, however, money market conditions were tightened progressively to bring monetary growth down to more moderate rates. Despite these moves, the growth of M_1 in the April-July period was clearly more rapid than would have been sustainable over a longer period, given the need to avoid renewed inflationary pressures. Still more vigorous restraint during this period, however, would seem to have risked putting upward pressure on long-term interest rates. Such rates had in fact risen rather sharply in April and May and remained around their new higher levels until the President's August 15 announcement. This upward movement of long-term rates, partly reflecting the continued strength of inflationary expectations, was by no means welcome in view of the weak business recovery.

In August, the rate of monetary expansion dropped sharply, in part the result of a sudden large outflow of funds to foreign financial centers. The money supply actually fell in September, apparently reflecting in some degree an unwinding, following the President's August 15 address, of precautionary balances that had been built up earlier in the year. Interest rates began to decline as inflationary expectations abated, and day-to-day money market conditions were also eased—at first modestly and then, after four months of virtually no growth in M_1, more aggressively toward the year-end.

As 1972 began, both the domestic and international economies were setting sail on seas that were to some extent uncharted. The uncertainties natural to such a circumstance were by no means absent, but there was also a good deal of sober optimism that progress would be made. In the domestic area, the short-term task was to implement the President's Phase Two policies with sufficient vigor to break inflationary expectations while simultaneously encouraging a substantial reduction of unemployment within a reasonable period. Success in this undertaking would put a real burden on the various bodies appointed by the President to make the hard decisions needed to implement his wage and price control policy. It also asked of the public at large a high degree of voluntary compliance with these decisions.

The longer run requirements of successful domestic policy seemed equally demanding. The experience of the past few years has made it clear that, once inflation takes hold, it is extremely difficult if not impossible to remove it solely by engineering brief and relatively painless reductions in aggregate demand. Similarly, experience suggests that an entrenched inflation can come to threaten an economy's potential for vigorous real growth in many ways, by generating structural maladjustments in financial and real markets, by weakening international competitiveness, and by inhibiting the ability of policy makers to promote vigorous growth. At the same time, many have come increasingly to the view in recent years that the ability of the economy to "buy" low levels of unemployment by tolerating inflation may actually be quite limited, especially in the longer run as rising prices come increasingly to be anticipated. All these considerations bring home the necessity of avoiding prolonged episodes of excess demand, since their ultimate inflationary consequences are so difficult and costly to eradicate. They also provide strong impetus to make such structural changes as may help to render the economy less prone to inflation.

In the international area, the December 18 exchange rate agreement can set the stage for restoration of world payments equilibrium. It may also help promote an evolution toward a more resilient world monetary system. The devaluation of the dollar relative to other currencies should encourage a substantial improvement in the United States foreign trade account and in its overall balance of payments. The prospect of a more equitable sharing of defense burdens sought by the Administration should also help to improve our balance-of-payments outlook. In the interim, the widening of official exchange rate margins included in the December 18 agreement to plus or minus 2¼ percent of the new "central" rates should contribute to greater flexibility in the international financial system. Similarly, removal of the United States temporary import surcharge, coupled with progress in negotiating reductions in trade barriers, should help check the dangerous swing toward protectionism that threatened to develop in 1971.

If further progress in reducing trade barriers can be realized, and if the international financial mechanism can be strengthened, international flows of goods and capital can continue to make a substantial contribution to world prosperity in the years ahead. In the meanwhile, it remains clear that one of the most important determinants of our own contribution to international financial stability, as well as to vigorous growth at home, will be our ability to subdue the inflationary forces that have afflicted us for so many years.

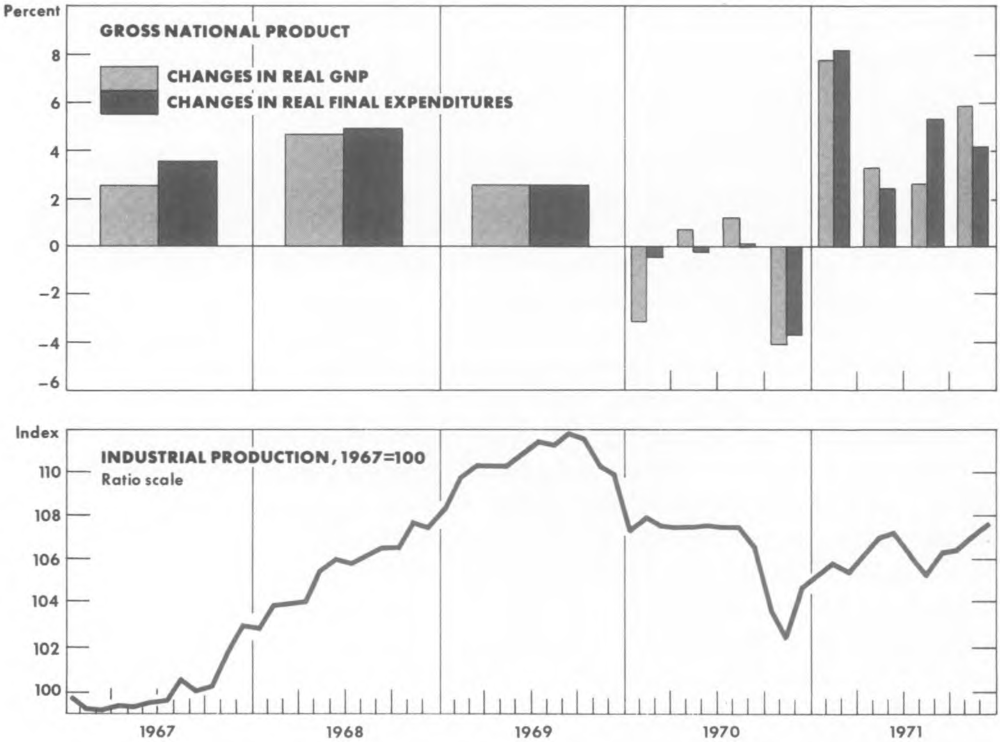
THE UNITED STATES ECONOMY IN 1971

Business Conditions: A Disappointing Recovery Leads to a New Economic Policy

SLOW EXPANSION AND STUBBORN INFLATION. The performance of the United States economy during the first seven months of 1971 was disappointing, as the legacy of the comparatively mild 1969-70 recession and the severe inflation of the post-1965 period dominated virtually all aspects of economic activity. Although the economy began to expand from the business-cycle trough, which the National Bureau of Economic Research has tentatively placed in November 1970, the underlying pace of the recovery was frustratingly slow despite substantial stimulation from monetary and fiscal policies. Meanwhile, the rate of inflation—spurred by the continued rapid increases in labor and nonlabor costs—was little changed from that of 1970, even though overall excess demand had long since been eliminated. Indeed, the coexistence of rapid inflation and high unemployment undermined public confidence that these problems could or would be resolved. In turn, this deterioration tended to be self-fulfilling. While expectations of further price increases fueled inflation, the reluctance of consumers and businesses to increase spending retarded the recovery. Mounting pressures in the international financial markets, the sharp decline in equity prices during the spring and early summer months, and the occurrence or threats of work stoppages further clouded the economic outlook.

In the midst of these difficulties, the overall pace of the economic recovery during the first half of 1971 was modest, compared with past cyclical experience. During the first two quarters, real gross national product—that is, GNP adjusted for price increases—rose at an average annual rate of about 5½ percent (see Chart 1), whereas the gains at the comparable stage of recovery from the three previous recessions had averaged 10 percent. The contrast is even more striking than these figures suggest, inasmuch as the advance in real GNP in the first half of 1971 was substantially boosted by activity related to the aftermath or anticipation of major strikes. The weakness of the industrial sector's recovery was especially notable. By August, the Federal Reserve Board's index of industrial production was a mere 2.6 percent above its November 1970 reading. This was only about

Chart 1. THE LEVEL OF ECONOMIC ACTIVITY: Real GNP in the first half of 1971 was boosted by the aftermath and anticipation of work stoppages, but the underlying recovery was decidedly weak over most of the year. During the latter part of the year, the pace of the expansion quickened somewhat. Output of the industrial sector, after moving unevenly over much of 1971, also strengthened during the closing months of the year but still remained well below its previous peak.



All data are seasonally adjusted. GNP growth rates for 1967 through 1969 represent increases in annual averages, while the quarterly changes for 1970 and 1971 are expressed at annual rates.

one fifth the average rise recorded over the first nine months of the three previous recoveries and left the index 6 percent below the peak reached in the fall of 1969.

In a narrow sense, a large part of this sluggishness can be traced to the failure of inventory spending to show the strength that has usually accompanied the early stages of an economic expansion. Inventory accumulation during the first half of 1971 was boosted substantially by the recovery from the automobile strike and the anticipation of a strike in the steel industry. Even so, the annual rate of spending on inventories—as measured in the GNP accounts—amounted to a very modest $3.8 billion, actually lower than in the preceding half year. This was in sharp contrast to previous post-Korean war recoveries which had been associated with, indeed led by, rapid growth of inventories.

The weakness of inventory spending reflected, in part, the significant and protracted cutbacks in the defense and aerospace industries. More important, however, was the fact that the downward adjustment in inventory spending during the 1969-70 recession had been small by comparison with past corrections. Thus, as 1971 opened, the level of inventories in some sectors was still rather high relative to sales. Since the expansion of business sales was moderate, a better alignment between stocks and sales was attained only gradually. Large stockpiles were held by steel users but, by midyear, most other industries were in a more balanced position. Businessmen, however, still hesitated to step up their investment in inventories without clear indications of an improvement in the economic climate and an acceleration in the growth of final sales.

While the modest pace of inventory spending was a major force accounting for the slow recovery in economic activity, total final spending—GNP less inventory accumulation—rose at a fairly rapid rate during the first half of the year. Much of this increase reflected catch-up activity during the first quarter in the wake of the automobile strike of late 1970, but the underlying rise in final expenditures in the first half of 1971 represented an improvement over late 1969 and 1970 as a whole. Nevertheless, these increases were neither strong enough nor pervasive enough to yield the robust advances in overall economic activity usually characterizing the early stages of an economic expansion.

One important moderating influence on the rise in final expenditures was the restrained behavior of consumer spending, as witnessed by the very sizable fraction of income that households diverted into personal savings. Over the first half of 1971, the savings rate climbed above 1970's high level and averaged 8.4 percent, about 2 full percentage points above the long-run average. While spendable incomes grew rapidly as a result of rising wages and salaries, reductions of Federal taxes, and the swift climb in Government transfer payments, consumers were taking precautions against the uncertainties arising from inflation and unemployment by maintaining highly liquid financial positions. As a consequence, consumption spending showed few signs of underlying strength.

About half of the large $20 billion gain in first-quarter consumption spending consisted of expenditures on automobiles and largely represented a rebound from the strike-depressed previous quarter. Even including this makeup effect, the pace of new car sales was on the sluggish side. Approximately half of the much smaller second-quarter advance in consumption spending was absorbed by higher prices, so that the growth of real consumption was comparatively modest.

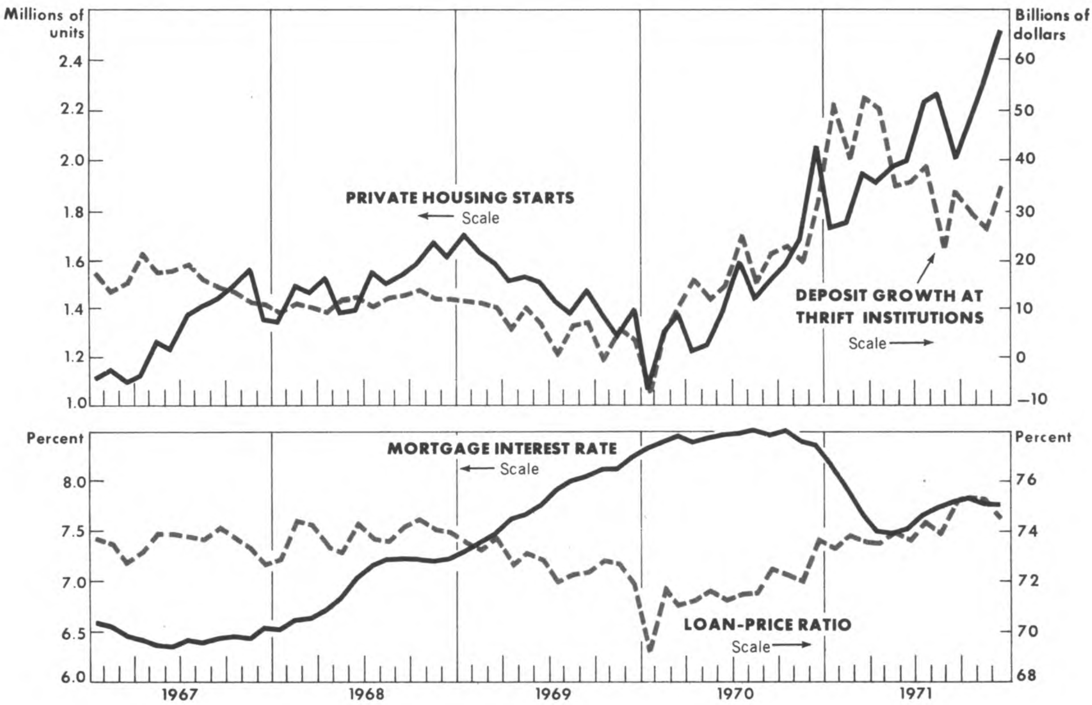
Business outlays for new plant and equipment rose rather rapidly over the first half of 1971, but a portion of this gain represented stepped-up purchases of automobiles and trucks in the aftermath of the General Motors strike. In addition, outlays for new plant and equipment in the public utility sector—where demand pressures remained strong—provided some forward momentum to overall capital spending. In the manufacturing sector, however, there was a sizable retrenchment in purchases of new plant and equipment. This particular weakness partly reflected the depressed level of profits that plagued business in general. In addition, manufacturers' demands for new capital goods were held in check by the very large volume of idle plant capacity.

Residential construction was the one component of GNP that was characterized by unambiguous vigor prior to the mid-August shift in economic policy. Housing starts, which had been severely depressed in early 1970, moved sharply higher later that year and then hit record rates during 1971 (see Chart 2). Reflecting the soaring volume of housing starts, outlays for residential construction leaped ahead to a seasonally adjusted annual rate of $40 billion in the second quarter, $7 billion above the last quarter of 1970. Even after eliminating the effects of higher prices, spending on residential structures grew by 40 percent (annual rate) during the first half of 1971.

The dramatic surge in home building was facilitated by the massive flows of deposits to thrift institutions which began with the easing of monetary policy in 1970. Market interest rates had declined during the early months of 1971, greatly improving the competitive ability of thrift institutions to attract funds. This generated unprecedented inflows of deposits to these institutions, the major suppliers of home mortgage credit. As a consequence, the availability and terms of mortgage credit improved substantially. Indeed, by midyear, mortgage interest rates were about 1 percentage point below their 1970 year-end levels, while downpayment requirements had also been eased (see Chart 2). The rise in housing activity was also aided by very substantial governmental and quasi-governmental support of the housing sector.

