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Treasury and Federal Reserve Foreign Exchange Operations*

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The major development in the exchange markets during the period under review was the surging wave of speculation last fall on a simultaneous revaluation of the German mark and devaluation of the French franc and possibly other currencies. Between late August and the Bonn conference in November, the German Federal Bank was swamped by record gross market purchases of more than \$4 billion. Over the same period, the Bank of France and the Bank of England suffered reserve losses, largely attributable to speculation, of over \$2 billion. The flood of money across the exchanges, probably the largest in international financial history, was rooted in national currency problems rather than basic flaws in the international financial system. The extraordinary competitive strength of German exports, the struggle of France to restabilize the franc after the "events of May", the lagging recovery of sterling after the devaluation of November 1967, and, more generally, concern over the erosion by inflation of the value of the dollar—these and other fears had kept the exchange markets in a state of continuous anxiety and vulnerability to any persuasive rumor. Thus the speculative rush into marks in late August and again in November 1968 seems to have been triggered not by any special event, but rather by a sudden boiling-up of rumors of an imminent intergovernmental agreement on a realignment of the mark and other currency parities. The market accordingly rushed to hedge against what seemed to be a near-term risk until a number of major markets were closed during the emergency conference at

Bonn of the finance ministers and central bank governors of the Group of Ten.

While the Bonn conference in itself did not fully clear the air, market apprehension was immediately relieved by the categorical assertion by all elements of the German coalition government that the mark would not be revalued and that adjustment of the foreign trade balance would instead be sought via tax measures. Similarly, market fears of a devaluation of the French franc also receded as the French government, on the day after the Bonn conference, equally categorically asserted its determination to hold to the present parity and to introduce changes in taxation and stringent exchange controls to protect the franc until more basic policy measures restored a natural equilibrium. The British government simultaneously took forceful action to restrain internal demand which had been eroding much of the benefit anticipated from the November 1967 devaluation of sterling. Finally, during the Bonn conference, the central bank governors quickly put together a new package of credits totaling \$2 billion on behalf of the Bank of France, thus providing further convincing evidence of the solidarity of the major trading countries against any threat of breakdown in the existing international financial system.

With this clarification of official intentions, the speculative fever abruptly subsided. Encouraged by unusually high rates in the Euro-dollar market, favorable terms on market swaps provided by the German Federal Bank, and outright forward mark cover initially offered by both the German Federal Bank and the Federal Reserve, massive return flows of funds from Germany continued throughout the winter months, and by early March 1969 all the funds taken in by the German Federal Bank between late August and the Bonn conference had been withdrawn or recycled into the international money markets. The Bank of France succeeded in recovering a substantial portion of

* This report, covering the period September 1968 to March 1969, is the fourteenth in a series of reports by the Senior Vice President in charge of the Foreign function of the Federal Reserve Bank of New York and Special Manager, System Open Market Account. The Bank acts as agent for both the Treasury and Federal Reserve System in the conduct of foreign exchange operations.

the reserves lost during the fall months, while the pound sterling showed a healthier tone with sizable dollar gains by the Bank of England appearing after the turn of the year.

Since the end of the last war, the monetary authorities of the major industrial countries have been confronted with a number of speculative storms which may well recur over the years to come as one country or another drifts into disequilibrium. But there is no reason why trouble at any one point in the network of currency parities should trigger a chain reaction of competitive devaluations or resort to floating rates. The Bonn communiqué noted that "... international monetary stability is the joint responsibility of all countries in the international economic community". The rules of the game agreed upon at Bretton Woods were designed to provide, and do provide, an effective safeguard against the competitive devaluations of the thirties, while the development of central bank and inter-governmental cooperation at Basle and in the Group of Ten has further strongly reinforced the ability of the major trading nations to prevent any accidental collapse of exist-

ing monetary arrangements. These countries have in their hands all the authority, the financial resources, and the facilities for immediate communication and consultation required to protect the international financial system against the risk of a national currency crisis escalating into a worldwide financial explosion.

Illustrative of the determination of the central banks to deal with the speculative risks inherent in all free markets was the response of the central bank governors meeting at Basle to their undertaking, as noted in the Bonn communiqué, to "... examine new central bank arrangements to alleviate the impact on reserves of speculative movements". The conclusions of the governors' study, as communicated to Minister Schiller, Chairman of the Ministers and Governors of the Group of Ten, noted that "... facilities between central banks, or with the BIS, have been established extremely quickly in case of need. If, at any time in the future, it appears that new arrangements are needed in order to cope with an unusually large movement of speculative funds, the central banks of the group declare themselves ready to meet together immediately, at the request of the President of the BIS, to arrange such additional facilities as the group may judge appropriate." The governors further expressed their belief that "... in any new group arrangement designed to recycle speculative flows, both the shares of the participants and the timing of drawings should reflect the direction of the flows involved. Thus, central banks that were receiving funds at the time could accept proportionately larger shares in the arrangement and/or they could agree to be drawn on first. Central banks that were drawn on and were not gaining reserves at the time should be afforded refinancing facilities for the period of the drawing from other central banks that were gaining reserves at the time."

Among other important developments, the Federal Reserve swap network was further increased to \$10,505 million (see Table I). The System's swap line with the Bank of France was raised by \$600 million in July and by a further \$300 million in November, to a total of \$1 billion, as the Federal Reserve participated in international credit packages for France. In October, the facility with the Bank of Italy was also raised to \$1 billion, an increase of \$250 million, bringing it into line with other major reciprocal currency arrangements.

By midsummer 1968, the Federal Reserve had liquidated its \$1.8 billion of swap commitments outstanding at the beginning of the year, and shortly thereafter the System and the Treasury had cleared away all forward market commitments originally undertaken in late 1967 and March 1968. (See Table II for the System's swap operations since the beginning of 1968.) In late August this Bank, act-

Table I
FEDERAL RESERVE RECIPROCAL CURRENCY ARRANGEMENTS
March 10, 1969
In millions of dollars

Institution	Amount of facility
Austrian National Bank.....	100
National Bank of Belgium.....	225
Bank of Canada.....	1,000
National Bank of Denmark.....	100
Bank of England.....	2,000
Bank of France.....	1,000*
German Federal Bank.....	1,000
Bank of Italy.....	1,000†
Bank of Japan.....	1,000
Bank of Mexico.....	130
Netherlands Bank.....	400
Bank of Norway.....	100
Bank of Sweden.....	250
Swiss National Bank.....	600
Bank for International Settlements:	
Swiss francs-dollars.....	600
Other authorized European currencies-dollars.....	1,000
Total.....	10,505

* The facility with the Bank of France was increased by \$300 million effective November 25, 1968.

† The facility with the Bank of Italy was increased by \$250 million effective October 10, 1968.

Table II
FEDERAL RESERVE SYSTEM DRAWINGS AND REPAYMENTS
UNDER ITS RECIPROCAL CREDIT ARRANGEMENTS

In millions of dollars equivalent

Transactions with	System swap commitments on January 1, 1968	Drawings (+) or repayments (—)					System swap commitments on March 10, 1969
		1968				1969	
		I	II	III	IV	January 1-March 10	
National Bank of Belgium.....	105.8	{ + 53.1 — 88.8	{ + 54.0 — 124.1				
German Federal Bank.....	350.0	{ + 300.0 — 350.0	— 300.0		+ 112.1	— 112.1	
Bank of Italy.....	500.0	— 175.0	{ + 175.0 — 311.0	— 189.0			
Netherlands Bank.....	170.0	{ + 15.0 — 120.0	— 65.0				
Swiss National Bank.....	250.0	— 173.0	{ + 73.0 — 15.0	{ + 145.0 — 160.0	{ + 280.0 — 80.0	— 280.0	40.0
Bank for International Settlements.....	400.0*	— 345.0	— 55.0				
Total	1,775.8	{ + 368.1 — 1,251.8	{ + 302.0 — 870.1	{ + 145.0 — 349.0	{ + 392.1 — 80.0	— 392.1	40.0

* System drawings in Swiss francs.

ing for the Federal Reserve and the Treasury, reentered the forward market in German marks for the first time since 1961, supplying \$33.8 million of forward marks to the New York market in support of much larger market swap operations by the German Federal Bank in Frankfurt; the forward commitments of the United States to the market were fully liquidated by the end of the year. In November, during the phase of acute speculative demand for marks, the Federal Reserve reactivated its swap line with the German Federal Bank to finance \$40 million equivalent of spot sales in the New York market. After the Bonn meeting, the System once again sold marks forward in New York and covered them with a further \$72.1 million equivalent of swap drawings. These System obligations totaling \$112.1 million equivalent also were fully liquidated as the speculative fever abated and funds flowed from Germany. In addition, Federal Reserve swap commitments in Swiss francs rose to \$320 million in late November, but the System was able to reduce its obligation to \$40 million equivalent by the end of February. As of March 10, the Swiss franc drawings were the only outstanding Federal Reserve commitments under all swap arrangements.