As a result of the overall sluggish expansion of economic activity during the first part of the year, there was no reduction in the extensive idleness of economic resources (see Chart 3). While the unemployment rate showed some fluctuations on a month-to-month basis, the 6.1 percent reading in August was the same as the rate prevailing at the end of 1970. This failure of the unemployment rate to move lower was even more striking in light of the subnormal labor force growth during the period. In turn, the retarded growth of the civilian labor force, despite

Chart 2. THE HOUSING SECTOR: Residential construction was an important source of economic strength throughout 1971. It was assisted by the growth of lending at thrift institutions, which experienced unprecedented deposit inflows. At the same time, mortgage interest rates eased and lenders accepted smaller downpayments.



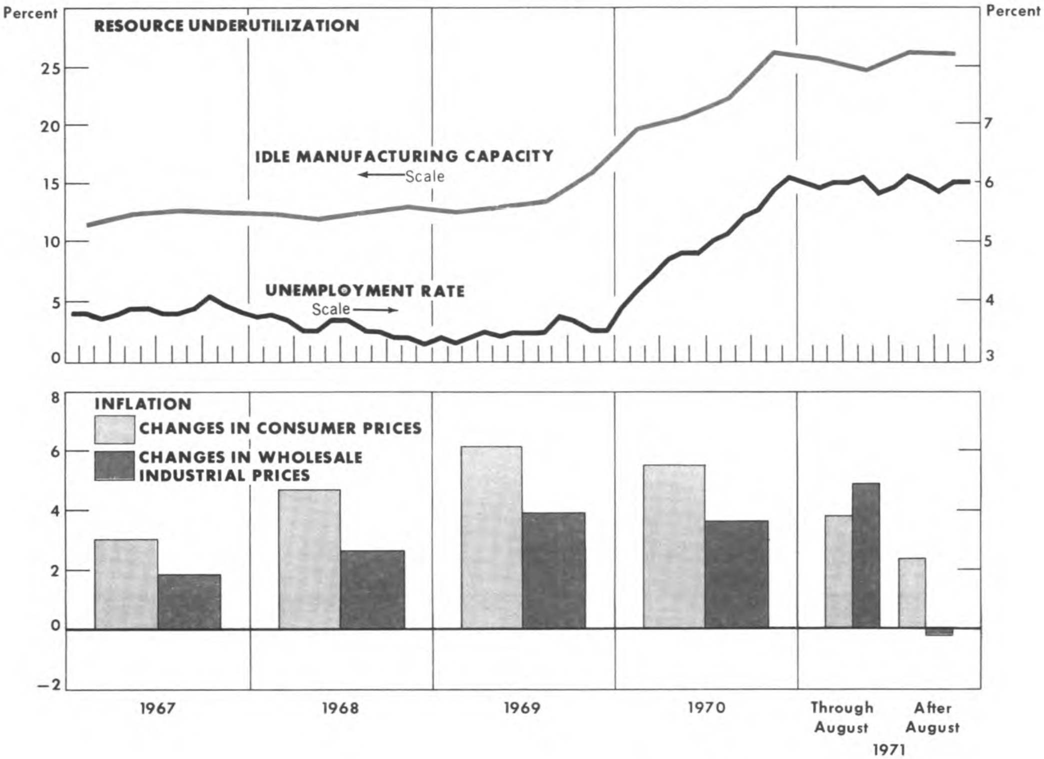
Housing starts and deposit growth are expressed at seasonally adjusted annual rates. The mortgage interest rate is the average effective rate on conventional first mortgage loans for newly built single-family homes charged by all major types of lenders. The loan-price ratio is the average ratio of such mortgage loans to the purchase prices of the homes involved.

the large number of returning veterans, was an indication that the scarcity of jobs had discouraged some workers from actively seeking employment. The large amount of idle plant capacity also attested to the substantial degree of slack in the industrial sector of the economy.

Even in the absence of general excess demand, rising costs exerted considerable upward pressure on prices. Wages and salaries continued to grow rapidly, as expectations of future inflation remained firmly entrenched and as workers endeavored to catch up with past increases in the cost of living. Major collective bargaining agreements negotiated during the first nine months of 1971 called for an average first-year wage boost of 11.8 percent, essentially the same as agreed upon in 1970 as a whole. Moreover, previously negotiated major contracts provided for deferred wage hikes averaging 7.8 percent, well ahead of the 5.8 percent average for 1970. Unlike the marked decelerations experienced during previous business contractions, the very inclusive index of compensation per man-hour in the private economy had risen at a brisk clip of about 7 percent through the 1969-70 recession. It then climbed at approximately the same pace during the first half of 1971. Partially as a result of the slowness of the expansion, productivity gains were modest by comparison with past economic recoveries. Although unit labor cost increases slowed relative to the hectic pace of the previous several years, they advanced at a brisk 3.2 percent annual rate over the first two quarters of 1971. Such cost increases were without precedent in the early stages of post-Korean war economic recoveries.

Largely as a consequence of the sustained rise in costs, the rate of price inflation showed little improvement and continued to distort both domestic and international economic relationships. To be sure, the rise in consumer prices moderated somewhat. Through August 1971 the overall consumer price index rose at a 3.8 percent annual rate, following an increase of 5.5 percent during 1970 (see Chart 3). However, much of this slowing was associated with the sharp drop in interest rates on newly issued home mortgages. Industrial wholesale prices, on the other hand, were clearly accelerating at an alarming pace. Over the eight months ended in August, these prices rose at an annual rate of nearly 5 percent, outstripping 1970's rapid 3.6 percent advance by a wide margin. Some of this speedup in industrial prices resulted from higher costs of lumber and other building materials induced in part by the housing boom. Even aside from this factor, the run-up in industrial prices, particularly in the spring and early summer months, was both steep and widespread.

Chart 3. RESOURCE UNDERUTILIZATION AND INFLATION: There was no reduction in unemployment and idle plant capacity during the sluggish recovery prior to the New Economic Policy. Prices, however, continued to rise rapidly. Even afterward, signs of improved resource utilization remained scarce, but there was a dramatic slowing of inflation.



All data are seasonally adjusted. Price changes are based on index readings in the final month of the preceding period and the final month of the period covered and are expressed at annual rates.

THE NEW EÇONOMIC POLICY: A DRAMATIC SHIFT. It was against this background of slow economic growth, high unemployment, and persistent inflation—complicated by intense international financial pressures—that President Nixon announced on the evening of August 15 a dramatic change in the Administration's economic policy. The major initiatives in the domestic area involved a frontal attack on inflation through wage and price controls and a series of tax proposals designed to speed the economic recovery.

Heeding the increasing calls for some sort of national incomes policy, the President took the drastic step of ordering a ninety-day freeze of most wages and prices. Shortly thereafter, it was indicated that this was to be followed by a comprehensive, but more flexible, system of controls to apply for an indefinite period. As the ninety-day freeze period drew to a close, the structure and specific goals of the Phase Two machinery began to take shape. The newly established Pay Board announced a general standard for annual wage and benefit increases of 5.5 percent. The Price Commission set a goal of limiting average price increases across the economy to a rate of no more than 2.5 percent per year. This guideline was generally interpreted to mean that prices could be raised only to cover cost increases not offset by gains in productivity. The President also had authority to control interest rates, and corporations were subjected to guidelines restricting dividend payments.

The inception of a national incomes policy in the form of wage and price controls constituted a fundamental change in economic policy for the United States. Although there had been earlier programs to control inflation directly, they had been imposed during military conflicts and were designed to cope with inflationary pressures generated by severe excess demands. Except for these extreme situations, previous inflationary episodes in the United States were ultimately checked by the curtailment of excess demand through traditional monetary and fiscal policies. In 1971, however, inflation stubbornly persisted even though the Vietnam conflict was winding down and general excess demand was no longer the driving force behind the inflation. Thus, while the wage-price freeze and Phase Two represented a basic shift in economic policy, the inflationary problem to which they were directed was also without precedent.

In concert with the move to an incomes policy, President Nixon asked the Congress to adopt a series of tax changes designed to stimulate the recovery. When the resultant legislation was signed into law on December 10, 1971, its major provisions included the following: Federal excise taxes on passenger automobiles were eliminated retroactive to August 15, 1971; households' disposable incomes were to be enlarged through a series of personal income tax reductions, most of which would take effect in January 1972; and businesses were granted a tax credit equal to 7 percent of the cost of new producers' durable equipment ordered after April 1, 1971.

In contrast to the wage and price controls, the tax package was essentially an extension of previous policies. Even prior to August 15, indeed as early as

1970, Federal fiscal policy had become stimulative. While Federal purchases of goods and services, as recorded in the GNP accounts, were little changed in the first half of 1971 from the last half of 1970, the impact of the overall Federal budget was clearly expansive. Personal income tax liabilities were reduced in January 1971, and there was a large rise in transfer payments, including a 10 percent increase in social security benefits that was effective in January but paid out in June. At the same time, overall tax receipts from businesses and individuals were held down by the sluggish growth of economic activity. These discretionary and automatic fiscal changes aimed at softening the impact of the recession and hastening the pace of the recovery culminated in massive budget deficits. Although a slight surplus had been estimated originally, the unified budget for the fiscal year that ended June 30, 1971 showed a very large deficit of $23 billion. Even before the end of fiscal 1971, moreover, it became probable that that year's budgetary deficit would be exceeded in fiscal 1972.

TRANSITION TO A NEW ECONOMIC CLIMATE. Economic events in the latter part of 1971 unfolded against the background of the New Economic Policy. Some effects were quick and dramatic, such as the leveling-off of prices during the months of the freeze and the surge in new car sales in the weeks immediately after the President's speech. Other hoped-for responses, e.g., reductions in unemployment and idle plant capacity, had not yet emerged by the end of the year.

The most striking impact of the New Economic Policy was on prices and wages. During the months of the freeze, increases in consumer prices and hourly earnings of private nonfarm production workers slowed markedly and industrial wholesale prices actually declined slightly. Toward the year-end, there was an upward spurt in some of the price and wage indexes which stemmed from the clustering of increases that had been suppressed during the ninety-day moratorium. Taking the period from the start of the freeze to the end of 1971 as a whole, however, the rates of increase in prices and wages were smaller than those experienced for several years.

The pace of the economic recovery also quickened in the latter part of 1971. During the third quarter, a period straddling two different economic climates, the growth of real GNP was held to a small 2.7 percent annual rate by the liquidation of inventories stockpiled in anticipation of a steel strike. By the fourth quarter, however, much of this correction was completed and an acceleration in inventory spending helped push the growth in real GNP to an annual rate of close to 6 percent. This was the largest quarterly advance in more than three years except for the first-quarter rebound from the General Motors strike.

While the underlying rate of final expenditures accelerated during the second half of the year, gains in consumer outlays were of relatively modest proportions despite the surge in sales of new automobiles that followed the President's August 15 message. After the freeze, car sales fell off appreciably, suggesting that at least some of the spurt in sales had represented buyer attempts to avoid higher car prices which did in fact take effect early in Phase Two. Although the savings rate declined over the second half of the year, it remained well above its historical average.

Continued growth in residential construction spending and a stepped-up pace of government purchases of goods and services contributed to the growth in final expenditures during the second half of the year. Federal outlays were expanded by the military pay raise that took effect in mid-November as well as by increased purchases of agricultural products under the price-support activities of the Commodity Credit Corporation. State and local government spending posted a sharp rise in the fourth quarter, partly as a result of a sizable gain in outlays for structures which had been surprisingly sluggish during the previous two quarters despite the record volume of capital market borrowing by state and local governments.

There was also a quickening in the recovery of industrial output in the latter months of the year, but some of this increase represented stepped-up production following threatened and actual labor disputes. At the end of the year, industrial production was still nearly 4 percent below the peak reached more than two years earlier and there had been no reduction in the proportion of idle manufacturing capacity.

Although the unemployment rate continued to hold at about the 6 percent level, there was a slight improvement in labor market conditions. According to the Bureau of Labor Statistics survey of households, the monthly growth of total civilian employment was considerably faster in the latter part of 1971 than earlier in the year. However, this rise was about matched by an acceleration in labor force growth probably induced by the brighter economic outlook. In an overall sense, the improvement was small and uneven. By December, the number of employees on manufacturing payrolls had changed little from the recession trough level of thirteen months earlier, and the economy still had an uncomfortably high degree of resource underutilization.

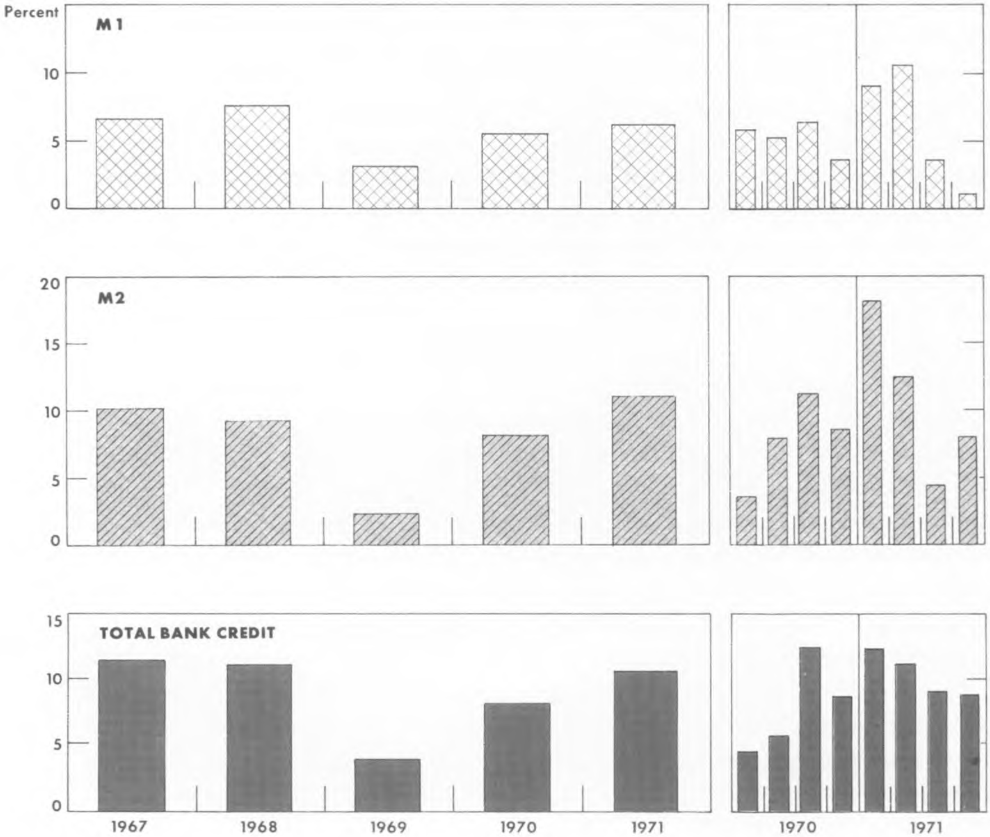
Monetary Policy and Credit Market Developments

The principal objective of monetary policy in 1971 was to achieve growth in the monetary and credit aggregates which would both support the economic recovery and be consistent with an orderly reduction in the rate of inflation. In addition, considerable attention was given to accommodating declines in, or alleviating upward pressure on, long-term interest rates to encourage the economic expansion that was getting under way.