Foreign central banks and the Bank for International Settlements (BIS) continued to make heavy use of their swap lines with borrowings of \$1.7 billion outstanding at the end of 1968 (see Table III). The Bank of England

reactivated its facility in July after having repaid all its earlier outstanding swap debt; by the end of November its drawings on the System totaled \$1,150 million. Drawings by the Bank of France reached a peak of \$611 million by late November, but these obligations were reduced to \$306 million by early March. By the end of October, drawings by the National Bank of Belgium rose to \$120.5 million, but nearly all these drawings had been repaid by late February. When Euro-dollar rates rose in December, the BIS placed a total of \$80 million drawn from the Federal Reserve to minimize any immediate pressures on sterling. These drawings were repaid in January. In smaller operations, the National Bank of Denmark drew \$25 million in January. On the other hand, the Netherlands Bank liquidated an outstanding \$29.8 million commitment to the System in October, placing its \$400 million facility on a fully standby basis. Overall, credits extended under the reciprocal currency arrangements since their inception in March 1962 total \$17.6 billion, of which \$6.3 billion has been drawn by the System and \$11.3 billion by foreign central banks and the BIS.

Since February 1964, the United States has drawn a number of times on its gold tranche with the International Monetary Fund (IMF), on some occasions in conjunction with Fund repayments by other countries and on others to settle United States foreign currency commitments. United States repurchase obligations to the IMF reached a peak

of \$964 million by December 1966. Subsequent drawings of dollars by other countries reduced this obligation to \$284.3 million by late 1968. In November and December 1968, the Treasury voluntarily liquidated this obligation, using Netherlands guilders, Belgian francs, and Italian lire, thereby fully reconstituting the United States gold tranche of \$1,290 million with the IMF.

GERMAN MARK

Germany recorded large monthly trade surpluses throughout 1968, but for most of the year the balance of payments was roughly in equilibrium as there were offsetting capital outflows facilitated by the official policy of monetary ease. In the exchange markets, however, attention tended to focus on the large trade surpluses which were interpreted as evidence that the German economy had developed a wide competitive advantage. Consequently, there were frequent rumors of an imminent revaluation of the mark, and on several occasions these set off vast shifts of funds into Germany. German authorities repeatedly denied that any revaluation was in the offing, and on the eve of the Bonn conference took strong measures to reduce the trade surplus and discourage the inflow of hot money. The German Federal Bank met each inflow of funds with vigor-

ous exchange market operations and over the course of the fall and early winter months succeeded in pushing out all its huge dollar intake. Thus by February 1969 the spot mark was once again well below par, as it had been last summer before the speculation came to a head.

The first major wave of revaluation rumors occurred toward the end of August 1968 and touched off heavy speculative demand for marks. Within days the spot mark had risen virtually to its ceiling (see Chart I), and the German Federal Bank had begun to take in huge amounts of dollars. The bank's market purchases amounted to \$1.7 billion in the period August 27-September 6. Some of the inflow represented conversions of sterling and French francs, but a large part came from the Euro-dollar market. From the outset, the Federal Bank moved to neutralize the potentially disruptive effect of these inflows, as it had in the past, by making available dollar-mark swaps at rates that provided a sizable incentive to German banks to channel the funds to the Euro-dollar market. The United States authorities assisted these efforts by selling some \$33.8 million equivalent of marks in the forward market in New York. After the monthly central bank meeting in Basle on the weekend of September 7-8, the demand for marks let up as speculative influences receded. The German Federal Bank continued with its swap sales,

Table III
DRAWINGS AND REPAYMENTS BY FOREIGN CENTRAL BANKS
AND THE BANK FOR INTERNATIONAL SETTLEMENTS
UNDER RECIPROCAL CURRENCY ARRANGEMENTS

In millions of dollars

Banks committed to Federal Reserve System	Commitments to System on January 1, 1968	Drawings (+) or Repayments (—)				Commitments to System on December 31, 1968
		1968				
		I	II	III	IV	
National Bank of Belgium.....	1,050.0	+ 250	— 125	{ + 30 — 20	{ + 180.5 — 183.0	7.5
Bank of Canada.....				— 125		
National Bank of Denmark.....				+ 25	— 25	
Bank of England.....				+ 50	{ + 545 — 1,645	
Bank of France.....	346.0	{ + 66 — 412	+ 100	{ + 390 — 40	{ + 275 — 295	430.0
Netherlands Bank.....			+ 54.7	— 24.9	— 29.8	
Bank for International Settlements (against German marks)...			{ + 306 — 195	{ + 145 — 256	{ + 126 — 46	80.0
Total.....	1,396.0	{ + 366 — 412	{ + 1,030.7 — 1,965.0	{ + 1,165.0 — 690.9	{ + 1,431.5 — 653.8	1,667.5

Table IV
OUTSTANDING UNITED STATES TREASURY SECURITIES
FOREIGN CURRENCY SERIES
 In millions of dollars equivalent

Issued to	Amount outstanding on January 1, 1968	Issues or redemptions (—)					Amount outstanding on March 10, 1969
		1968				January 1- March 10, 1969	
		I	II	III	IV		
Austrian National Bank.....	50.3						50.3
National Bank of Belgium.....	60.4				— 60.4		0
German Federal Bank.....	601.2	124.9	125.5	{ — 50.3 124.4	250.8	— 50.0*	1,125.7
German banks	0		125.1				125.1
Bank of Italy.....	124.8				100.2		225.6
Netherlands Bank.....	0	65.7			— 65.7		0
Swiss National Bank.....	210.7	100.1		133.7		25.4	469.8
Bank for International Settlements†.....	152.2			54.7		49.7	257.0
Total.....	1,199.6	290.7	250.6	262.5	224.9	25.1	2,253.5

Note: Discrepancies in totals are due to valuation adjustments, refundings, and rounding.

* In addition, on January 16, 1969 the United States Treasury issued a medium-term security in place of a certificate of indebtedness purchased by the German Federal Bank on December 27, 1968.

† Denominated in Swiss francs.

so that by the end of September the bank had returned to the market virtually all it had taken in from the earlier speculative inflow.

The market atmosphere remained quiet through most of October, encouraging renewed capital outflows and consequent substantial sales of dollars by the German Federal Bank. As the spot rate declined, the Federal Reserve Bank of New York made modest purchases of marks for Treasury account, and the System and the Treasury paid off maturing August-September forward sale commitments.

Market expectations of an eventual revaluation of the mark persisted, however, and by the end of October this undercurrent was reflected in a strengthening of the spot rate. In early November, rumors of an imminent revaluation once again swept the exchanges, triggering a huge demand for marks, and the German Federal Bank purchased nearly \$2 billion by November 15. Although the momentum behind the speculation was being generated mainly in Europe, the heavy demand reflected purchases by United States firms as well. To meet some of the demand in New York, the Federal Reserve Bank of New

York sold \$47 million of marks on behalf of the Federal Reserve. The System sales were covered through a \$40 million drawing on the swap line with the German Federal Bank and from balances.

Once again the German Federal Bank acted to recycle the funds by concluding market swap sales of dollars at attractive rates. After swapping out some \$1 billion of its spot gains, however, the Federal Bank then took action to curb the tendency of German banks to resell the spot dollar proceeds of the swaps rather than hold the funds in dollar investments, thereby in effect obtaining outright forward cover as a result of the swaps. The authorities indicated that they would conclude further swap sales of dollars only if the banks invested the spot dollar proceeds in United States Treasury bills. The German banks and their customers had become mainly interested in acquiring outright forward cover in marks, and they chose not to engage in swap transactions with the Federal Bank on these terms; instead, they bid for spot marks and sought forward cover through swaps in the market.

Speculative buying of marks continued with full fury

on Monday, November 18, when the regular monthly meeting of central bankers at Basle ended without the official statement that the market expected, and speculators remained convinced that the next move would be an upward revaluation of the mark. In two days through November 19 the Federal Bank purchased \$850 million, bringing gross purchases in November to more than \$2.8 billion. On November 19, in an effort to calm the market, the German authorities issued a formal communiqué stating that the mark would not be revalued and, to reduce the German trade surplus, announced new tax measures that would raise the price of exports while lowering import costs. After a holiday on November 20, trading in Germany was effectively suspended for the next two days before the weekend as the finance ministers and central bank governors of the Group of Ten nations met in emergency session in Bonn. On November 22, the Group of Ten nations issued a communiqué fully supporting the German government's decision to stand firm at the existing mark parity, its new tax measures, and the Federal Bank's decision to impose 100 percent reserve requirements on new foreign-owned mark deposits held in German banks. The monetary move, which was designed to discourage further speculative inflows, reinforced the ban on interest payments on foreign-owned sight or time deposits denominated in marks already in effect. The German authorities also initiated legislation authorizing the licensing of mark deposits by foreigners with German banks.

When trading resumed in Frankfurt on November 25, substantial amounts of funds began to flow from Germany as market expectations of a revaluation receded and long positions were liquidated. To encourage these and subsequent reflows, the Federal Bank offered outright forward cover back into marks at a 3 percent per annum premium for three-month maturities. The Federal Reserve backed up the German Federal Bank's operations, offering outright cover to the market at the same rates for the same maturities. By the end of November the Federal Bank had resold \$880 million spot and sold \$246 million of outright forward marks. The System's outright forward sales reached \$72.5 million equivalent, all covered by swap drawings which raised Federal Reserve swap debt in marks to \$112.1 million equivalent.

On December 2 the Federal Bank and the Federal Reserve discontinued outright sales of forward marks, concluding that they had served their purpose of encouraging capital outflows and assuring the market that there would be no parity change. The Federal Bank offered instead to do swaps with its banks at improved rates and for a wider range of maturities. Earlier the authorities had dropped their requirement that the proceeds of the swaps be in-

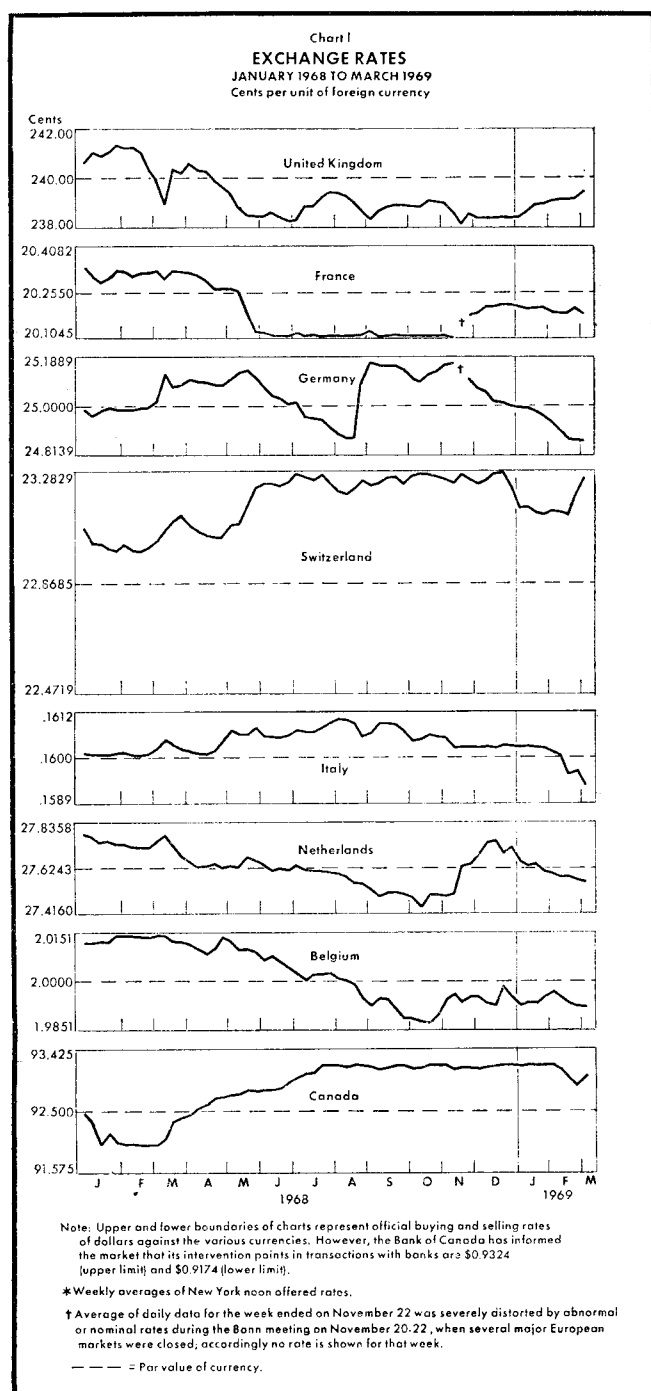
vested in United States Treasury bills and requested only that investments match the maturities of the official swap contracts. German banks responded to the improved incentives, enabling the authorities to roll over into 1969 the very large December maturities of earlier swaps. Moreover, German banks also purchased very substantial amounts of spot dollars, as foreigners withdrew funds from Germany and commercial leads and lags began to unwind.

Heavy demand for dollars both spot and on a swap basis continued into January 1969, reinforced by seasonal reflows from the German money market. As the outflows continued, the spot mark eased below par and the Federal Bank raised the cost of its official swaps moderately in several steps. Late in January, however, the very considerable outflows finally brought about some tightening of German banks' liquidity, and the Federal Bank's swap sales began to taper off. At the same time the Federal Bank raised its swap rates again, to reduce the net incentive to move funds into the Euro-dollar market.

During February the mark continued to move lower in active trading. At first the German Federal Bank gained reserves on balance, as receipts of dollars under maturing forward contracts slightly exceeded current spot sales and new swaps. By the month end, however, new outflows of funds into dollar investments were again running ahead of maturities. As of the end of February 1969, German gold and foreign exchange reserves were \$7.0 billion, compared with \$7.4 billion at the end of August 1968.

During the period of heavy outflows from Germany beginning in late 1968, the Federal Reserve was able to accumulate substantial amounts of German marks. By late January the System had purchased sufficient marks in the market and from the German Federal Bank to repay the entire \$112.1 million of swap drawings from the Federal Bank. The System continued to acquire mark balances during February and early March.

In early February the United States Treasury redeemed at maturity a mark-denominated note equivalent to \$50 million held by the German Federal Bank (see Table IV). The Treasury obtained the marks to meet the maturity directly from the German Federal Bank, which was losing reserves at the time. During the period covered by this report, in conjunction with the second agreement to neutralize United States troop costs in Germany the Treasury had issued new medium-term securities to the German Federal Bank as part of the quarterly series of four issues to total \$500 million equivalent. By early January, three of these securities had been purchased by the German Federal Bank, bringing the total of such securities to \$876 million equivalent.



FRENCH FRANC

The political and economic crisis in France in May and June 1968 gave rise to heavy selling of French francs in

the exchanges, and as the spot rate fell to its lower limit the Bank of France suffered large dollar losses in support operations. The crisis atmosphere lifted in late June, after the strikes were settled and returns from general elections assured the continuation of a strong government. Furthermore, firm domestic and international measures were taken to support the franc, including a \$1.3 billion credit package extended to France in early July by the United States, Germany, Italy, the Netherlands, Belgium, and the BIS. United States participation in the package took the form of a \$600 million increase in the Federal Reserve swap arrangement with the Bank of France, raising that facility to \$700 million.

Despite these stabilizing measures, the market remained skeptical about the future of the franc, particularly in view of the inflationary potential of the wage increases in June. Pressure on the franc continued throughout the summer and was aggravated by recurring rumors of a revaluation of the German mark. Selling pressures eased only temporarily following the publication, in mid-September, of the French government's 1969 budgetary plans. At the same time removal of exchange controls imposed in May also had only a short-lived favorable impact.