Over the year as a whole, the narrowly defined money supply (M_1)—demand deposits adjusted and currency held by the public—rose 6.2 percent, slightly faster than in 1970. M_1 displayed considerable fluctuation over the year, however, as demands for liquidity varied (see Chart 4). Although a broader measure of the money supply (M_2)—consisting of M_1 plus commercial bank time and savings deposits other than large certificates of deposit (CDs)—rose rapidly in 1971, its growth overstates the increase in the public's liquidity. In part, this rapid expansion reflected shifts by the public of huge amounts of funds from short-term market instruments to commercial bank time deposits in the first quarter. Over the final nine months of the year, the rise in M_2 was roughly equal to the growth rate in 1970. In contrast to the behavior of the money supply measures, the growth in total bank credit was relatively stable from quarter to quarter. For the year as a whole, bank credit, adjusted for loan transactions with affiliates, advanced 10.7 percent, compared with a gain of 8.1 percent in 1970.

MONETARY POLICY SEEKS TO SUPPORT THE RECOVERY AND REDUCE INFLATION. The year opened against the backdrop of a relatively small rise in M_1 during the final quarter of 1970. Partly to compensate for that shortfall from its longer run objective of moderate growth, the Federal Open Market Committee (FOMC) sought stronger growth in M_1 during the first quarter of 1971. Beyond that, monetary policy was also aimed at accommodating further declines in long-term interest rates. To implement this policy, the System supplied reserves generously throughout most of the quarter, relying in part on purchases of Treasury coupon securities. Reflecting the abundance of reserves, the average effective rate on Federal funds plummeted from 4.90 percent in December to 3.72 percent in February—the lowest monthly average in almost seven years—and then remained relatively steady in March. Other short-term interest rates also declined

Chart 4. **CHANGES IN MONETARY AND CREDIT AGGREGATES:** The 6.2 percent advance in M_1 during 1971 was slightly above the 1970 growth rate, although there were substantial variations in the rate of expansion from quarter to quarter. M_2 rose very rapidly during the first quarter, buoyed by the huge amount of funds transferred from market instruments to consumer-type time deposits, but advanced at a more moderate pace over the remainder of the year. Variations in the growth in bank credit, on the other hand, were relatively mild over the year.



M1 = Currency plus adjusted demand deposits held by the public. M2 = M1 plus commercial bank savings and time deposits held by the public less negotiable certificates of deposit issued in denominations of $100, 000 or more. Total bank credit = Commercial bank investments and loans adjusted for transactions with affiliates.

The growth rates of M1 and M2 are computed from daily average levels in the final month of the preceding period and the final month of the period covered. The bank credit growth rates are based on levels for the last Wednesday of the period covered and the last Wednesday of the preceding period. Quarterly figures are expressed at seasonally adjusted annual rates.

sharply during the quarter, and the Federal Reserve discount rate was lowered to 4¾ percent in three ¼ percentage point cuts (see Chart 5).

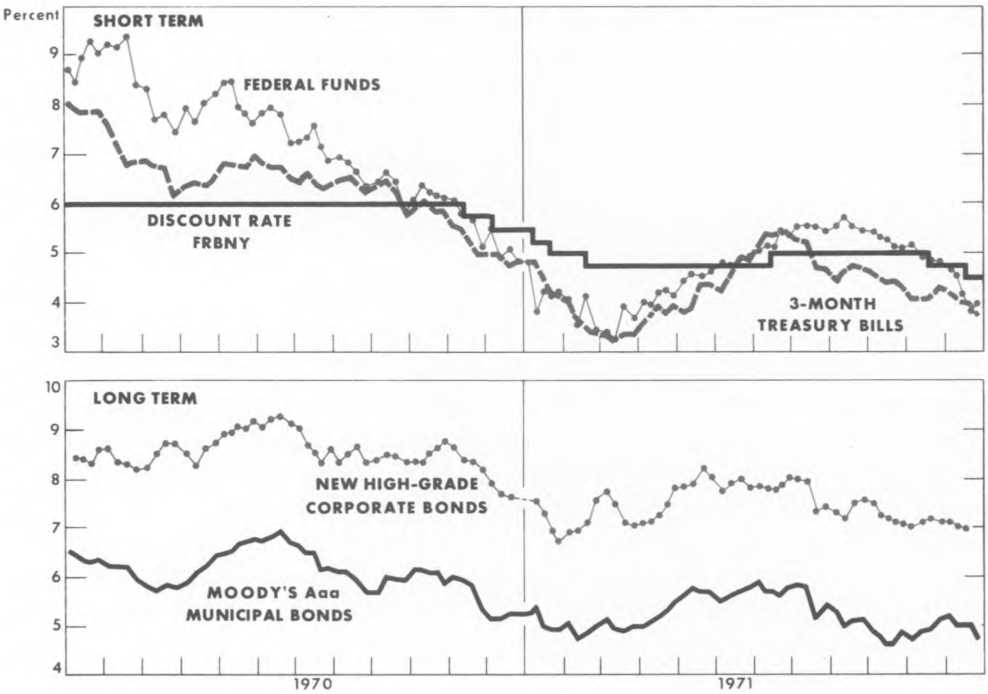
Partly in response to the easing of money market conditions during the first quarter, yields in the capital markets declined slightly on balance, despite a record supply of new corporate and municipal bond issues, while the growth in the monetary and credit aggregates accelerated. M_1 advanced during the quarter at a seasonally adjusted annual rate of 9.1 percent. This brought the growth rate in this aggregate over the six months ended in March to 6.5 percent, a rate which was about the same as that during the first nine months of 1970. M_2 rose at an exceptionally rapid pace—18.1 percent at an annual rate—as short-term market rates declined and the public shifted massive amounts of funds from Treasury and Federal agency securities to higher yielding time and savings deposits. The huge inflow of these deposits prompted commercial banks to reduce further their dependence on Euro-dollar borrowings from their foreign branches, and thus bank credit grew at a more moderate rate than M_2.

At the same time, the reduction of Euro-dollar borrowings aggravated an already serious balance-of-payments problem. In an effort to stem the flow of dollars abroad, as well as to encourage banks to preserve their reserve-free bases against a time of need, the Board of Governors of the Federal Reserve System raised the reserve requirements for Euro-dollar borrowings in excess of the base from 10 percent to 20 percent, effective January 7, 1971. Other official measures aimed at limiting the flow of dollars into foreign central banks included the sale of Export-Import Bank and Treasury securities to foreign branches of United States banks.[1] The Board of Governors amended its regulations to allow member banks to count funds invested in these securities toward maintenance of their reserve-free bases. Despite these measures, there were exceptionally large capital outflows in March and early April partly as a result of the very sizable differential between short-term interest rates in the United States and several European countries.

Against this background and particularly in light of projections that the monetary aggregates might grow too rapidly in the second quarter if prevailing money market conditions were maintained, the majority of the members of the FOMC voted at the April 6 meeting to aim for a minor and temporary firming

[1] *The Export-Import Bank notes were replaced by Treasury securities around midyear. Beginning in late August the Treasury let all of its special securities sold to foreign branches run off at maturity.*

Chart 5. SELECTED INTEREST RATES: Short-term interest rates varied over a wide range in 1971, reflecting efforts by the Federal Reserve to speed or slow the growth of the monetary and credit aggregates as the situation warranted. Long-term rates fluctuated irregularly during the first seven months of the year but then fell decisively as the New Economic Policy encouraged participants in the bond market to expect a slower rate of inflation and a more stimulative monetary policy.



of such conditions. This Bank's President, concluding that both the domestic and international circumstances warranted a somewhat more definite firming action, cast one of the two dissenting votes.

During the following months, as it became clear that the monetary aggregates were growing too rapidly, the System gradually tightened money market conditions further. The average effective rate on Federal funds rose steadily from 3.71 percent in March to 5.31 percent in July, while other short-term interest rates, including the commercial bank prime lending rate, also rose significantly.

On July 15 the Board of Governors announced the approval of an increase in the discount rate by ¼ percentage point to 5 percent, which had been voted by the directors at four of the Federal Reserve Banks including New York. Earlier, on May 6, this Bank's directors, because of deep concern over the international currency crisis that was developing, had voted to raise the discount rate to 5¼ percent, but that increase was disapproved by the Board of Governors. The Board stated that its approval of the July increase was intended to bring the discount rate into better alignment with short-term interest rates and to reflect the System's concern over the continuation of substantial cost-push inflation. The remaining Reserve Banks quickly adopted the new 5 percent rate.

In spite of the progressive firming of money market conditions during the April-July period, the monetary aggregates continued to grow very rapidly; M_1, for instance, advanced at a 10.5 percent annual rate. Although the reasons for this unusually rapid growth are not fully known, two factors stand out. In the first place, the demand for money was surprisingly strong. To some extent, this may have represented a lagged response to the sharp declines in short-term interest rates in late 1970 and early 1971, although uncertainties over unemployment and inflation may have played a role as well. Secondly, the System moved cautiously in restraining monetary growth to avoid placing too much upward pressure on long-term yields in the capital markets. In view of the weak recovery, sharply rising long-term rates were considered undesirable because of their possible adverse effects on spending, particularly in the residential construction and state and local government sectors. Pressures from other sources during this period were already forcing long-term yields higher, as the supply of new corporate and municipal bonds remained quite heavy. In addition, there was considerable investor apprehension over the international monetary situation, particularly in late April and early May when the disturbance in the foreign exchange market reached crisis proportions at the same time that the Treasury was conducting a major financing. Moreover, the persistence of cost-push inflation weighed heavily on the market. The System was aware, however, that rapid growth in the monetary aggregates over an extended length of time would be inconsistent with a healthy economic recovery, and thus one of its major goals was to reduce the rate of monetary expansion in the months ahead.

THE GROWTH OF THE MONETARY AGGREGATES SLOWS. Even before President Nixon's announcement of a basic shift in the nation's economic policies, the System had expected that the rate of monetary expansion would begin to slow in August and September in lagged response to earlier increases in short-term interest rates and to the reduced availability of reserves. The actual drop that occurred in the growth of the monetary aggregates, however, went far beyond what had been anticipated. Indeed, M_1 advanced at an annual rate of only 3 percent in August and then declined at a 2 percent rate in September. One factor that influenced the slowdown in August was the move by business firms to draw down their demand deposits, presumably for transferring funds abroad during the period of intense activity in the foreign exchange markets. Such transfers, along with huge dollar outflows from other sources, resulted in a sharp buildup in Treasury deposit balances, as foreign central banks purchased $5 billion of nonmarketable securities directly from the Treasury with excess dollars absorbed in the exchange markets. The New Economic Policy, however, apparently had an independent and dramatic moderating effect on the growth of the monetary aggregates, as evidenced by the decline in M_1 that occurred in September after the capital outflows had abated. The new policy seems to have relieved some of the uncertainties caused by inflation and unemployment, thereby lessening the demand for cash held for precautionary reasons. In addition, during the period of the price freeze, it brought about a sharp decline in the rate of inflation which reduced the growth in balances needed for transactions purposes. The slowdown in the growth of the monetary aggregates, however, exceeded the FOMC's objectives, and during September the System began to ease money market conditions.

The President's announcement also had a dramatic effect on the bond market. For example, yields on newly issued high-quality corporate bonds tumbled by as much as 80 basis points during the third week in August, while yields on Treasury coupon securities and municipal bonds also fell rapidly (see Chart 5). These precipitous declines in long-term yields suggest that investors were trimming the inflationary expectations which had become embedded in yield structures and also that they expected that the new economic program would permit a more stimulative monetary policy. Yields fluctuated widely during the last four months of the year. By the end of 1971, yields on long-term corporate and United States Treasury bonds were near their lows for the year, and tax-exempt bond yields were near the lowest levels seen in almost three years.

While yields in the bond market were moving sharply lower, rates on most money market instruments changed little during the August-September period. The Federal funds rate, for instance, edged upward early in August and then remained steady in the vicinity of 5½ percent. Rates on most Treasury bills, however, plummeted in August by about 80 to 110 basis points, mainly because of heavy foreign central bank purchases in the open market. These purchases were in addition to the special securities acquired directly from the Treasury. During the fourth quarter, money market rates declined on a broad front, partly in response to efforts by the System to stimulate the growth in the monetary and credit aggregates. Most major commercial banks made successive cuts in their prime lending rate to 5¼ percent at the end of the year, compared with 6¾ percent a year earlier. In a related development, several major banks broke with tradition and adopted a floating prime rate pegged to rates on ninety-day commercial paper and, in one case, on eighty-nine-day negotiable CDs.

Efforts to stimulate the growth in the monetary aggregates during the last four months of the year were made only gradually at first. In view of the unusually rapid growth in the monetary aggregates earlier in the year, the System felt that relatively low rates of expansion for several months would not be inconsistent with its general objectives for the year as a whole. However, as M_1 continued flat month after month, the System became increasingly aggressive in easing money market conditions. The Federal Reserve discount rate was lowered in mid-November by ¼ percentage point to 4¾ percent. On December 10, the Board of Governors announced the approval of a further reduction in the discount rate of four Federal Reserve Banks to 4½ percent. The Board explained that this action "was taken in recognition of the prevailing levels of market interest rates and to assist the economic expansion". By December 24, all of the Reserve Banks had adjusted their rates to the new level, bringing the discount rate to the lowest point since March 1968. The Federal funds rate fluctuated around the discount rate in November but then dropped sharply to below 4 percent in the last half of December.