Over the course of the summer the Bank of France drew several times on the Federal Reserve swap line, using the first \$100 million by the end of June and drawing another \$390 million on the expanded facility through the end of September. Net drawings on September 30 amounted to only \$450 million, however, since the Bank of France had repaid \$40 million of its drawings in the summer following a sale of gold to the United States Treasury; France sold a total of \$240 million of gold to the United States in the third quarter (after sales of \$220 million in the second quarter). The French authorities also made use of other international credit facilities.

October was a generally quieter month, and the Bank of France was able to repay \$75 million of its swap debt to the System and to reduce obligations under other international credits. The respite was short-lived, however. The outbreak of renewed speculation in marks in early November gave rise to a massive outpouring of funds from France, with heavy losses to French official reserves. The French authorities responded by tightening monetary policy—including an increase in the discount rate to 6 percent and a ceiling on short-term bank credit growth. On November 18, after the November 16-17 monthly central bankers' meeting at Basle, Premier Couve de Murville went on nationwide television to declare that France was assured of "all the help she might need or will need in the future" and promised large cuts in planned government spending to bolster the franc. But the markets remained convinced that

the franc faced imminent devaluation, and heavy selling continued. To meet the pressures the Bank of France drew further on the Federal Reserve swap facility, raising its debt under that line to \$611 million, and also drew funds from other participants in the July credit package. In view of the continuing feverish speculation, the French authorities decided to close the Paris financial markets during the period of the Bonn meeting (November 20-22). Although the New York market remained open, there were only scattered quotations for spot francs at deep discounts below parity, and forward quotations were essentially unobtainable as the market believed that a devaluation of the franc was certain to follow the meeting.

At the conclusion of the Bonn meeting a new central bank credit facility for France in the amount of \$2 billion was announced. United States participation in the new credits took the form of a \$300 million increase in the Federal Reserve swap line—raising the total to \$1 billion—and a \$200 million facility extended to the Bank of France by the United States Treasury. The next day President de Gaulle confounded market expectations by rejecting devaluation of the franc, and on November 24 he set forth a new program to defend the existing franc parity. The new plan included a sharp cut in the government budget deficit, further monetary curbs, price restraints, and tax adjustments to improve the French competitive position, all backed up by stringent exchange controls.

When trading resumed on Monday, November 25, there was some immediate covering of short positions and the Bank of France began to take in dollars. In subsequent days the Bank of France continued to gain reserves, as the newly imposed exchange controls stopped capital outflows and French exporters complied with regulations requiring them to repatriate export proceeds within a short period of time. In early December, further restrictions required French importers to abrogate a substantial portion of their contracts to purchase forward cover in foreign exchange, and French banks were obliged to sell to the Bank of France the currencies held as cover against those contracts.

As a result of these moves the Bank of France continued to gain reserves which it used in part to repay official borrowings. By the year-end the bank had liquidated a total of \$181 million of its swap debt to the Federal Reserve, lowering those commitments to \$430 million. The bank had also repaid substantial credits drawn from other EEC countries and the BIS. At the same time the French authorities made further gold sales, bringing those to the United States to \$600 million for the year.

The French franc remained generally firm during January and February 1969. French controls were tightened

further in January. The authorities requested that French banks deposit with the Bank of France, over a period of several months, an amount of foreign exchange representing the net surplus of the banks' foreign exchange assets over liabilities in transactions with foreigners as of the end of January. Those French banks with net borrowings abroad were asked to maintain the existing level of those foreign exchange liabilities. By this means the authorities mobilized substantial amounts of foreign exchange to help cover the continuing French current-account deficit, while the many corrective measures taken in recent months worked their way through the French economy. In addition, the Bank of France used some of its reserve intake to reduce its outstanding Federal Reserve swap debt to \$306 million by early March.

STERLING

Sterling recovered slowly from the shock of devaluation, and it was not until the latter part of 1968 that a material improvement began to be visible. During the first half of last year, when many holders of sterling were struggling to reassess their positions, the pound was caught up first in the gold crisis and then in the backwash of the French troubles in May and June. Thus it was not until the summer that signs emerged of an improvement in the fundamental position of sterling. Even then, however, forward discounts remained relatively wide and sterling continued to be vulnerable to any new external shocks. Consequently, when speculation on a revaluation of the German mark and a devaluation of the French franc erupted again during the fall, sterling too came under pressure. Once this crisis had been weathered, however, and the exchange markets generally assumed a calmer atmosphere, sterling was able to resume its recovery. During the first part of 1969, with increasing evidence that the United Kingdom's economic measures are taking hold, sterling has been in a generally stronger position and the United Kingdom authorities have been able to make some progress in reducing Britain's international indebtedness.

The second half of 1968 started rather auspiciously for sterling. May and June had been very costly months for United Kingdom reserves, as the uncertainties of the deepening crisis in France compounded the adverse impact on sterling of continuing large British trade deficits, threatened labor disputes, and the pull of rising Euro-dollar market rates. Despite these pressures, the United Kingdom authorities were able to make substantial repayments of short-term assistance in June, mainly through use of the full \$1.4 billion available under a standby credit with the IMF. Thus, at the end of June all outstanding debt

under the swap facility between the Federal Reserve and the Bank of England was paid off, and the \$2 billion facility reverted to a standby basis (see *Monthly Review*, September 1968).

Official confirmation on July 8 that twelve central banks and the BIS were prepared to participate in a new multi-lateral credit facility—amounting to \$2 billion—to offset reductions in the sterling balances of sterling area countries helped to turn market sentiment, which until that period had been increasingly discouraged. More important, June trade figures, showing reduced imports, seemed to offer the first tangible evidence that devaluation was working. Combined with a number of other encouraging developments at home and abroad, these announcements stimulated widespread buying of sterling, lifting the spot rate above \$2.3950 by the end of July. However, heavy losses at the end of June and in the first week of July had required the Bank of England to reinstitute drawings on the Federal Reserve swap arrangement and, despite sizable reserve gains in the last three weeks of July, outstanding drawings amounted to \$350 million at the month end.

Hopes for further improvement in the trade account helped to sustain demand for pounds through early August, and the Bank of England was able to reduce its swap drawings by \$50 million to \$300 million. But these hopes were dashed with the publication of July trade results showing that the previous month's gains had been reversed. Shortly afterward, Soviet intervention in Czechoslovakia brought new uncertainties, which were soon compounded by mark revaluation rumors which in turn cast new doubts on sterling. The pressures thus generated carried through early September, by which time the spot rate was back close to the floor and the Bank of England had increased its drawings on the Federal Reserve to \$400 million.

As in earlier months, the market's appraisal of sterling turned heavily on the latest trade figures. Relatively favorable results for August and September were thus important factors in sterling's improved showing through the end of October. The temporary subsiding of mark revaluation rumors and the announcement in early September that final agreement had been reached on the new sterling balances arrangement were further elements in sterling's stronger market performance during this period.

A sharp run-up in sterling rates, following President Johnson's announcement of a bombing halt in North Vietnam, was abruptly halted by the new outbreak of mark revaluation rumors in early November. The sterling market remained roughly balanced at about \$2.39 during the first two weeks of November despite uneasiness over the implications for the domestic economy of

the government's announcement of new instalment credit restrictions. But news on November 13 of a doubling of the United Kingdom trade deficit for October left sterling fully exposed to the mounting pull of funds into Germany in anticipation of an imminent mark revaluation. Before the end of November the Bank of England had been forced to extend heavy support to hold sterling at \$2.3827 and had increased its outstanding drawings on the Federal Reserve by \$750 million, raising the total to \$1,150 million.

During the Bonn meeting of November 20-22, foreign exchange dealings were suspended in London as in several other major European centers. Meanwhile, the United Kingdom authorities acted to bolster their austerity program through indirect tax increases, tightened credit curbs, and a 50 percent deposit requirement against imports of manufactured and semimanufactured goods.

Although speculation abated and markets were steadier once the Bonn meeting was over, considerable uneasiness remained. When trading resumed on November 25, demand for pounds was limited to modest covering of short positions. Moreover, in the early part of December, sterling was subjected to renewed selling pressure by the market's apprehensions over heightened tensions in the Middle East and reports suggesting disagreement within the British government regarding the austerity program. Higher United States interest rates added to market pressures. In this atmosphere, the Bank of England sustained substantial losses in support of spot sterling and forward discounts again widened sharply. By midmonth, however, the market had become heavily oversold, and spurred by expectations that the next set of trade figures would show substantial improvement—as in fact was the case—traders moved to cover short positions. The rebound enabled the Bank of England to recover most of its losses earlier in the month, but the market then turned cautious once again. On balance, very little of the substantial reflux of funds from Germany found its way back into sterling, with the result that Bank of England commitments to the Federal Reserve remained at \$1,150 million at the year-end.

Increasing monetary restraint in the United States, signaled by the $\frac{1}{4}$ percentage point increase in Federal Reserve discount rates effective December 18, was quickly transmitted to the Euro-dollar market after the turn of the year through the rapid rise in dollar placements with head offices by the European branches of United States banks. The contraseasonal upswing in Euro-dollar rates probably kept sterling from benefiting fully from the normal seasonal reflows of funds from Continental centers, augmented on this occasion by the sizable outflows from Germany. About mid-January, as Euro-dollar pressures

eased temporarily and the market again expected favorable trade figures, buying of sterling picked up, only to taper off once more later in the month. Although the December trade results failed to measure up to expectations, the release in mid-February of sharply reduced deficit figures for January again gave a boost to the market, which was also encouraged by prospects for much reduced British government domestic borrowing during the coming year. Thus, despite record levels for Euro-dollar rates in the latter part of February, the Bank of England was able to announce an \$18 million reserve gain for the month even after heavy debt repayments, mainly to the IMF. On February 27, the British raised the bank rate by 1 percentage point to 8 percent, in order to help achieve the desired reduction in bank credit and to help insulate sterling from the pull of continuing high Euro-dollar rates.

SWISS FRANC

The Federal Reserve liquidated a large volume of Swiss franc swap drawings during the first half of 1968, and by mid-July the System's Swiss franc swap lines were entirely on a standby basis. Shortly afterward, however, Swiss commercial banks began bringing home funds to meet domestic liquidity needs, and the Federal Reserve reactivated its swap line with the Swiss National Bank to absorb dollars that were taken into Swiss reserves. By August 1 the System had drawn \$145 million equivalent on the Swiss central bank. The inflow of funds to Switzerland brought about an easing of liquidity conditions in the Swiss money market and subsequently a decline in the spot franc rate which lasted well into August. Accordingly, in August the System and the Treasury paid off the last \$36 million of forward franc commitments to the market dating from late 1967 and early 1968.

After mid-August, the Soviet invasion of Czechoslovakia and the uncertainties generated by a renewed flare-up of speculation in German marks brought a sharp jump in demand for Swiss francs. However, the franc rate did not reach the Swiss National Bank's upper intervention point, and in early September the spot rate eased somewhat as funds began to move out of Switzerland into Germany. Later in that month, quarter-end liquidity demands resulted in a firming of the franc, but Swiss banks sold only a small amount of dollars to the National Bank, meeting their liquidity needs primarily by rediscounting money market paper with the Swiss National Bank rather than by liquidating dollar assets in view of the relatively higher Euro-dollar rates. In these circumstances, the Swiss National Bank covered the dollar needs of the Swiss Confederation and dollars required for exchange transactions with

other countries through purchases of dollars from the Federal Reserve, thereby providing the System with francs needed to meet short-term obligations. Thus, by early October the Federal Reserve had reduced its outstanding swap debt to the Swiss National Bank by \$105 million to \$40 million equivalent.

The Swiss money market remained tight in October, and late in the month the Swiss National Bank had to take in dollars. The Federal Reserve absorbed these gains by drawing \$80 million equivalent on the swap line with the National Bank, raising the swap debt to \$120 million equivalent by early November. Subsequently the spot franc dipped lower and traded quietly through mid-November, despite the heavy speculation in the exchanges focused on the German mark, French franc, and sterling. When international currency uncertainties intensified severely during the three days of the Group of Ten meeting in Bonn, the Swiss franc rose to the ceiling and the Swiss National Bank took in some \$215 million. The Federal Reserve absorbed most of the Swiss National Bank's intake of dollars by drawing an additional \$200 million equivalent on its swap line with that bank. These drawings raised the System's indebtedness under the swap facility with the Swiss National Bank to \$320 million equivalent.

In December as in past years, the Swiss authorities offered short-term swaps to Swiss commercial banks repatriating funds for year-end needs. The banks made very heavy use of this facility, with total swaps rising to \$746 million. Following past procedure the Swiss authorities rechanneled these dollars back to the Euro-dollar market in order to prevent the disturbance of that market that would otherwise have occurred.

After the year-end, the usual seasonal easing of liquidity conditions in Switzerland, coupled with high and rising Euro-dollar rates, resulted in substantial outflows of Swiss funds and a sharp drop in the Swiss franc rate. The dollars received by the banks under maturing swaps with the Swiss National Bank were readily absorbed during early January, and in the latter part of the month, as additional demand for dollars pushed the spot franc lower, the Swiss National Bank reentered the market as a seller of dollars for the first time since April 1968. These dollar sales provided the Federal Reserve with the opportunity to purchase francs from the Swiss National Bank. By the end of February, the System had made \$190 million equivalent of such purchases. The System used the francs to repay outstanding swap indebtedness to the Swiss National Bank. Additional repayments were made with \$75 million equivalent of francs obtained through United States Treasury issues of Swiss franc securities to the Swiss National Bank and the BIS and with \$15 million of francs

from balances. (At the same time the Swiss National Bank purchased \$25 million of gold from the Treasury.) Thus, by the end of February, the System had reduced its Swiss franc obligation by \$280 million to \$40 million equivalent.

BELGIAN FRANC

Economic recovery in Belgium and the maintenance of relatively low levels of short-term interest rates resulted in a steady decline in the Belgian franc rate during the summer of 1968. In July the spot franc dipped below par (\$0.02000) and the Belgian National Bank provided support to slow the decline. As part of that operation the bank utilized \$20 million under its swap facility with the Federal Reserve, the first such drawing since 1963. Selling of francs continued intermittently through late summer, especially during the period of heavy pressure on the French franc. The selling was not severe, however, and in the latter part of September the Belgian National Bank repaid the \$20 million of credits drawn earlier under the swap line with the Federal Reserve, thereby restoring the entire \$225 million arrangement to a standby basis.

Selling pressures resumed near the end of September and carried into October. Part of the outflows from Belgium reflected spot sales of francs by some United States corporations which refinanced in Belgium dollar credits employed earlier in direct investments in that country. During most of October the authorities held the spot franc moderately above its official floor (\$0.019851) and covered market losses with drawings on the Federal Reserve swap line. By the end of October, drawings by the Belgian National Bank totaled \$120.5 million.

November's speculative upheaval in Europe gave rise to heavy selling of francs which cost the Belgian authorities substantial support losses, although the pressures lightened considerably in the quieter atmosphere after the Group of Ten meeting at Bonn. The Belgian central bank drew \$65 million under its swap line with the Federal Reserve in November and another \$5 million in December to cover the cost of official exchange market support. In early November and late December the United States Treasury purchased a total of \$216 million of Belgian francs from the Belgian authorities; \$60.4 million equivalent of these francs was used to redeem in advance of maturity a two-year note issued to the National Bank in 1967 (leaving no further United States obligations in Belgian francs), and the balance was paid to the IMF to help reconstitute the United States gold tranche position with the Fund. For its part, the Belgian central bank used the dollar proceeds of the Treasury's franc purchases to replenish its reserves and repay a total of \$183

million of its swap debt with the Federal Reserve, leaving \$7.5 million still outstanding at the end of 1968.

In the meantime, effective December 19, the Belgian National Bank had raised its discount rate to $4\frac{1}{2}$ percent from $3\frac{3}{4}$ percent, to help stem short-term capital outflows and in response to evidence of money market strains in Belgium associated with larger domestic borrowing requirements. Subsequently the spot franc strengthened, reaching par just before the year-end.

But selling of francs resumed in January 1969, largely reflecting the weaker trend in the Belgian current account. The Belgian National Bank again provided support for the franc and eased the consequent reserve drains by making use of its swap line with the Federal Reserve. In January the bank drew a net of \$33 million, raising its swap debt to the System to \$40.5 million. Trading in francs was quieter in February and early March, and the Belgian National Bank was able to make swap repayments totaling \$27.5 million, reducing the obligation to \$13 million. Effective March 6, that bank raised its discount rate by $\frac{1}{2}$ percentage point to 5 percent, in view of the rise in interest rates abroad and to moderate domestic credit expansion.