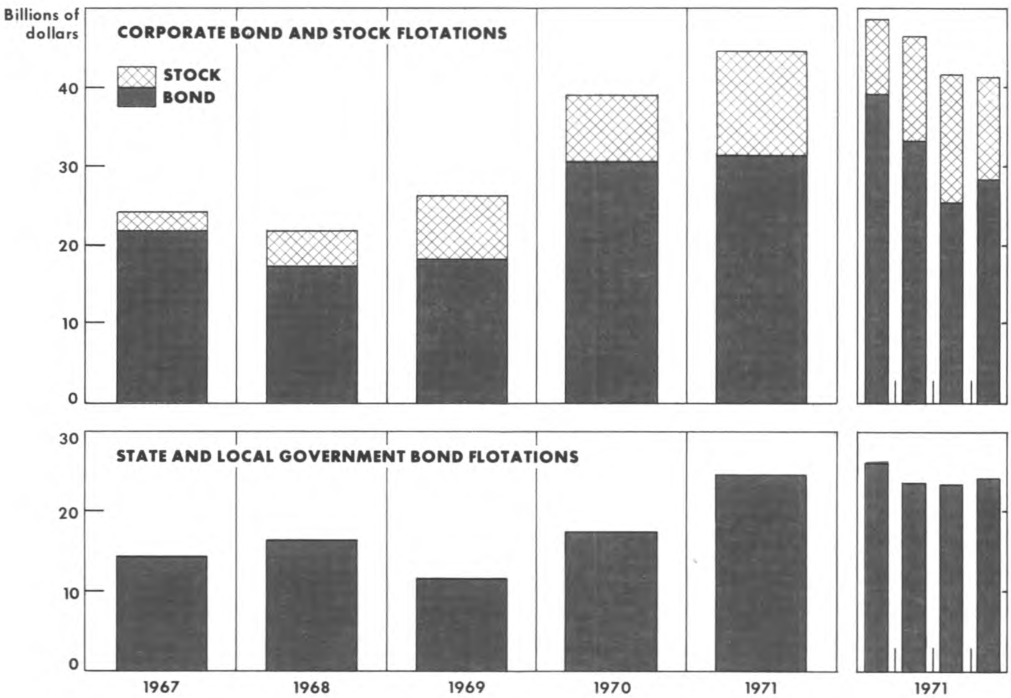
The narrow money supply was slow in responding to the considerable easing of money market conditions. Indeed, by November, M_1 was still only slightly above its July level. It began to show renewed strength in December, although the growth over the fourth quarter as a whole was at a minuscule 1.1 percent annual rate. The growth of M_2, however, accelerated to an annual rate of 8.0 percent in the fourth quarter. The strengthening of M_2 growth from the relatively low third-quarter rate reflected faster increases in consumer-type time and savings deposits, which became relatively attractive to savers as rates on competing instruments declined. Bank credit rose at an annual rate of 8.8 percent during the fourth quarter, slightly below the growth rate prevailing earlier in the year.

BANK CREDIT AND CAPITAL MARKET DEVELOPMENTS. Although the growth in total bank credit was fairly steady in 1971, there were substantial changes in its composition. During the first half of the year, much of the increase in bank credit reflected a strong rise in holdings of securities, especially tax-exempt state and local government securities. Banks continued to acquire tax exempts in large volume during the second half of the year. However, they reduced their holdings of United States Treasury securities during this period, when the Treasury satisfied most of its financing needs through sales of special nonmarketable securities to foreign central banks. Among the loan components, real estate loans exhibited considerable strength over the entire year, reflecting the continuing boom in construction. Consumer loans expanded moderately over the first seven months and then surged following President Nixon's announcement of the price freeze and the recommendation to remove the excise tax on automobiles. Business loan demand was generally weak in 1971 as it had been in 1970. There was, however, an exceptionally large gain in August, apparently resulting from borrowings of funds which were converted into foreign currencies in anticipation of a depreciation of the dollar. For the other eleven months of the year, business loans rose at an average annual rate of 4.2 percent, slightly above the gain in 1970 but far below the average annual growth of 10.5 percent recorded over the past ten years.

The factors responsible for the weakness in business loan demand in 1971 were similar to those operating in 1970. On the one hand, corporate tax liabilities and the level of inventory investment were modest. At the same time, many corporations endeavored to lengthen the structure of their debt and strengthen their liquidity positions by turning to the capital markets for funds (see Chart 6). As a result, gross corporate bond flotations (including both public sales and private placements) came to a record $31.6 billion in 1971, slightly above the unusually large volume in such offerings during the previous year. Total corporate equity offerings during 1971, amounting to $13.1 billion, also set a record.

In the tax-exempt bond market the relatively cheaper borrowing costs in 1971, compared with the rates prevailing over the past several years, encouraged state and local governments to step up their long-term borrowings (see Chart 6). Indeed, state and local government bond issues in 1971 came to $24.4 billion, $6.6 billion above the previous record offerings in 1970. The Federally sponsored credit agencies, including the Federal National Mortgage Association (FNMA) and the Federal Home Loan Banks (FHLB), reduced their borrowing in 1971. The dominant factor accounting for this decline was the huge supply of mortgage credit provided by private lenders which enabled FNMA and the FHLB to curtail sharply their mortgage support activities. FNMA retired a small amount of debt during the first half of the year but resumed borrowing during the second half. For the year as a whole, FNMA raised $2.5 billion net, compared with $4.7 billion in 1970. Large deposit inflows to savings and loan associations made the repayment of loans from the FHLB possible. The FHLB,

Chart 6. BOND AND STOCK FLOTATIONS BY MAJOR SECTORS: Corporations raised record amounts of funds in the bond and equity markets in 1971 in an effort to lengthen the structure of their debt and strengthen their liquidity positions. Bond offerings of state and local governments also advanced at a record pace, reflecting more favorable borrowing conditions in 1971, compared with those prevailing in the past several years.



Estimates of new issues maturing in more than one year sold for cash in the United States. Quarterly figures are expressed at annual rates, not seasonally adjusted.

in turn, retired $2.7 billion of their own debt during the year after raising $2.1 billion in 1970.

Congressional legislation in March granted a long-sought extension in the scope of Treasury debt management by authorizing sales of up to $10 billion in long-term bonds without regard to the 4¼ percent interest rate ceiling established in 1918. Since 1965 the Treasury had been unable to sell securities with maturities longer than seven years because long-term rates were above the ceiling rate. During 1971, under the new authorization, the Treasury sold $2.0 billion of these securities, about half of which was taken by the public and half by official accounts.

Total net Federal Government borrowing from the public in 1971 came to nearly $25 billion, more than twice its level in 1970. Almost half of this borrowing was met by the issuance of nonmarketable securities to foreign central banks that absorbed dollars in the exchange markets. By the year-end, the total volume of these securities held by foreign official institutions amounted to $16.7 billion. Foreign central banks also purchased a large amount of marketable United States Government securities during 1971, as indicated by the $16 billion rise in such securities held in custody by this Bank for foreign and international accounts. Indeed, Federal Government securities in the hands of the public—excluding the Federal Reserve, United States Government accounts, and foreign official accounts—actually declined during 1971 in spite of the large budgetary deficit.

THE INTERNATIONAL ECONOMY

The year 1971 was marked by an abrupt transformation of the world financial scene, as the international monetary system suffered its worst ordeal of the postwar period. Early in the year, conditions in the exchange markets remained generally calm. However, this atmosphere quickly faded in the spring when the strains generated by large interest rate spreads between the United States and Europe were reinforced by a renewed wave of speculation on a revaluation of the German mark. On May 5 the German authorities responded to these and other pressures by adopting a floating rate for the mark. When the German move was quickly followed by a revaluation of the Swiss franc and Austrian schilling and by a suspension of par value obligations by the Netherlands, fears of similar action by other countries swept through the exchange markets. In subsequent months, as the rush from the dollar into other currencies increased in intensity, these fears grew all the more plausible.

On August 15, President Nixon announced the suspension of convertibility of the dollar into gold or any other reserve asset. This decision, coupled with the introduction of a temporary 10 percent surcharge on dutiable imports into the United States, set the stage for a realignment of exchange rates—in some cases long overdue. Within weeks after these measures were announced, virtually every major foreign country suspended its commitment to defend its declared parity and some realignment occurred *de facto* as currencies floated upward against the dollar. But the process by which these adjustments were brought about was not without its costs. The pattern of exchange rates that emerged in the aftermath of the August measures was largely the by-product of *ad hoc* official intervention, exchange controls, and other nonmarket influences, including the import surcharge. More than two decades of efforts to liberalize trade and payments restrictions had suffered a temporary but nevertheless serious reversal, the operation of the International Monetary Fund (IMF) was almost completely immobilized, and the entire fabric of international monetary cooperation was badly strained. As the crisis dragged on, the risks of prolonged departures from agreed rules became abundantly clear and posed a major threat to the economies of all countries. The worst of these dangers subsided after December 18, when agreement was reached on a broad realignment of exchange rates among the Group of Ten countries. This realignment, achieved in part through a prospective devaluation of the dollar in terms of gold, helped restore a badly needed measure of international monetary order, but the more fundamental changes required to rebuild confidence in the viability of the international monetary system remained to be completed.

The Gathering Crisis

The events of 1971 had no simple or single cause. Rather they stemmed from a variety of developments and policies here and abroad over a period of years. The emergence of effectively integrated money markets, mainly in the form of the Euro-currency markets, had already provided a convenient mechanism for movements of liquid funds between currencies in response to interest rate differentials or for a variety of other reasons. Moreover, the growth and proliferation of multinational corporations, which typically use financial facilities in several countries, further intensified the sensitivity of short-term capital movements to interest rate differentials and to expectations of changes in exchange rates. Both of these developments—in themselves a reflection of the increasing integration of the world economy—had clearly contributed to the strains to which the system was exposed in the late sixties. But the magnitude of the potential movement of short-term funds was more fully revealed in 1970, when for the first time in several years monetary policies in the United States and in Europe moved in opposite directions.

In the United States, the long period of generally excess demand that began in 1965 with the escalation of the war in Vietnam had come to an end by 1970. Indeed, by that time, with real output stagnant and unemployment rising, the posture of monetary policy had fully shifted from restraint to ease in an effort to prevent a cumulative decline in output. In Europe, inflationary pressures emerged somewhat later—and the need for monetary restraint lasted later—than in the United States. Thus, during 1969, most European countries moved toward increasingly restrictive monetary policies, first, in a defensive response to increasing capital outflows and, then, as Europe's own economic expansion gathered momentum, to cope with domestic inflationary pressures. These measures came too late or with too little support from fiscal policy to contain quickly the demand pressures that had developed. However, the mix and posture of policies in the United States and abroad were fully reflected during 1970 in a profound change in the pattern of interest rates in the major international markets and in the direction of short-term capital flows through the Euro-dollar market.

Throughout 1970, as credit conditions progressively eased in the United States while interest rates in Europe lagged well behind, wide interest rate differentials opened up in favor of domestic European markets over both the United States money market and the Euro-dollar market, and during the year short-term capital flowed continuously and on a massive scale from the United States to Europe. Most of this flood of short-term funds represented repayments by United States banks of some $6 billion of Euro-dollar funds borrowed from their overseas branches in the earlier period of monetary restraint. With this reflux of funds, Euro-dollar rates receded from their earlier peaks. However, with monetary policy in most European countries still oriented toward restraint, the bulk of the funds returned to the Euro-dollar market was absorbed on an unprecedented scale by bank and nonbank borrowers overseas for conversion into foreign currencies. As these short-term funds moved across the exchanges, foreign official institutions had to absorb dollars from the market. With the outflow of short-term funds superimposed on a large underlying deficit, the United States balance of payments on official settlements shifted from a surplus of $2.7 billion in 1969 to a deficit of almost $11 billion in 1970.

As ominous as it was, the deficit was financed without strain. A large part of the official dollar accruals was used—notably by the United Kingdom and France—to meet repurchase commitments to the IMF or to make debt repayments to United States official agencies. Other countries, having sustained fairly large official reserve losses in earlier years, were content to add to their dollar balances in rebuilding their reserve holdings. Moreover, most foreign central banks clearly recognized that the United States had engaged in a major effort to eliminate demand pressures and, while the transition to price stability was far from complete, were prepared to finance a sizable imbalance by accumulating dollars, just as the United States had been called upon to finance other countries' deficits in 1969. And market confidence in the dollar was well sustained, for it was clear that the pressure on the dollar in the exchange markets largely reflected interest-induced flows of funds—movements that could be quickly and fully reversed with changes in monetary conditions in the United States and abroad.

In the event, the size and the speed of the redistribution of dollar liabilities from foreign commercial banks to monetary authorities were much greater than expected, and interest rate differentials continued to induce large movements of funds out of dollars into other currencies through the early months of 1971. In January and February, the Export-Import Bank sold a total of $1.5 billion of special three-month securities in a move to immobilize Euro-dollar funds that might otherwise have been absorbed by nonresidents. Then, in April the United States Treasury followed up the Export-Import Bank's previous borrowings by issuing $1.5 billion of short-term certificates of indebtedness to the foreign branches of United States banks in a further effort to mitigate foreign official reserve gains.

Indeed, the accrual of official reserves overseas had, to some degree, undermined policies of monetary restraint in a number of European countries. Accordingly, several foreign governments and central banks introduced a wide variety of special measures to discourage their own residents' use of Euro-dollar credit, ranging from outright restrictions on short-term foreign currency borrowings for domestic use to official forward exchange market operations designed to increase the effective cost of borrowed funds. Partly as a result of these measures, interest-arbitrage spreads in favor of domestic European markets were narrowed or even reversed in late March or early April 1971. At that point, there were some signs that the underlying cyclical positions in the United States and other industrial countries had begun to move into closer alignment. Moreover, with the repayment of all but a small portion of the outstanding liabilities of United States banks to their foreign branches, little scope remained for further outflows of dollars from the United States banking system in this particular form.

Nevertheless, evidence continued to accumulate that the underlying deficit in the United States external accounts was large and increasing and, despite the convergence of short-term interest rates, the rush of funds out of dollars accelerated sharply early in the spring on expectations of a revaluation of the German mark. Even before this intensification of speculative activity, the international financial markets had begun to sense a developing dollar crisis. The various efforts to slow down the liquidation of Euro-dollar debt by United States banks had little visible effect on the balance on official settlements. Even more ominous, the United States trade surplus, after having increased considerably during the first half of 1970, began to narrow very rapidly in the latter half of the year and deteriorated even further during the early months of 1971. In this and other respects, the performance of the United States economy was clearly disappointing.

Although the weakness of the dollar was spread across the exchanges, the German mark—already in demand for other reasons—was particularly exposed to renewed speculative demands. The major burden of anti-inflationary policy in Germany, as in other continental European countries, had been assumed by the monetary authorities and, in the absence of adequate fiscal restraint, interest rates in Germany were driven to very high levels. As domestic credit conditions tightened, German commercial banks began early in 1970 to repatriate foreign balances and borrowed additional funds from abroad to accommodate domestic demands. Starting in the spring of 1970, the German Federal Bank had moved to restrain such inflows, largely through the imposition of progressively higher marginal reserve requirements on the growth of the banks' foreign liabilities. Full freedom remained available, however, for nonbank institutions to borrow directly abroad, particularly in the Euro-currency market, to meet their credit needs. In the absence of any restraint on residents' access to foreign-owned funds, German corporations alone were able to absorb more than $4 billion through the Euro-currency markets in 1970 and borrowed another $3.8 billion during the first four months of 1971, as they continued to circumvent the effects of domestic credit stringency.

The resultant inflows of dollars, by adding to the domestic monetary base, further compounded the problems of monetary management in Germany. Those problems might not have been so acute if appropriate fiscal measures had been taken earlier. Without adequately restrictive fiscal policies, the German authorities were confronted with a major dilemma of how to make a restrictive monetary policy effective, while simultaneously avoiding recourse to selective or general controls on capital inflows. In late February, the authorities responded to this problem by squeezing the covered interest differential in favor of the German mark through three-month forward sales of marks. Although the forward mark discount widened considerably, the underlying interest differential also widened, and it soon became clear that a very large volume of forward sales would be required to maintain the forward mark at a sufficient discount. Accordingly, the operation was phased out by mid-March.

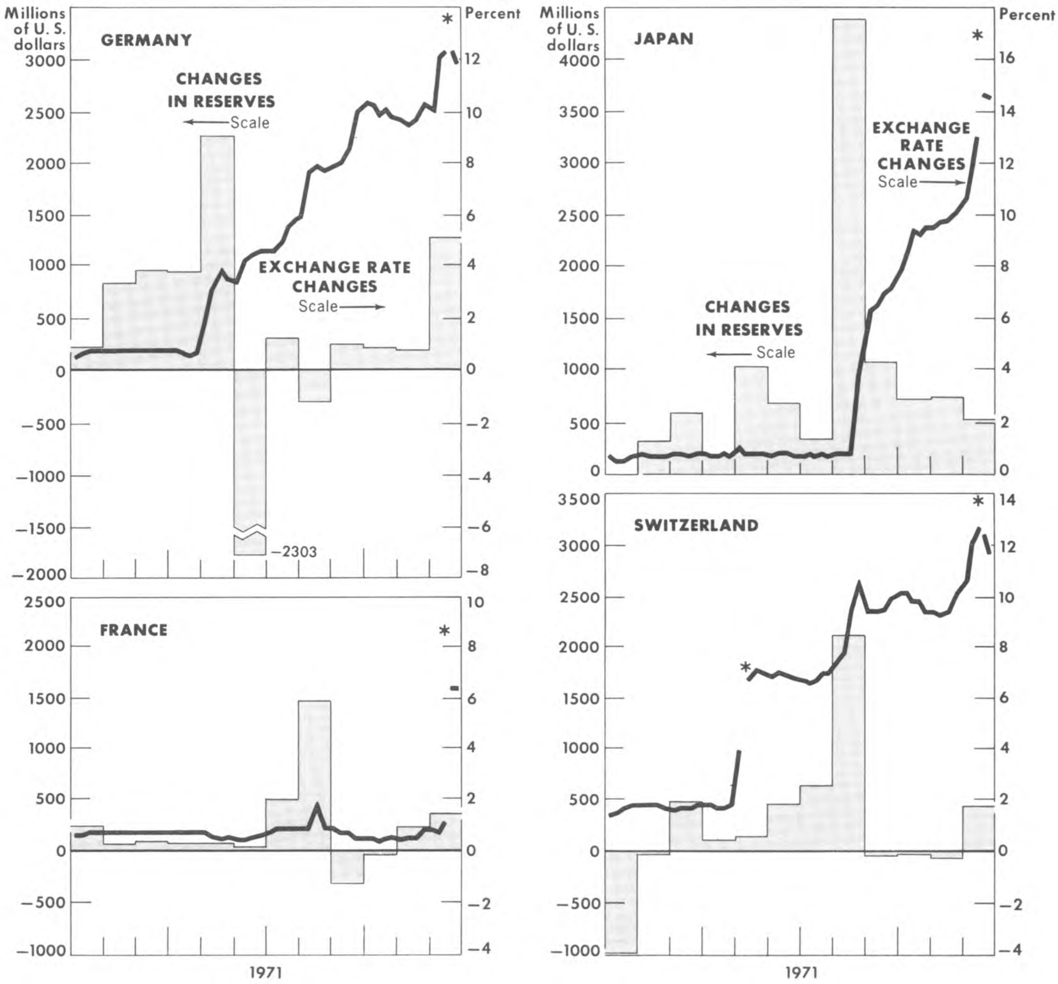
At the end of that month, the German authorities, in a long-awaited move, cut the central bank's discount rate by a full percentage point but, at the same time, reinforced credit restraint by reducing the banks' rediscount quotas by 10 percent. With little easing of domestic liquidity conditions thus in prospect, the demand for marks quickly surged once again—this time with strong speculative overtones. In this atmosphere of increasing apprehension, the German Federal Bank on April 2 initiated a new series of forward operations, offering three-month forward marks at the spot ceiling rate. The Federal Reserve System joined in the operation by offering forward marks at the same rate in New York. These sales helped to restore a fragile measure of confidence in the government's commitment to defend the parity. On April 28, however, the authorities decided to withdraw their offer of forward marks and to let the forward rates reach their own level. The market—already beset by rumors of developing rift among European Community (EC) countries on alternative ways to shield official reserves from further capital inflows—reacted immediately, and both spot and forward marks were heavily purchased.

Through the first four months of the year, German official reserves had increased by about $3.0 billion (see Chart 7). Early in May, the major German economic research institutes joined in recommending the adoption of a floating rate as the most appropriate solution to the conflict between the policies required to restore both domestic stability and balance in external payments. When these well-publicized recommendations were greeted sympathetically by some German officials, the central bank was flooded with offers of dollars. After having absorbed more than $1 billion over the two days, May 3-4, and another $1 billion within the first hour of trading on Wednesday, May 5, the authorities withdrew from the exchange market, effectively allowing the mark to float upward.

In the immediate aftermath of this decision, speculation spread to other currencies—including those of Austria, Belgium, the Netherlands, and Switzerland—each of which has close trading ties with Germany. In each of these countries, any appreciation of the mark, in the absence of any exchange rate action on their own, would have had a significant direct impact on domestic price levels, in addition to any indirect inflationary effects resulting from an improvement in their overall payments positions. Consequently, these four countries—each similarly concerned with domestic inflationary problems—felt obliged to protect themselves against the inflationary backwash of the German move, and on the same morning the central banks of each of these countries also terminated official support for their parities.

Over the following weekend, the Swiss franc and Austrian schilling were revalued by 7.07 percent and 5.05 percent, respectively. The German authorities announced that, as an anti-inflationary move, the trading limits for the mark would be suspended temporarily although the official parity was to remain unchanged. The Dutch government, following the German move, announced

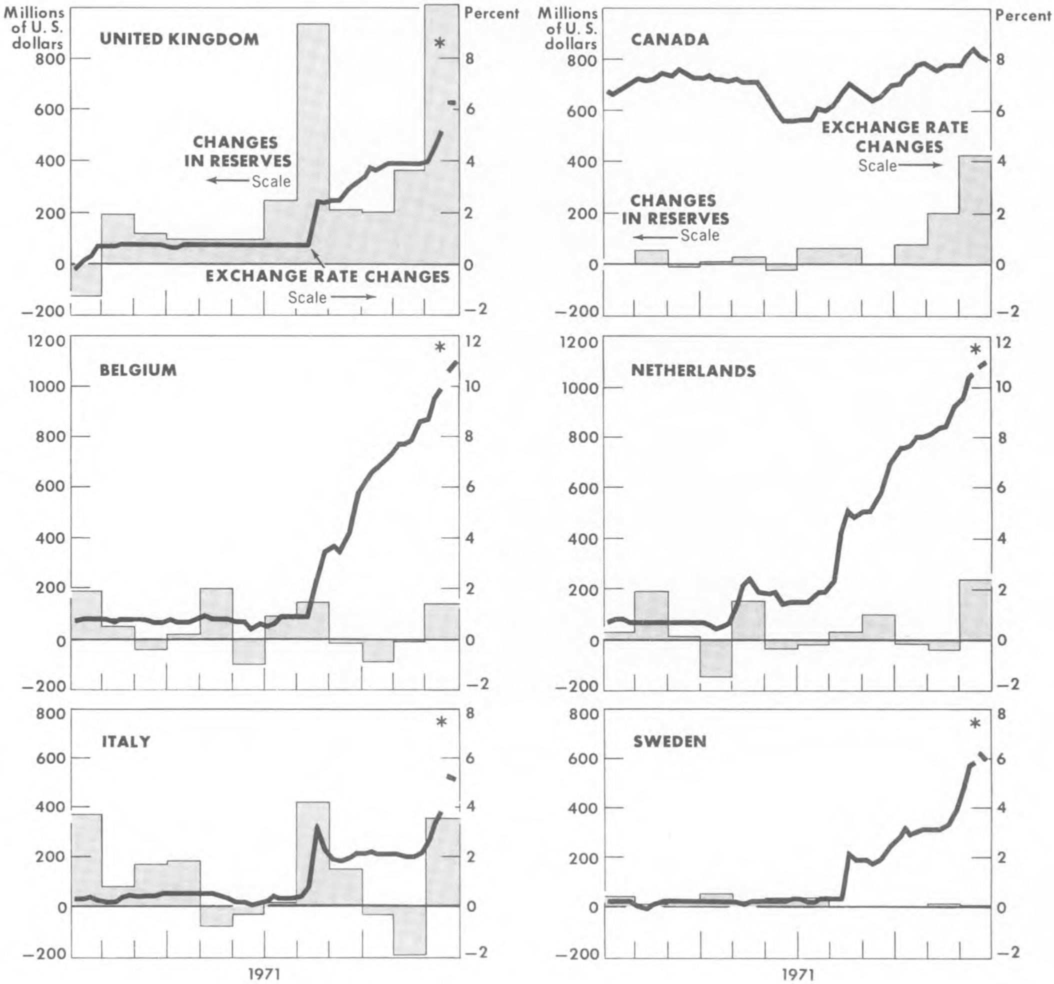
Chart 7. EXCHANGE RATES AND RESERVES: Germany's official reserves declined, on balance, after May when the mark was allowed to float. But Japan, France, and Switzerland each acquired dollars in unprecedented amounts during August. The latter two countries effectively insulated official reserves from further capital inflows, but Japanese dollar holdings continued to rise.



* New exchange rate parity or central rate.

Changes in exchange rates are measured by weekly averages of the New York noon offered rates and are shown as a percentage above or below the parities in effect at the beginning of 1971. The monthly changes in official international reserves exclude the allocation of special drawing rights in January 1971.

Chart 8. EXCHANGE RATES AND RESERVES: The pound sterling, Belgian franc, and Netherlands guilder each moved to a moderate premium after August 15. The upward pressures on the Italian lira and Swedish krona were somewhat weaker, while the exchange rate for the Canadian dollar, which had been floating since May 1970, showed little net change during the course of 1971.



*New exchange rate parity or central rate.

Changes in exchange rates are measured by weekly averages of the New York noon offered rates and are shown as a percentage above or below the parities in effect at the beginning of 1971. The monthly changes in official international reserves exclude the allocation of special drawing rights in January 1971.

that the Netherlands Bank was temporarily withdrawing its buying and selling rates for the dollar, thus allowing the guilder to float also (see Chart 8). On May 11, the Belgian authorities announced that they would continue to observe the existing official intervention levels but, to minimize their exposure to further reserve accruals, would channel all capital flows—inward as well as outward—and all other noncommercial transactions through the financial franc market, which would not be supported.

However necessary these changes may have been for domestic purposes, they came as a shattering blow to confidence in the continued viability of the Bretton Woods system and activated latent fears that other countries might take similar action—whether by changing their declared parities or by permitting movements of exchange rates beyond the prescribed margins. Following a brief reflux of funds into dollars during June, the demand for other currencies quickly increased in intensity, with one foreign currency after another the focus of speculative forays as a general run on the dollar developed.

At the end of June, for the first time during the prolonged period of unsettlement, the speculative focus shifted to the French franc. At first, the demand for francs mainly reflected another reversal of interest differentials, this time in favor of France. Then, after an inconclusive meeting of the EC Finance Ministers on July 1-2, rumors began to circulate that the French government, which had made known its determination to maintain the existing parity of the franc, might agree to a widening of the trading margins of all EC currencies against the dollar. As the spot rate was driven to its ceiling, the Bank of France absorbed dollars on a large scale. To slow these flows, the Bank of France pushed French money market rates below comparable Euro-dollar quotations and early in August instructed the commercial banks not to increase their net external indebtedness *vis-à-vis* nonresidents. With the franc already in strong demand, these and related instructions were interpreted by the market as evidence of the French authorities' unwillingness to accumulate additional dollars. The market quieted somewhat in early August, when the Bank of France introduced additional measures to restrain further inflows.

At this point, with virtually every major Continental currency partly insulated either by exchange controls or by floating rates, pressures converged on the Swiss franc—long regarded as a haven against financial and other risks—on the pound sterling, and with even greater force on the Japanese yen. In the general run on the dollar then under way, the central banks in each country took in massive amounts of dollars through Friday, August 13.

Suspension of Convertibility and its Aftermath

Throughout this period of nearly continuous turmoil in the exchange markets, the viability of the United States commitment to maintain the convertibility of officially held dollar balances into gold had been badly undermined by the progressive erosion of the United States reserve position. During this period the Federal Reserve System made frequent and sizable drawings on the swap lines with foreign central banks to absorb dollars that might otherwise have been converted into gold or other reserve assets. At the same time and for the same purpose, the United States Treasury sold a total of $640 million in new foreign-currency-denominated issues to foreign official institutions. Nevertheless, the United States paid out almost $2 billion in reserve assets over the first seven months of the year and an additional $1.1 billion in the first two weeks of August alone. At that point, liquid dollar liabilities to foreign official institutions were more than three times larger than the United States reserve holdings, and the seemingly unending accumulation of dollar balances carried with it the potentiality of even larger reserve losses in the days and weeks ahead. For by early August, with no sign of any substantial moderation of domestic inflationary pressures and with increasing evidence of a further deterioration in the United State competitive position, confidence in the dollar—domestic and foreign—had been thoroughly eroded. Indeed, by that time, as the rush from the dollar reached full flight, the prospect of any spontaneous reflux of funds had practically disappeared altogether.

Under these circumstances, President Nixon, on August 15, announced the suspension of convertibility of the dollar into gold or other reserve assets. At the same time, the President introduced a surcharge of up to 10 percent on dutiable imports into the United States as a temporary measure to be removed as soon as it had served its announced objective—an effective realignment of exchange rates. The suspension of convertibility was intended to generate momentum toward the negotiation of new international monetary arrangements. However, these measures were not without their immediate risks. The introduction of the surcharge, however temporary, clearly entailed a risk of retaliatory responses abroad, with all the dangers of an irreversible drift into protectionism. The suspension of convertibility—whatever its eventual consequences—removed the linchpin of international monetary arrangements.