DUTCH GUILDER

In June the Netherlands Bank had drawn \$54.7 million under the Federal Reserve swap line after its dollar balances had been depleted by conversion of guilders drawn from the IMF by France and the United Kingdom. Although the guilder drifted lower in July and August, the Netherlands Bank took in sufficient dollars to make a \$24.9 million swap repayment in early September.

The downward drift of the spot rate continued into late summer, as the Dutch current account weakened and as Dutch funds moved into United States corporate securities. A slight rise in Euro-dollar rates in early October contributed to a further decline in the rate so that by mid-October it had reached \$0.2744 $\frac{1}{4}$, its lowest level since the 1961 revaluation. During the course of the decline, however, the Netherlands Bank provided only occasional and modest market support. In fact, in mid-October the bank was able to restore the full swap facility with the Federal Reserve to a standby basis by repaying the \$29.8 million outstanding balance of the June drawing.

The downtrend ended when the money market in Amsterdam tightened in the last half of October. However, the spot rate held steady as an increasing demand for marks more or less outweighed the influence of the tight money market. At that time the Netherlands Bank increased its dollar balances by selling \$25 million of

guilders to the United States Treasury, which used them to make an advance repurchase of its obligation to the IMF. After the Bonn meeting on November 20-22, the demand for marks eased abruptly and the spot guilder strengthened.

Year-end liquidity requirements in the Netherlands resulted in a further firming of the guilder throughout December. Pressures were modest, however, and were relieved through market purchases of dollars by the Netherlands Bank, largely on a swap basis; the bank's swap purchases for December totaled \$84 million. Just before Christmas the Netherlands Bank raised its discount rate $\frac{1}{2}$ percentage point to 5 percent, explaining that the move was made in response to the rise in rates abroad, a weaker trend in the Dutch current account, and danger of renewed inflationary tensions in the Dutch economy.

During the early months of 1969, the Dutch current international payments position was roughly in balance but, along with other European currencies, the spot guilder responded to the pressures associated with active demand for Euro-dollars. Thus the spot rate declined moderately as Dutch interests switched some funds from guilders to dollars, but the outflows were modest and central bank activity was minimal.

Shortly before the end of 1968, the Dutch government elected to prepay debts outstanding under postwar Marshall Plan credits and purchased \$65.7 million from the United States Treasury for that purpose. The Treasury used the entire guilder proceeds to redeem in advance of maturity a one-year certificate of indebtedness issued to the Netherlands Bank in January 1968. This was the only outstanding United States obligation in guilders.

ITALIAN LIRA

With the Italian economy showing signs of slower growth through much of 1968, substantial amounts of long-term capital moved abroad in response to more attractive investment opportunities, notably in the Euro-bond market. Italian banks also placed large amounts of short-term funds in the Euro-dollar market. As a consequence of these capital outflows, Italian official reserve gains were limited. These developments, and Italian official sales of dollars in connection with conversion of lire drawn from the IMF by France and the United Kingdom, provided the opportunity for the Federal Reserve to liquidate completely its outstanding swap debt with the Bank of Italy, thus placing the swap facility fully on a standby basis by early July. Subsequently, in October the Federal Reserve and the Bank of Italy agreed to increase their reciprocal currency facility by \$250 million, to \$1 billion,

bringing it fully into line with the System's reciprocal currency arrangements with other major countries.

As the Italian balance of payments moved into its period of seasonal weakness, the lira began to ease in September and, during the November speculative upheaval in European exchange markets, the lira came under further selling pressure as Italians covered commitments in marks. More normal trading patterns resumed after the Bonn meeting and continued through the year-end. In early 1969, however, the pull of interest rates in the Euro-dollar market drew funds from Italy, and the Italian authorities provided some support for the lira while permitting the spot rate to fall sharply.

During the period under review the United States Treasury added moderately to its technical forward lira commitments, which have arisen in connection with dollar-lira swaps extended by the Bank of Italy to its commercial banks. (These commitments were described in the September 1968 issue of this *Review*, pages 188-89.) Shortly before the end of 1968, the Treasury issued to the Italian Exchange Office a $4\frac{1}{2}$ -year lira note, equivalent to \$100 million, in connection with its understandings with Italy on the neutralization of United States military expenditures. The Treasury took advantage of the lira proceeds to make an advance repurchase of its obligations to the IMF.

CANADIAN DOLLAR

Once the speculative atmosphere of early 1968 cleared away, Canada's strong trading position and ready access to long-term capital resources both in the United States and Europe provided a buoyant market outlook for the Canadian dollar. During the summer months the Bank of Canada repaid its earlier swap drawings on the Federal Reserve, and other special international credit facilities were terminated without the need for their use. Subsequently, through late summer the Canadian dollar remained largely at its effective ceiling (\$0.9324), as demand was spurred in part by the conversion of Canadian borrowings abroad. The Canadian authorities gained modest amounts of reserves and the use of Canadian dollars in drawings on the IMF by France and the United Kingdom substantially reduced Canada's repayment obligation to the Fund incurred earlier in 1968; by September Canada's gold tranche was reconstituted to the full \$185 million.

The Canadian dollar continued to benefit from optimistic market appraisals through the closing months of 1968. In mid-December, an exchange of letters took place between United States and Canadian Treasury officials, restating the United States exemption of Canada from all United States balance-of-payments programs and the basic

principle that it would not be Canada's intention to achieve increases in its exchange reserves through borrowing in the United States. Implementation of this principle does not require that Canada's reserves be limited to any particular figure.

On December 18 the Bank of Canada raised its discount rate by $\frac{1}{2}$ percentage point to $6\frac{1}{2}$ percent following announced increases in Federal Reserve discount rates. For the month of December the Bank of Canada gained some further reserves. Thus, despite a major crisis early in 1968, Canada's gold and foreign exchange reserves (including the net creditor position with the IMF) were up by \$332 million for the year as a whole.

The Canadian dollar edged off early in 1969, as the further upswing in United States interest rates led to some switching of Canadian funds into dollar investments. Nevertheless, the market undertone remained quite strong through early March. Effective March 3, the Bank of Canada raised its discount rate by another $\frac{1}{2}$ percentage point to 7 percent in view of strong demand for domestic credit and the rise in short-term money rates following higher rates abroad.

EURO-DOLLAR MARKET

During the second half of 1968 and the first two months of 1969, activity in the Euro-dollar market reached unprecedented levels, but the massive flows of funds through that market were accommodated in an orderly fashion with the assistance of some defensive central bank operations—primarily by the German Federal Bank and the Swiss National Bank. Indeed, the Euro-dollar market once again demonstrated its remarkable resiliency in the face of extraordinary demands. In particular, it accommodated a further very substantial increase in the borrowings by United States banks through their overseas branches during a period in which there were massive flows into and out of the market as a result of developments in the foreign exchange markets.