The August measures came as a shock to the international community. In the week following the President's announcement the major European exchange markets were officially closed, while the governments searched for a joint policy response to the United States measures—whether to revalue, to float, or to maintain existing parities with or without increased exchange controls. These negotiating efforts again ended without agreement and, when the markets reopened on August 23, most of these options as well as others were exercised. While none of the major governments changed their pre-August 15 parity, all but the French government suspended their commitments to defend the previous upper limits of their exchange rates. The Belgian government decided to allow the official franc as well as the financial franc to float, and the pound sterling, the Italian lira, and the Swiss franc each joined the German mark and the Netherlands guilder in floating upward. Such continuing intervention as was undertaken by the French government was confined to a segregated market for commercial transactions, while all other transactions were diverted to a financial market where the franc quickly moved to a small premium.

While the European markets were closed, the market for the Japanese yen remained open. The yen had earlier been caught up in the successive waves of speculation that hit the European exchanges in the spring and early summer, and in the process the Bank of Japan took in dollars on a very large scale. By early August, with dealers around the world convinced more than ever that a revaluation of the yen was imminent, the authorities were inundated with offers of dollars. Finally, after having absorbed $4.4 billion in August alone, the Japanese authorities announced that, effective August 28, they would no longer intervene in the exchange markets at the official limits.

Within two weeks after the United States measures were announced, virtually every major currency had moved to a premium over its official parity, ranging from 1.7 percent for the Italian lira to about 8.0 percent for the German mark. However, any illusions that a realignment of exchange rates at new parities would be quick to materialize faded as the crisis continued into the fall. Although the need for a broad realignment was generally acknowledged, there was little official consensus on either the size or the distribution of exchange rate adjustments by or among countries. And for a while there was a clear division of official views between the United States and other countries on the process by which a realignment of exchange rates might be brought about—whether through a reduction in the gold parity of the dollar, by an increase in other currencies' gold parities, or through some combination of the two.

In the absence of any consensus on these and other issues, and in view of the uncertainties as to what exchange rate adjustments might take place, almost every country attempted to minimize the appreciation of its own currency in terms of the dollar, either through *ad hoc* purchases of dollars outside the usual margins or by more intensive use of direct and indirect measures designed to inhibit capital inflows. The very day after the suspension of convertibility of the dollar, the Swiss authorities imposed a 100 percent reserve requirement against increases in the commercial banks' net foreign liabilities. On August 26, when the rate for the franc reached a premium of 3 percent, the three major Swiss banks agreed to block the Swiss franc proceeds of any dollar sales by nonresidents, over and above a daily maximum, in three-month noninterest-bearing accounts. Then on September 1 the Japanese authorities, in effect, barred the foreign exchange banks from increasing their external liabilities in order to limit any further potential increases in official reserves. That same week, the Dutch authorities took additional steps to discourage nonresident purchases of guilder-denominated bonds, which had become a major vehicle for capital inflows. Early in December the Bank of France, in a further attempt to prevent an appreciation of the financial franc, broadened its exchange regulations by partially blocking the use of nonresidents' holdings of franc balances. At about the same time the Italian authorities, following a similar move taken earlier in France, instructed the commercial banks to refuse conversion of foreign currencies into lire for transactions that might be considered speculative in character.

The exchange rate pattern thus emerging after August 15 was largely the by-product of outright official purchases of dollars and of an extensive network of official regulations. Moreover, upward pressure on foreign exchange rates was to some extent mitigated by the United States import surcharge, which tended to reduce normal commercial demands for foreign exchange. In the uncertainty that prevailed in the exchange markets, however, the effects of normal market demands on exchange rate movements were swamped by the impact of rumors and conflicting reports of official agreement—or disagreement—on appropriate exchange rate levels. Under these circumstances, the exchange markets provided very limited guidance as to the currency relationships that would restore a more balanced pattern of international payments.

As the crisis dragged on, it became increasingly evident that foreign governments would not establish and observe new parities for their own currencies unless the United States was prepared to participate in the realignment by devaluing the dollar in terms of gold. Under different circumstances and if undertaken unilaterally, any increase in the monetary price of gold would have been almost universally regarded as a retrogressive step in terms of the need to reduce the role of gold in the world's monetary arrangements and as an uncertain measure in terms of its effects on the pattern of exchange rates. But by late 1971, an increase in the gold price—however nominal—had become an essential condition for the immediate restoration of monetary order, without which it would be all the more difficult, if not impossible, to reach agreement on more fundamental changes in international monetary arrangements.

Rather than risk any further prolongation of the crisis, with all its political and economic dangers, on December 18 the United States agreed—as part of a broad realignment of currency relationships among the Group of Ten countries—to propose to the Congress an increase in the dollar price of gold to $38 per ounce from $35 per ounce, an increase of 8.57 percent. Over the next few days, the major industrial countries announced effective revaluations of their own currencies in terms of dollars, amounting to 16.88 percent for the Japanese yen, 13.58 percent for the German mark, 11.57 percent for both the Belgian franc and the Netherlands guilder, 8.57 percent for the pound sterling and French franc, and 6.36 percent for the Swiss franc over the parity established in May 1971. The Italian and Swedish governments revalued their currencies in terms of dollars by about 7.5 percent. Among the Group of Ten countries, only Canada continued to maintain a floating exchange rate. In making these changes, provision was made for the adoption of margins for exchange rate fluctuations of 2.25 percent above and below the new exchange rates, most of which were maintained on an interim basis in the form of "central" rates, pending formal changes in declared gold parities.

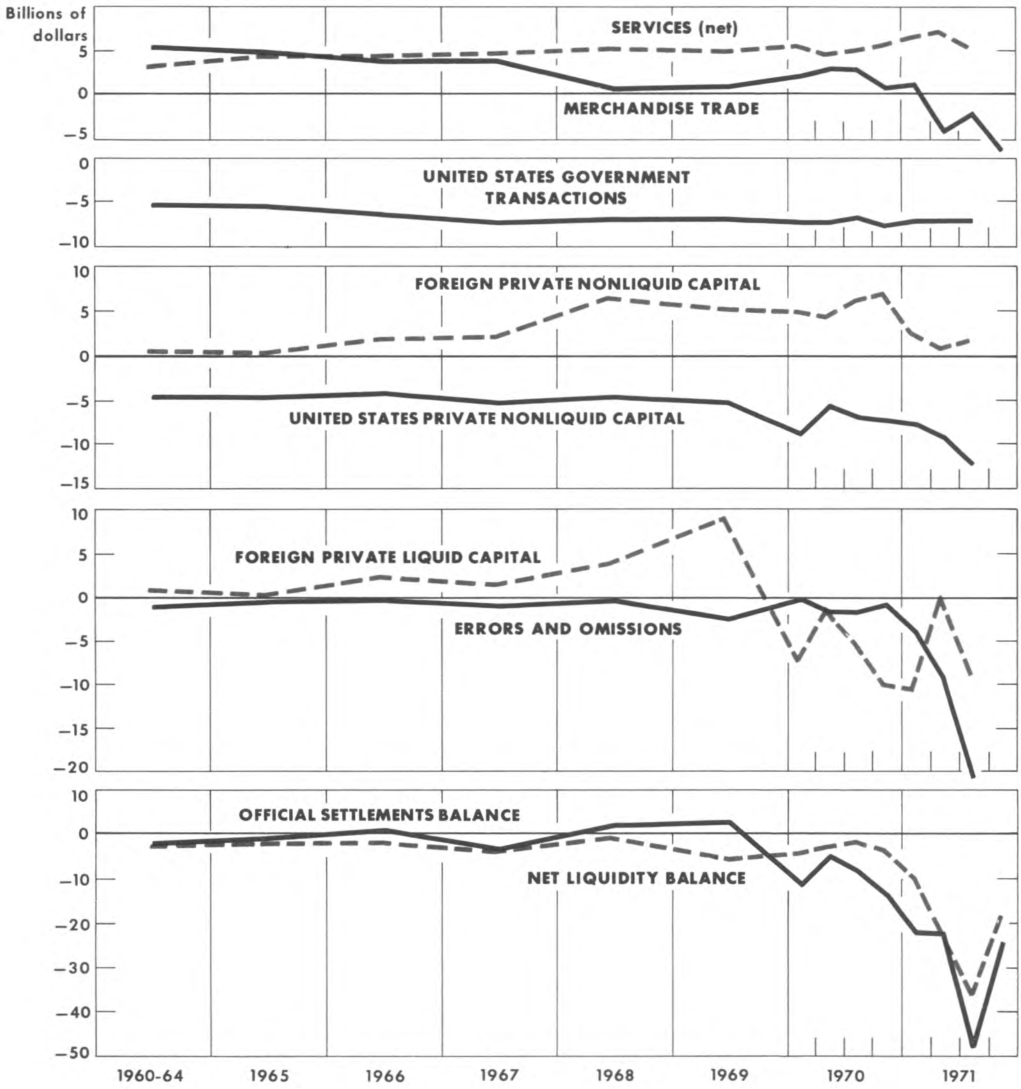
The settlement helped to relieve the extreme uncertainties that had developed over the preceding months. Once the agreement on exchange rates was reached the United States import surcharge was lifted, and the discriminatory "Buy American" provision of the investment tax credit was similarly rescinded. With these changes the risk of retaliatory responses abroad subsided. At about the same time, several foreign governments began to relax the exchange restrictions introduced earlier in the year. Over the long run the exchange rate adjustments, which taken together represent a substantial devaluation of the dollar *vis-à-vis* other major currencies, will undoubtedly lead to a more balanced pattern of international payments. But the crisis left an enormous residue of inconvertible dollar balances with foreign official institutions, and the shape of any future arrangements for the restoration of convertibility remains to be negotiated.

The United States Payments Imbalance

The events of 1971 were the culmination of strains generated by a long history of deficits in the United States balance of payments and by correspondingly large surpluses elsewhere. As the crisis unfolded, however, the imbalance itself became a symptomatic reflection of the turmoil in the exchange markets. The deficit on official settlements, after having reached $4.7 billion in the first quarter of the year, rose to $6.5 billion in the second quarter, and then amid a climatic flight from the dollar soared to $12.7 billion in the third quarter. Even in the closing months of the year, when most foreign currencies were floating or partially insulated from the effects of foreign capital inflows, foreign official dollar gains amounted to $5.7 billion. For the year as a whole, the deficit on official settlements thus came to about $30 billion, an amount larger than all the accumulated deficits of the preceding decade. On most other measures of the United States external accounts, the deterioration was equally serious.

Moreover, the force of the crisis was spread throughout the accounts, as speculative and precautionary adjustments reached the full range of trade and investment decisions in the United States and abroad (see Chart 9). The deterioration of the trade balance, although distorted by the effects of the dock strikes, also reflected leads and lags in commercial transactions, as foreign importers deferred—and domestic importers accelerated—shipments in anticipation of a dollar depreciation *vis-à-vis* other currencies. Similarly, United States-based businesses and other residents with payments due in foreign currencies accelerated those payments to avoid more costly conversions at a later date, while nonresidents attempted to delay dollar payments in the expectation that dollar commitments could be covered at a lower cost in terms of their own currencies. On balance, foreigners reduced their new long-term investments in the United States and increased their outstanding dollar obligations in an effort to reduce or eliminate any positions taken in dollars. At the same time, United States firms transferred large amounts of funds to their overseas affiliates and subsidiaries; early in the year these transfers were motivated mainly by interest rate differentials but later reflected expectations of exchange rate changes. These various responses were reflected in a sharp reduction of net new foreign investment in the United States and a sustained increase in United States long-term investment overseas. An even larger surge in payments took place through channels that escape the reporting procedures and were reflected in an enormous increase in unidentified net payments abroad.

Chart 9. UNITED STATES BALANCE OF PAYMENTS: The crisis was reflected in a massive deterioration in the United States balance of payments in 1971, as the underlying deficit on trade, Government transactions, and long-term private investment transactions was swollen by extraordinarily large outflows of short-term capital.



Annual averages for 1960-64, annual data for 1965-69, and quarterly data for 1970-71, at seasonally adjusted annual rates.

Quite apart from the distortions introduced by exchange rate uncertainties, the underlying deficit in the United States external accounts reached unmanageable proportions in 1971. During the early sixties, the surplus on trade and other current-account transactions was large enough to accommodate transfers of public and private capital abroad without undue strain and without reliance on extensive restrictions on capital outflows. In the latter half of the decade, however, the inflationary pressures that accompanied the escalation of the Vietnam conflict contributed to a relentless deterioration of the trade balance. At the same time, Government spending overseas increased considerably as a result of the United States involvement in southeast Asia, and this contributed to a further deterioration in the underlying balance. Following a brief cyclical improvement in the trade surplus in 1970, the balance gave way to a $2.9 billion deficit in 1971, as imports rose sharply while exports barely increased.

Any lasting improvement in the United States payments position will undoubtedly require a substantial turnabout in the United States trade balance. The realignment of exchange rates will facilitate this recovery, but it does not by any means guarantee a trade surplus large enough to offset outflows on other accounts. If the prospective devaluation of the dollar is to be effective in producing a durable improvement in the United States balance of payments, it must be accompanied by continuing efforts to contain the inflation of domestic costs and prices. Moreover, any lasting improvement in the United States payments position will require other countries to acquiesce in a reduction in their own surpluses. The underlying adjustments in policies that this requires will not be easy. The United States trade deficit, as well as outflows on other accounts, is deeply rooted in a great diversity of political decisions here and abroad. Those decisions, taken over a period of many years, have left the United States and its major trading partners with a very difficult readjustment problem—one that cannot be quickly or painlessly resolved by exchange rate changes alone. A constructive solution to the payments problem, one consistent with the broader interests of the world economy, will entail extended negotiations on a wide range of trade policies, on defense sharing, and on other issues that lie outside the exchange rate field. And it will require continuing and more effective coordination of policies among the major industrial countries if the world economy is to avoid a repetition of the traumatic events of 1971.

THIS BANK'S OPERATIONS

Volume and Trend of the Bank's Operations

The volume of services provided by this Bank expanded further in 1971, as many departments processed an increased flow of transactions. During the year, substantial progress was achieved in implementing a fully automated system for the telegraphic transfer of Government securities and in broadening the scope of the book-entry custody procedure. These programs have been developed over the past few years to solve the problems encountered throughout the financial community, as the volume of securities transactions rose to new levels and threatened to overtax existing facilities. These problems and a sharp rise in thefts of Government securities culminated in the "insurance crisis" of late 1970 and made it especially urgent that automated operations in Government and Federal agency securities be expanded rapidly.

Early in the year, this Bank's Government Securities Clearing Arrangement was coupled with the Federal Reserve System's new communications-computer network at Culpeper, Virginia, linking all Reserve Banks and Branches. Similarly, the Clearing Arrangement, in which all the major New York City banks participate, was strengthened through the installation of high-speed computerized equipment for transferring marketable United States Government securities. The new facilities permitted this Bank to lift the $100,000 minimum for the intracity wire transfers of Government securities among New York City banks participating in the Clearing Arrangement, and the volume of intracity traffic rose sharply during the year. For the whole year the par amount of such transfers jumped to a level of $467.1 billion, more than four times higher than the prior year's volume. The number of securities transfers between this District and other Federal Reserve Districts declined, although the par amount of such transfers rose by $73.3 billion to a level of $225.3 billion.