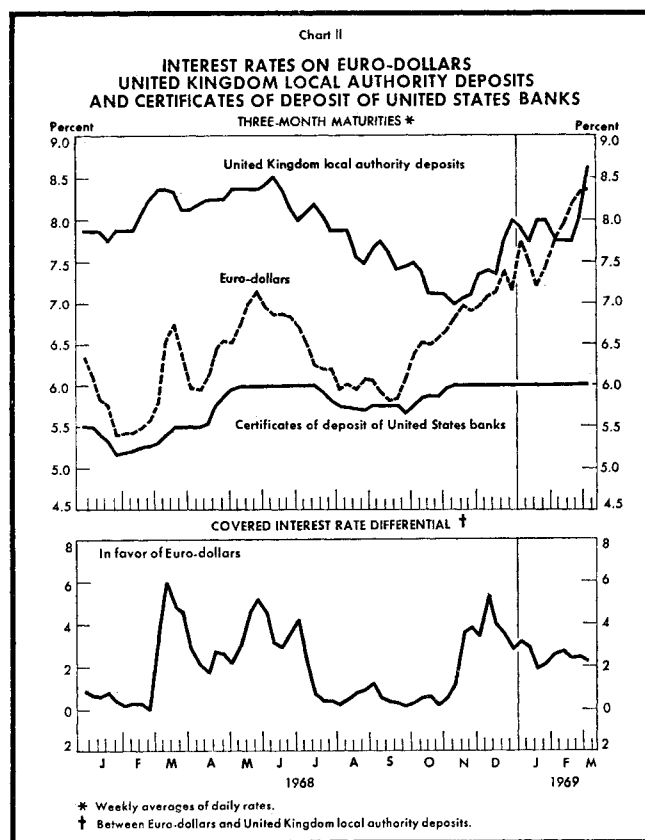
Early in July, with funds readily available after the midyear adjustments by Continental banks, United States banks increased their borrowings sharply, with total takings reaching \$7.0 billion. During the rest of the month, these borrowings were allowed to run off somewhat, to a level of approximately \$6.2 billion at the month end, only to be followed by a further sharp rise in August. Late in August, the outburst of speculation over a revaluation of the German mark resulted in a heavy flow of funds, some of which came out of Euro-dollars, into German official reserves. The German authorities moved quickly to push these funds out again through dollar-mark swap

operations with German commercial banks. Moreover, heavy drains on French reserves also tended to supply funds to the market in early September. Consequently, funds remained readily available in the market and interest rates declined somewhat (see Chart II).

During the course of October, the Euro-dollar market was generally much quieter, as were the exchange markets. On the other hand, interest rates began to move up in sympathy with somewhat firmer monetary conditions in the United States.

The speculative upheaval in the exchange markets in November caused only moderate strains in the Euro-dollar market, as the German Federal Bank once again immediately moved to rechannel a major portion of its dollar intake out into the market through swaps. Moreover, the Federal Bank's outright sales of forward marks in the first few days after the Bonn meeting encouraged additional reflows from Germany, and this operation was backed up in New York where the Federal Reserve sold forward marks.

Nevertheless, in early December Euro-dollar rates once



again began moving up sharply as United States domestic interest rates advanced. Pressures were felt particularly in the shorter maturities, reflecting not only generally tighter monetary conditions in the United States but also the usual seasonal pressures associated with year-end positioning by European banks. At the same time, exchange market sentiment regarding sterling was softening once again and, as discounts on forward sterling widened, a substantial incentive developed in favor of Euro-dollars over United Kingdom investments. To avoid any undue additional strain on the pound in view of approaching year-end repatriations of funds to the Continent, the BIS, using dollars drawn on the swap line with the Federal Reserve, placed \$80 million in the Euro-dollar market. Although Euro-dollar rates rose further in the latter part of December, the increase by and large reflected the higher United States rates (following the $\frac{1}{4}$ percentage point increase in Federal Reserve discount rates on December 18 and the further rise in United States banks' prime loan rates to $6\frac{3}{4}$ percent), and Euro-dollar market conditions remained orderly. Reflows from Germany continued. At the same time, Swiss commercial bank repatriations of funds for domestic year-end needs were again accommodated without undue strain on the market, thanks to the swap operations of the Swiss National Bank. The Swiss commercial banks undertook \$746 million of swaps with the National Bank, and the Swiss central bank in turn rechanneled the dollars so obtained back into the Euro-dollar market, both directly and through the BIS. In the latter part of December, takings by United States banks' branches dropped sharply (to a total of about \$6.0 billion), but United States corporations took a substantial amount of dollars out of Europe, partly in response to interest rate considerations and partly to comply with provisions of the Commerce Department's program.

Seasonal pressures eased after the year-end, but nevertheless interest rates soon rose further as major United States banks looked to the Euro-dollar market to relieve liquidity drains imposed by large runoffs of certificates of deposit. The advance in rates gained new momentum, following the $\frac{1}{4}$ percentage point rise in United States banks' prime loan rates to 7 percent per annum on January 7. United States banks bid aggressively for Euro-dollars through their European branches, raising their takings to a new peak of \$8.6 billion by the end of January. Meanwhile market supplies were being augmented by further flows of funds from Germany and reflows from Switzerland, and there was some reversal of the heavy United States corporate repatriations just prior to the end of 1968. With demand for funds heaviest in the short-term maturities, interest rates for one-month deposits advanced sharply, to nearly 8 percent per annum in early January compared with 7 percent per annum at the year-end.

In late January the heavy flow of funds to the Euro-dollar market from Germany tapered off, and the German Federal Bank began to take in dollars as German banks' deliveries of dollars under maturing swap and forward sale contracts exceeded German official spot dollar sales. Demand for Euro-dollars from United States banks' branches remained brisk in February, and repatriations by French banks, which had to comply with newly tightened exchange controls, added to market pressures. As a result, Euro-dollar rates moved up to new record levels—in excess of 8 percent per annum for one- to six-month deposits—attracting funds from Italy and Switzerland in particular and contributing to the generally weaker trend in most Continental currencies through early March. Nevertheless, throughout this period trading in Euro-dollars remained quite orderly and market needs were met without undue strain.

Coming Problems in the Control of Money and Credit*

By WILLIAM F. TREIBER

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In the fourth century B.C., writing about the Peloponnesian War, Thucydides stressed the importance of "knowledge of the past as an aid to the interpretation of the future, which in the course of human things must resemble if it does not reflect it". Taking Thucydides' advice, I think a brief review of recent economic and credit developments should facilitate an understanding of coming problems in the control of money and credit.

Perhaps I shouldn't even use the word "control" because it assumes a precision that does not exist. However, the word was used in the title assigned to me by the program planners, and there it is in the title of my remarks. I would prefer to use the word "influence". The Federal Reserve System certainly can influence the amount, availability, and cost of money and credit.

Let us bear in mind that the control of money and credit, or the influencing of money and credit, is not an end in itself. It is a means of promoting our nation's basic economic goals of (1) maximum sustainable economic growth, (2) maximum practicable employment, (3) reasonable price stability, and (4) equilibrium in international transactions.

RECENT EXPERIENCE

The current unprecedented economic expansion began eight years ago. At that time there were substantial unused resources of men and equipment. By the beginning of 1965, this slack had been largely taken up. As unused resources were brought into use, economic growth expanded rapidly. Over the four-year period ended in

1964, we had an annual growth in gross national product of about 5½ percent in real terms, a reduction in the rate of unemployment from 7 percent to about 5 percent, and relatively stable prices. Unfortunately, however, we also had a large deficit in our international balance of payments. With this exception, we did pretty well in promoting our national economic goals. This achievement was fostered by a mutually reinforcing combination of fiscal policy and monetary policy.

But in 1965 inflation reared its ugly head. An escalation of military expenditures on top of a fully employed economy led to excessive aggregate demand. Unfortunately, as a nation we delayed in taking adequate steps to reduce the excessive stimulation that Federal Government expenditures were having on the economy. Prices rose at an accelerating rate. So did wages and unit costs of production.

At long last, in June 1968, after much damage had already occurred, the Congress enacted the Revenue and Expenditure Control Act of 1968 which provided for the surtax and certain spending restrictions. The legislation, together with other factors, is converting a \$25 billion budgetary deficit in the fiscal year ended last June to an approximate balance of receipts and expenditures this year.

Upon enactment of the legislation last June, much talk was heard about the danger of economic "overkill"; there was fear that the restrictive effects of the tax and expenditure provisions would severely limit economic activity and might bring about a recession.

But consumers kept up their spending in spite of the tax increase; they reduced their rate of saving which previously had been much higher than normal. Residential construction and business investment continued to be vigorous. So was the demand for labor. There were many labor bottlenecks, and unemployment was very low. Inflationary pressures were stronger than they had been in

* An address before the financial conference of the National Industrial Conference Board, New York City, February 20, 1969.

years, and there was a strong inflationary psychology. Inflation stimulated imports and drastically reduced our traditional substantial international trade surplus. In 1968, the rise in consumer prices was 4.7 percent, the highest it had been since 1951.¹

On the financial side, the demand for credit was very strong and interest rates reached their highest level in decades. Commercial bank credit had risen in the first half of 1968 at an annual rate of 6 percent, but in the second half it rose at a 15 percent rate. The money supply, i.e., currency and demand deposits in the hands of the public, rose at an annual rate of 6 percent in the second half of the year, while the money supply plus time deposits rose at a 12 percent rate.