The removal of several technical obstacles to the use of the book-entry procedure for the custody of Government securities permitted a $44.6 billion increase in the par value of book-entry holdings of such securities at this Bank, raising the total to $141.3 billion by the year-end. The bulk of the increase reflected the growth in the book-entry holdings for foreign monetary and govern-

SOME MEASURES OF THE VOLUME OF OPERATIONS OF
THE FEDERAL RESERVE BANK OF NEW YORK (including Buffalo Branch)

Number of pieces handled (In thousands)*	**1971**	**1970**
Currency received	1,738,273	1,709,975
Coin received†	2,247,294	2,081,501
Gold bars and bags of gold coin	209	297
United States Government checks	73,165	76,613
All other checks‡	951,481	921,103§
Postal money orders	26,327	25,048
Collection items	17,361	17,851§
United States Government coupons paid	2,701	3,185
All other coupons paid	2,619	2,586§
Credits for direct sendings of collection items	206	236
Food stamps redeemed	279,327	127,702§
Issues, redemptions, servicing by fiscal agency departments:		
United States savings bonds and notes	31,225	32,316
All other obligations of the United States	4,758	6,700§
Obligations of Federal agencies	1,483	2,093§
Obligations of international organizations	150	113
Custody of securities:		
Pieces deposited in and withdrawn from unissued stock held by this Bank as fiscal agent	38,255	37,616
Pieces received and delivered for safekeeping accounts	1,009	774
Coupons detached	3,993	4,236
Wire transfers of marketable securities	470	312§
Wire transfers of funds‖	1,856	1,683
Amounts handled (in millions of dollars)		
Discounts and advances	23,365	37,174
Currency received	13,419	12,516
Coin received†	266	249
Gold bars and bags of gold coin	3,000	5,210
United States Government checks	33,242	33,008
All other checks‡	2,475,833	1,944,003§
Postal money orders	697	642
Collection items	3,810	3,467§
United States Government coupons paid	1,580	1,636
All other coupons paid	2,026	1,499§
Credits for direct sendings of collection items	964	710
Food stamps redeemed	444	175§
Issues, redemptions, servicing by fiscal agency departments:		
United States savings bonds and notes	1,761	1,824
All other obligations of the United States	1,376,721	938,042§
Obligations of Federal agencies	69,860	81,509§
Obligations of international organizations	3,383	2,250
Custody of securities:		
Par value of pieces deposited in and withdrawn from unissued stock held by this Bank as fiscal agent	995,994	1,012,877
Par value of pieces received and delivered for safekeeping accounts	792,525	512,358§
Par value of wire transfers of marketable securities¶	710,623	268,483§
Wire transfers of funds‖	5,107,154	4,360,404

* Two or more checks, coupons, etc., handled as a single item are counted as one "piece".
† Excludes shipments of new coin from the Mint.
‡ Includes checks drawn on reserve accounts held at this Bank.
§ Revised.
‖ Excludes Treasury transfers between Federal Reserve Districts.
¶ Total includes denominational exchanges with par value of $18.2 billion in 1971 and $10.2 billion in 1970.

ment authorities. It is notable that $3.5 billion of the book-entry holdings represented securities deposited by nine of the twelve largest New York City banks for their own account and for the accounts of a limited number of their customers. Moreover, many of the legal and operational problems preventing conversion of all securities held by banks were under study or were being resolved.

These improvements, as well as more careful securities-handling practices at many firms, helped reduce exposure of Government securities to theft, and the volume of such losses dropped significantly. The "checklist" procedure, extended in 1970 to all Federal Reserve Bank offices with this Bank acting as the coordinating bank, made a valuable contribution to the recovery of Government securities reported lost or stolen.

Wire service charges on third-party money transfers of $1,000 or over (including charges on odd amounts) were eliminated to encourage commercial banks and their customers to transfer funds by wire rather than through the slower and more cumbersome use of checks. The number of wire transfers increased 10.3 percent in 1971 (excluding transfers between Federal Reserve Districts for Treasury accounts) to a record of 1.9 million transactions. The dollar volume also rose sharply, by 17.1 percent, to a record level of $5,107 billion.

Although the number and dollar volume of all checks processed by this Bank reached record levels in 1971, the growth decelerated somewhat, reflecting the sluggishness of the economic recovery during most of the year and the increased use of credit cards. Total checks processed (other than Government checks) rose 3.3 percent to 951 million, the smallest percentage rise since 1965. In contrast, the dollar volume of these checks expanded by 27.4 percent to a level of $2,476 billion. About 60 percent of this increased volume represented the continuing expansion of large-sized transactions related to the Euro-dollar market and other foreign payments. The number of Government checks paid through this Bank declined 4.5 percent to 73 million, but the dollar volume held steady at $33.2 billion.

Member banks in the Second District reduced their borrowings at the discount window in 1971, reflecting the generally weak demand for loans and the ample supply of funds available in the market during most of the year. Total advances to member banks fell 37.1 percent to $23.4 billion, reducing the volume of borrowings made during the course of the year to a level about 45 percent below the postwar high of $42.5 billion reached in 1969. The number of discounts and advances fell 45.2 percent to 1,234, compared with 2,251 the prior year. Moreover, the percentage of Second District member banks borrowing at the discount window at least once during the year declined to 35.8 percent in 1971 from 43.2 percent in 1970.

Early in the year, this Bank initiated studies of the financial condition of the Lockheed Aircraft Corporation in view of the difficulties that company was experiencing and as part of the Bank's normal responsibilities in appraising the quality of paper presented by member banks at the discount window. Then, as the possibility emerged that Government aid to Lockheed might be forthcoming in the form of loan guarantees, this Bank assisted Treasury officials during their negotiations with Lockheed and several commercial banks in anticipation of the enactment of legislation. In August the Emergency Loan Guarantee Act created the Emergency Loan Guarantee Board which formally designated the Federal Reserve Bank of New York as its fiscal agent in the administration of the loan guarantee to the Lockheed Aircraft Corporation.

The dollar volume of this Bank's fiscal agency operations grew markedly during 1971. The total amount of obligations handled for the United States Government (other than United States savings bonds and notes), Federal agencies, and international organizations increased by more than 41 percent to $1,450 billion. However, the number of certificates handled continued to decline, reaching 6.4 million, down 28.2 percent, as a result of the continuing expansion of the book-entry procedure and the Government Securities Clearing Arrangement.

The growth in staff size slowed down during 1971. The number of officers and employees at the Head Office and the Buffalo Branch totaled 4,779 at the end of the year. This was an increase of 2.1 percent for the year as against a 1970 increase of 7.2 percent.

During 1971, more than 841,000 copies of the Bank's booklets and nearly 3.2 million copies of Bank periodicals were distributed. About 10,078 visitors toured the Bank, and 137 speeches were delivered by members of the Bank's staff.

Total assets held by this Bank for foreign and international accounts soared $29.9 billion during 1971 to a record $68.2 billion. Reflecting the accumulations of dollars by foreign central banks, holdings for foreign accounts swelled $28.1 billion to $56.4 billion, while holdings for international organizations rose $1.8 billion to $11.8 billion. Most of the increase in assets held for foreign and international accounts was in the form of United States Treasury securities, including holdings of marketable issues which rose $16.0 billion to $27.3 billion and of special nonmarketable issues which increased $12.5 billion to $22.8 billion.

Financial Statements

STATEMENT OF CONDITION

In thousands of dollars

Assets	DEC. 31, 1971	DEC. 31, 1970
Gold certificate account	1,957,162	1,942,743
Special Drawing Rights certificate account	93,000	93,000
Federal Reserve notes of other Banks	163,812	186,874
Other cash	21,120	20,419
Total	2,235,094	2,243,036
Advances and discounts	16,750	103,720
Acceptances:		
Bought outright	79,663	57,445
Held under repurchase agreements	180,919	0
United States Government securities:		
Bought outright★	16,714,335	15,844,536
Held under repurchase agreements	1,222,305	0
Federal agency obligations:		
Bought outright	117,495	0
Held under repurchase agreements	101,400	0
Total loans and securities	18,432,867	16,005,701
Other assets:		
Cash items in process of collection	2,921,626	2,810,169
Bank premises	8,280	8,188
All other†	329,686	376,900
Total other assets	3,259,592	3,195,257
Total Assets	**23,927,553**	**21,443,994**

★ Includes securities loaned—fully secured by United States Government securities pledged with the Bank	35,370	31,000

† Includes assets denominated in foreign currencies and IMF gold deposited.

STATEMENT OF CONDITION

In thousands of dollars

Liabilities	DEC. 31, 1971	DEC. 31, 1970
Federal Reserve notes	13,462,157	12,196,484
Deposits:		
Member bank reserve accounts	6,960,448	6,162,144
United States Treasurer—general account	386,977	336,769
Foreign★	87,682	56,232
Other†	850,279	736,528
Total deposits	8,285,386	7,291,673
Other liabilities:		
Deferred availability cash items	1,627,449	1,438,862
All other	166,853	147,395
Total other liabilities	1,794,302	1,586,257
Total Liabilities	**23,541,845**	**21,074,414**
Capital Accounts		
Capital paid in	192,854	184,790
Surplus	192,854	184,790
Total Capital Accounts	**385,708**	**369,580**
Total Liabilities and Capital Accounts	**23,927,553**	**21,443,994**
Contingent liability on acceptances purchased for foreign correspondents‡	66,624	65,993

★ After deducting participations of other Federal Reserve Banks amounting to	206,360	92,000
† Includes IMF gold deposit.		
‡ After deducting participations of other Federal Reserve Banks amounting to	187,861	184,074

STATEMENT OF EARNINGS AND EXPENSES FOR THE CALENDAR YEARS 1971 AND 1970 (In thousands of dollars)

	1971	1970
Total current earnings	959,232	987,142
Net expenses	83,671	69,848
Current net earnings	875,561	917,294
Additions to current net earnings:		
Profit on sales of United States Government securities (net)	26,060	2,073
Profit on foreign exchange transactions (net)	0	918
All other	46	20
Total additions	26,106	3,011
Deductions from current net earnings:		
Loss on foreign exchange transactions (net)	2,152	0
All other	59	94
Total deductions	2,211	94
Net additions	23,895	2,917
Net earnings available for distribution	**899,456**	**920,211**
Dividends paid	11,342	10,953
Payments to United States Treasury (interest on Federal Reserve notes)	880,050	901,017
Transferred to surplus	8,064	8,241

SURPLUS ACCOUNT

	1971	1970
Surplus—beginning of year	184,790	176,549
Transferred from net earnings for year	8,064	8,241
Surplus—end of year	**192,854**	**184,790**

Changes in Membership

During 1971 the total number of member banks of the Federal Reserve System in the Second District decreased from 352 to 340. The net reduction resulted from the merger of fourteen member banks, the conversion of two member banks into nonmember banks, and the organization of four new member banks. The 340 banks represent 76 percent of all commercial banks and trust companies in this District and hold 96 percent of the total assets of all such institutions in the District.

NUMBER OF OPERATING MEMBER AND NONMEMBER BANKS IN SECOND FEDERAL RESERVE DISTRICT AT THE YEAR-END

Exclusive of savings banks, private banks, and industrial banks

	DECEMBER 31, 1971			DECEMBER 31, 1970		
Type of Bank	**Members**	**Non-members**	**Percent members**	**Members**	**Non-members**	**Percent members**
National banks★	244	0	100	252	0	100
State banks and trust companies	96	106	48	100	97	51
Total	**340**	**106**	**76**	**352**	**97**	**78**

★ Includes one national bank located in the Virgin Islands.

CHANGES IN FEDERAL RESERVE MEMBERSHIP IN SECOND DISTRICT DURING 1971

Total membership at beginning of year	**352**
Increases:	
New national banks	4
Decreases:	
Member banks merged into other members	13
Member bank merged into nonmember	1
Member banks converted into nonmembers	2
Total membership at the year-end	**340**

Changes in Directors and Officers

CHANGES IN DIRECTORS. Effective October 1, 1971, the Board of Governors of the Federal Reserve System appointed Alan Pifer a Class C director for the unexpired portion of the term ending December 31, 1973. Mr. Pifer, President of Carnegie Corporation of New York, New York, N. Y., succeeded Whitney M. Young, Jr., who died on March 11, 1971.

In November 1971, W. D. Eberle, a Class B director since September 1970, resigned as a director in view of his appointment as President Nixon's Special Representative for Trade Negotiations.

In December, member banks in Group 2 elected Norman Brassler a Class A director and Frank R. Milliken a Class B director for three-year terms beginning January 1, 1972. Mr. Brassler, Chairman of the Board of New Jersey Bank (National Association), Clifton, N. J., succeeded Charles E. Treman, Jr., President of Tompkins County Trust Company, Ithaca, N. Y., who served as a Class A director for the three-year term that ended December 31, 1971. Mr. Milliken, President of Kennecott Copper Corporation, New York, N. Y., succeeded Milton C. Mumford, Chairman of the Board of Lever Brothers Company, New York, N. Y., who served as a Class B director from January 1966 through December 1971.

Also in December, the Board of Governors of the Federal Reserve System reappointed Roswell L. Gilpatric a Class C director for the three-year term beginning January 1, 1972, and designated him *Chairman* of the board of directors and *Federal Reserve Agent* for the year 1972. Mr. Gilpatric, a partner in the New York law firm of Cravath, Swaine & Moore, has been serving as a Class C director since January 1969 and served as *Deputy Chairman* during 1971. As *Chairman* and *Federal Reserve Agent,* he succeeded Albert L. Nickerson, former Chairman of the Board of Mobil Oil Corporation, New York, N. Y., who resigned as a Class C director effective December 31, 1971. Mr. Nickerson served as a Class B director from August 1961 through December 1966 and as a Class C director and *Chairman* and *Federal Reserve Agent* since January 1969.

At the same time, the Board of Governors appointed Ellison L. Hazard a Class C director for the unexpired portion of the term ending December 31, 1972, and also appointed him *Deputy Chairman* for the year 1972. Mr. Hazard, Chairman of the Executive Committee of Continental Can Company, Inc., New York, N. Y., succeeded Mr. Nickerson as a Class C director and Mr. Gilpatric as *Deputy Chairman.*

Buffalo Branch. In December, the Board of Governors reappointed Norman F. Beach a director of the Buffalo Branch for a three-year term beginning January 1, 1972. Mr. Beach, Vice President of Eastman Kodak Company, Rochester, N. Y., has been serving as a director of the Branch since January 1968 and served as *Chairman* of the Branch board during 1971.

Also in December, the board of directors of this Bank appointed Theodore M. McClure a director of the Buffalo Branch for a three-year term beginning January 1, 1972. Mr. McClure is President of The Citizens National Bank and Trust Company, Wellsville, N. Y.; on the Branch board, he succeeded James I. Wyckoff, Chairman of the Board of The National Bank of Geneva, Geneva, N. Y., who served on the Branch board from January 1969 through December 1971. At the same time, the board of directors of this Bank designated Morton Adams as *Chairman* of the Branch board for the year 1972. Mr. Adams, who is General Manager of Pro-Fac Cooperative, Inc., Rochester, N. Y., has been a Branch director since January 1970.

CHANGES IN OFFICERS. Since January 1971, two officers have retired and two have resigned:

Donald C. Niles, Assistant Vice President assigned to Administrative Services (Computer Operations, Computer Planning, and Computer Support Departments), retired on April 1, 1971. Mr. Niles joined the Bank's staff in February 1946 and became an officer in April 1952.

Frederick W. Deming, Manager, Securities Department, resigned effective September 30, 1971 to accept a position as Vice President and Senior Economist at Chemical Bank. Mr. Deming joined the Bank's staff in September 1961 and became an officer in January 1966. From February 1968 until his resignation, he was on a leave of absence, serving consecutively in various capacities with the President's Council of Economic Advisers, a special Congressional commission on mortgage interest rates, and the United States Department of Housing and Urban Development.

Edward J. Geng, Assistant Vice President assigned to Open Market Operations and Treasury Issues, resigned effective October 1, 1971 to become a Vice President of Paine, Webber, Jackson & Curtis Incorporated. Mr. Geng joined the Bank's staff in February 1957 and became an officer in July 1964. He resigned from the Bank in November 1969 to accept appointment as Special Assistant to the Secretary of the Treasury for Debt Management, returning to the Bank in November 1970 as Assistant Vice President assigned to Open Market Operations and Treasury Issues.

Marcus A. Harris, Senior Vice President, retired on special service retirement effective March 1, 1972, after completing almost forty years of service with the Bank. Mr. Harris joined the Bank's staff in June 1932 and became an officer in November 1939. He was the officer in charge of Cash and Collections from March 1959 through November 1971, as Vice President and beginning January 1969 as Senior Vice President.

The following additional changes in the official staff, including the appointment of four new officers, have been made since January 1971:

A. Marshall Puckett, formerly Adviser, was appointed Assistant Vice President on March 18, 1971, continuing in Research and Statistics.

Frederick C. Schadrack, Jr., formerly Assistant Vice President, was appointed Adviser on March 18, 1971, continuing in Research and Statistics.

Theodore N. Oppenheimer, formerly Special Assistant, Secretary's Office, was appointed an officer with the title of Assistant Secretary on July 1, 1971.

Thomas O. Waage, Vice President, was assigned to Cash and Collections, effective October 1, 1971, under Marcus A. Harris, Senior Vice President, and his assignment to Foreign was terminated on that date. Effective December 1, Mr. Waage was assigned as the officer in charge of Cash and Collections, succeeding Mr. Harris who had left the Bank on pre-retirement vacation leave. Mr. Waage was appointed Senior Vice President on January 6, 1972, continuing as the officer in charge of Cash and Collections; his assignment to Public Information was terminated effective January 7, 1972.

Richard A. Debs, Vice President, was assigned temporarily to Open Market Operations and Treasury Issues effective January 7, 1972, continuing as the officer in charge of Government Bond and Safekeeping of Securities. Mr. Debs' assignment to Loans and Credits was terminated effective January 7, 1972.

Leonard Lapidus, formerly Assistant Vice President, was appointed Vice President on January 6, 1972 and assigned responsibility for Public Information.

James O. Aston, formerly Manager, was appointed Assistant Vice President, and Assistant Secretary, on January 6, 1972. As Assistant Vice President, Mr. Aston was assigned to Cash and Collections, with responsibility for the Collection Department and with special concern for implementing steps to improve the payments mechanism in this District.

Robert L. Cooper, formerly Manager, was appointed Assistant Vice President on January 6, 1972 and assigned to Open Market Operations and Treasury Issues.

The responsibility of Karl L. Ege, Assistant Vice President, for the Collection Department was terminated effective January 7, 1972. Mr. Ege's responsibility for the Check Adjustment and Return Items Department and the Check Processing Department was continued.

Ralph H. Gelder, formerly Manager, was appointed Assistant Vice President on January 6, 1972 and assigned to Bank Supervision and Relations, with responsibility for the Banking Studies Department and the Bank Reports and Analysis Department.

Richard H. Hoenig, formerly Manager, was appointed Assistant Vice President on January 6, 1972 and assigned to Public Information.

Benedict Rafanello, formerly Manager, was appointed Assistant Vice President on January 6, 1972 and assigned to Bank Supervision and Relations, with responsibility for the Bank Applications Department.

Robert C. Thoman, Assistant Vice President, was assigned responsibility for the Bank Examinations Department effective January 7, 1972, and his responsibility for the Bank Relations Department was continued. Effective the same date, Mr. Thoman's responsibility for the Bank Applications Department was terminated.

H. David Willey, formerly Manager, and Assistant Secretary, was appointed Assistant Vice President on January 6, 1972 and assigned to Loans and Credits.

Leonard I. Bennetts, Manager, formerly assigned to the Check Processing Department, was assigned to the Check Adjustment and Return Items Department effective January 7, 1972.

Eugene P. Emond, formerly Supervising Examiner in the Bank Examinations Department, was appointed an officer with the title of Manager on January 6, 1972 and assigned to the Credit and Discount Department.

Leon R. Holmes, formerly Chief of the Wire Transfer Division, Collection Department, was appointed an officer with the title of Manager on January 6, 1972 and assigned to the Cash Custody Department and the Collection Department.

Leon Korobow, formerly Chief of the Financial Statistics Division, Statistics Department, was appointed an officer with the title of Manager on January 6, 1972 and assigned to the Banking Studies Department.

Joseph M. O'Connell, Manager, formerly assigned to the Check Adjustment and Return Items Department, was assigned to the Check Processing Department effective January 7, 1972, with primary responsibility for the operations of the day force of the Check Processing Division (Day) of that Department.

Irwin D. Sandberg, formerly Securities Trading Officer, was appointed Manager on January 6, 1972 and assigned to the Acceptance Department and the Securities Department.

MEMBER OF FEDERAL ADVISORY COUNCIL—1972. The board of directors of this Bank selected David Rockefeller, Chairman of the Board of The Chase Manhattan Bank (National Association), New York, N. Y., to serve during 1972 as the member of the Federal Advisory Council representing the Second Federal Reserve District. On the Council, Mr. Rockefeller succeeded John M. Meyer, Jr., formerly Chairman of the Board of Morgan Guaranty Trust Company of New York, New York, N. Y., who was this District's member in 1970 and 1971.

Directors of the Federal Reserve Bank of New York

DIRECTORS	*Term expires Dec. 31*	*Class*	*Group*
WILLIAM S. RENCHARD Chairman of the Board, Chemical Bank, New York, N. Y.	1973	A	1
NORMAN BRASSLER Chairman of the Board, New Jersey Bank (National Association), Clifton, N. J.	1974	A	2
ARTHUR S. HAMLIN President, The Canandaigua National Bank and Trust Company, Canandaigua, N. Y.	1972	A	3
VACANCY	1973	B	1
FRANK R. MILLIKEN President, Kennecott Copper Corporation, New York, N. Y.	1974	B	2
MAURICE R. FORMAN Chairman of the Board, B. Forman Co., Inc., Rochester, N. Y.	1972	B	3
ROSWELL L. GILPATRIC, *Chairman, and Federal Reserve Agent* Partner, Cravath, Swaine & Moore, Attorneys, New York, N. Y.	1974	C	
ELLISON L. HAZARD, *Deputy Chairman* Chairman of the Executive Committee, Continental Can Company, Inc., New York, N. Y.	1972	C	
ALAN PIFER President, Carnegie Corporation of New York, New York, N. Y.	1973	C	

DIRECTORS—BUFFALO BRANCH

MORTON ADAMS, *Chairman* General Manager, Pro-Fac Cooperative, Inc., Rochester, N. Y.	1972
DAVID J. LAUB Chairman of the Board, Marine Midland Bank—Western, Buffalo, N. Y.	1972
WILLIAM B. ANDERSON President, The First National Bank of Jamestown, Jamestown, N. Y.	1973
ANGELO A. COSTANZA President, Central Trust Company Rochester N. Y., Rochester, N. Y.	1973
RUPERT WARREN President, Trico Products Corporation, Buffalo, N. Y.	1973
NORMAN F. BEACH Vice President, Eastman Kodak Company, Rochester, N. Y.	1974
THEODORE M. MCCLURE President, The Citizens National Bank and Trust Company, Wellsville, N. Y.	1974

MEMBER OF FEDERAL ADVISORY COUNCIL—1972

DAVID ROCKEFELLER Chairman of the Board, The Chase Manhattan Bank (National Association), New York, N. Y.	1972

Officers of the Federal Reserve Bank of New York

ALFRED HAYES, *President*
WILLIAM F. TREIBER, *First Vice President*

CHARLES A. COOMBS, *Senior Vice President*
ALAN R. HOLMES, *Senior Vice President*
ROBERT G. LINK, *Senior Vice President*
THOMAS O. WAAGE, *Senior Vice President*

DAVID E. BODNER, *Vice President*
WILLIAM H. BRAUN, Jr., *Vice President*
JOHN J. CLARKE, *Vice President and Special Legal Adviser*
RICHARD A. DEBS, *Vice President*
PETER FOUSEK, *Vice President*
GEORGE GARVY, *Economic Adviser*
EDWARD G. GUY, *Vice President and General Counsel*
JOHN T. KEANE, *Vice President*
LEONARD LAPIDUS, *Vice President*
SPENCER S. MARSH, Jr., *Market Adviser*
FRED W. PIDERIT, Jr., *Vice President*
EVERETT B. POST, *Vice President*
PETER D. STERNLIGHT, *Vice President*
THOMAS M. TIMLEN, Jr., *Vice President*

THOMAS C. SLOANE, *Deputy General Counsel*

JAMES O. ASTON, *Assistant Vice President, and Assistant Secretary*
A. THOMAS COMBADER, *Assistant Vice President*
ROBERT L. COOPER, *Assistant Vice President*
ROBERT J. CROWLEY, *Assistant Vice President*
HOWARD F. CRUMB, *Assistant Vice President*
RICHARD G. DAVIS, *Adviser*
KARL L. EGE, *Assistant Vice President*
MARTIN FRENCH, *Assistant Vice President*
RALPH H. GELDER, *Assistant Vice President*
RICHARD H. HOENIG, *Assistant Vice President*
PETER P. LANG, *Adviser*
MADELINE H. MCWHINNEY, *Assistant Vice President*
PAUL MEEK, *Assistant Vice President*
SCOTT E. PARDEE, *Assistant Vice President*
CHARLES R. PRICHER, *Assistant Vice President*
A. MARSHALL PUCKETT, *Assistant Vice President*
BENEDICT RAFANELLO, *Assistant Vice President*
WALTER S. RUSHMORE, *Assistant Vice President*
FREDERICK C. SCHADRACK, Jr., *Adviser*
WILLIAM M. SCHULTZ, *Assistant Vice President*
FREDERICK L. SMEDLEY, *Assistant Vice President*
ROBERT C. THOMAN, *Assistant Vice President*
PHILIP VAN ORMAN, *Assistant Vice President*
H. DAVID WILLEY, *Assistant Vice President*
ROBERT YOUNG, Jr., *Assistant General Counsel*

PAUL AIKEN, *Manager, Computer Support Department*
BRUCE G. ALEXANDER, *Manager, Personnel Department*
IRVING M. AUERBACH, *Manager, Statistics Department*
LEONARD I. BENNETTS, *Manager, Check Adjustment and Return Items Department*
ALLEN R. BIVENS, *Assistant Counsel*
JAMES H. BOOTH, *Manager, Bank Reports and Analysis Department*
ARMOND J. BRAIGER, *Manager, Savings Bond Department*
LOUIS J. BRENDEL, *Manager, Planning Department*
JOHN CHOWANSKY, *Manager, Management Information Department*
LOUIS J. CONROY, *Manager, Service Department*
RICHARD D. COOPERSMITH, *Assistant Counsel*
JOSEPH R. COYLE, *Securities Trading Officer*

Officers *(Continued)*

Adam R. Dick,
Manager, Bank Relations Department

Matthew C. Drexler,
Manager, Building Operating Department

Edna E. Ehrlich,
Senior Economist

Eugene P. Emond,
Manager, Credit and Discount Department

Chester B. Feldberg,
Secretary, and Assistant Counsel

Frederick L. Frey,
Chief Examiner

Gerald Hayden,
Manager, Computer Planning Department

Matthew J. Hoey,
Manager, Government Bond and Safekeeping Department

Leon R. Holmes,
Manager, Cash Custody Department, and Manager, Collection Department

John C. Houhoulis,
Manager, Consumer Information and Securities Regulations Department, and Manager, Payment Systems Department

Whitney R. Irwin,
Manager, Cash Department

Bernard J. Jackson,
Manager, Foreign Department

Edward F. Kipfstuhl,
Manager, Foreign Banking Regulations Department

Thomas P. Kipp,
Manager, Check Processing Department

Fred H. Klopstock,
Manager, International Research Department

Leon Korobow,
Manager, Banking Studies Department

Ronald E. Long,
Manager, Accounting Department

Joseph M. O'Connell,
Manager, Check Processing Department

James H. Oltman,
Assistant Counsel

Theodore N. Oppenheimer,
Assistant Secretary

Edwin R. Powers,
Manager, Computer Operations Department

Leopold S. Rassnick,
Assistant Counsel

Mary J. Rodgers,
Assistant Counsel

Francis H. Rohrbach,
Manager, Personnel Department

Edwin S. Rothman,
Manager, Foreign Department

Herbert H. Ruess,
Manager, Credit and Discount Department

Irwin D. Sandberg,
Manager, Acceptance Department, and Manager, Securities Department

Ralph C. Schindler,
Research Computer Officer

Benjamin Stackhouse,
Manager, Bank Applications Department

Aloysius J. Stanton,
Manager, Security Custody Department

Rudolf Thunberg,
Manager, Domestic Research Department

Ruth Ann Tyler,
Manager, Personnel Department

Richard Vollkommer,
Manager, Government Bond and Safekeeping Department

William M. Walsh,
Manager, Research Computer Department

William H. Wetendorf,
Manager, Protection Department

George C. Smith, *General Auditor*
John E. Flanagan, *Assistant General Auditor*

OFFICERS — BUFFALO BRANCH

Angus A. MacInnes, Jr., *Vice President*
Ronald B. Gray, *Assistant Vice President and Cashier*

Harry A. Curth, Jr., *Assistant Cashier*
Gerald H. Greene, *Assistant Cashier*
Arthur A. Randall, *Assistant Cashier*

THE SECOND FEDERAL RESERVE DISTRICT