In the first part of 1968, the main job of trying to dampen the inflationary pressures fell on the Federal Reserve, which pursued a restrictive credit policy. Although the Treasury normally retires debt in the first half of the year, it had a large deficit in the first half of 1968. Thus, it had to borrow substantially. Despite this development, the 6 percent annual rate of bank credit expansion in that period was about half as large as the rate of expansion in the year 1967.

By midsummer, however, the Federal Reserve eased up a bit in view of the new restrictive fiscal policy. In retrospect, one may question the wisdom of that action. By the year's end, however, the Federal Reserve was pursuing a more restrictive policy and has continued to do so.

Before getting into a discussion of the problems now confronting us in the control of money and credit, I would comment briefly on our international balance of payments. Our statistical record with respect to international capital flows was much better in 1968. Foreigners increased their investments in our stock market. Loans to foreigners and investment outflows were curtailed under the temporary Government programs administered by the Federal Reserve and the Commerce Department. And our Treasury made additional special arrangements with foreign monetary authorities under which more of their reserves were placed in less liquid form. Thus our recorded liquidity balance showed a small surplus, and our official reserve transactions balance showed a large surplus.

Let us not be misled, however, by these figures. There are limitations on a continuing flow of equity investment here by foreigners and on further special transactions with foreign monetary authorities. And it would be a grave

mistake to make the foreign credit and investment restraint program permanent. Not only must we correct the deterioration in our traditional trade surplus; we must exert every effort to enlarge the surplus over the years.

Thus we still have an important balance-of-payments problem that requires our best efforts to solve. I trust that the improved balance-of-payments statistics for 1968 will not obscure the need and create a euphoria which can only worsen the long-run adjustment problem.

BASIC PROBLEM

So much for background. In this setting, the basic problem before us is how best to promote our national economic goals. More specifically, in the control of money and credit, we must seek:

- (1) to reduce gradually, but steadily, the rate of price inflation,
- (2) to do so without a substantial rise in unemployment or a recession,
- (3) to bring to an end the current attitude of businessmen, investors, and consumers that inflation will continue indefinitely,
- (4) to promote economic balance in our relations with the rest of the world, and
- (5) thus establish a sound basis for healthy and sustainable growth.

In brief, these objectives will be promoted by checking excessive overall demand in the economy. On the supply side, we may reasonably expect the future to bring more efficient productive facilities; these should come from large investment, technological advances, and a larger effective labor force as a result of general population growth and better individual training. As these expectations are realized, production should increase to meet the economy's demands, inflationary pressures should subside, and stability should become a reality. Thus the main problem at this time is the proper restraint of demand without stifling it.

We should have no illusion that the transition from inflation to stability and sustainable growth will be easy. Nor can it be accomplished overnight. But the transition is essential for the long-run economic health of the United States.

FISCAL AND MONETARY POLICIES

Fiscal policy and monetary policy should work together, seeking to restrain overall demand without stifling it; they should support and complement each other. The

¹ In the period 1961-64, consumer prices rose only 1.2 percent per year.

nub of a compensatory fiscal policy is a budgetary deficit in a period in which a substantial portion of the nation's resources are idle, and a budgetary surplus in a period in which excessive demand presses on available resources. As we all know, in practice it has been easier to achieve a deficit than a surplus. In the current situation of excessive demand, fiscal policy should continue to do its part; it should avoid stimulating the economy. In my view, in the absence of extraordinary developments—and I don't see any—the income surtax should not be allowed to expire in June. I think it should be extended for another year, and that there should continue to be a close scrutiny of expenditures and a check on them. An effective fiscal policy will contribute to a reduction of pressures in the money and credit markets, and thus avoid placing an excessive burden on monetary policy.

Monetary policy must also do its part. As you know, the Federal Reserve discount rate was raised in mid-December to bring it back to 5½ percent, and since then there has been increased pressure on the reserve position of member banks.

The maximum rates of interest on certificates of deposit (CD's) and other time deposits under Regulation Q have been left unchanged despite a rise in interest rates on marketable securities and a substantial runoff in the amount of large CD's outstanding as CD's have become less attractive to investors.

From early December through the first week of February, large CD's declined by more than \$3½ billion. This decline, of course, has put some pressure on the banks, but they have managed partly to offset these losses by tapping the Euro-dollar market. In the first five weeks of this year, Euro-dollar takings, i.e., the amount of advances by foreign branches of American banks to their head offices, rose by \$2½ billion to \$8½ billion. The rates paid for such funds have exceeded Regulation Q ceilings by a good bit, but of course such borrowings are exempt from interest rate ceilings and reserve requirements.

In 1966, after CD rates reached the Q ceilings in August, the total borrowings of Euro-dollars by the large banks rose by \$1½ billion, an amount roughly half as large as the decline in CD's. Since 1966 the money market banks, which are the major source of business loans to large corporate borrowers, have vastly developed their capacity to tap the Euro-dollar market.

One of the problems in the control of money and credit is the use of the Euro-dollar market by American banks as a source of funds. There are indeed two aspects of the problem: (1) the role of Euro-dollars in the process of adjustment by the banks to pressures on their reserve

positions, and (2) the effect of the increased use of Euro-dollars by our banks on interest rates in the foreign markets in which the Euro-dollars are obtained.

Flows of personal savings into financial intermediaries are also influenced by interest rate regulations. Although the proportion of income saved by individuals was lower after mid-1968, additions to savings accounts at commercial banks and thrift accounts at mutual savings banks and savings and loan associations were not greatly affected. When in 1966 the overall net intake of funds into the thrift institutions dwindled, residential construction declined dramatically. A number of the institutions, in fact, experienced sizable withdrawals. In this situation, special arrangements were made by the Federal Reserve to provide emergency credit assistance, but fortunately there was no need to use them. I believe that the thrift institutions have learned much from their experience in 1966. Then they had a good deal of "hot" money placed with them by customers who were highly rate conscious. Now they don't have so much hot money, and they are in a more liquid position. They are better equipped to handle a slowdown in growth of thrift accounts or even a decline in such accounts if such a slowdown or decline develops. Nevertheless, I would expect the Federal Reserve to provide emergency credit assistance in the unlikely event of a severe drain of funds that could not be accommodated through customary adjustment procedures.

Another problem is a highly intangible one, incapable of statistical measurement; it is the difficult problem of inflationary expectations. Monetary restraint should be sufficiently strong and clear to demonstrate to the public that for the United States inflation is not going to be a way of life. At the same time, Federal Reserve policy should not be so tight as to cause recession. I hope we can successfully steer this course between Scylla and Charybdis.

Over the last decade, as you know, a major consideration in the formulation of monetary policy has been our international balance of payments. We also have had to take into account the possible effect on vulnerable foreign currencies of changes in rates of interest in the United States and of pressure on the reserve positions of our banks. An important objective of monetary policy will be to help improve our balance of payments.

The most important thing that can be done at this time to improve our international position is to lick inflation at home. Reduction of excessive demand at home, and curtailment of price increases which have recently plagued us, should go far toward reducing the demand for imports, which rose at an unprecedented rate in 1968. At the same time, licking inflation should contribute to

keeping our products competitive in world markets and should encourage greater effort to market our goods abroad and thus expand our exports.

As we struggle to stabilize the purchasing power of the dollar, we must be ever mindful, of course, that employment is an important economic goal. What is the best way to promote employment? Are very rapid increases in overall demand the only way? The experience of other countries has shown that, although the stimulus of excessive demand may temporarily reduce unemployment, the resultant inflation over the longer run reduces employment and creates severe hardships.

The National Industrial Conference Board help-wanted ad index is at a record high. For over three years our rate of unemployment has been at or below the 4 percent interim unemployment target set by the Council of Economic Advisers in 1961. The unemployment rate for married men at 1.4 percent is the lowest since these statistics were first collected in 1954. But the unemployment rate among white teen-agers (16 to 19 years, inclusive) is about 10 percent, and the rate among nonwhite teen-agers is more than 20 percent. Maintaining an excessive overall demand will not solve the problem of those unemployed persons who are inadequately trained or inadequately motivated. In this group different individuals have different problems. Much has been done in the last couple of years to provide training programs geared to the needs of particular individuals and to likely work opportunities. Much more must be done. This kind of attention to the problems of individuals in the ghetto is going to help them much more than keeping up an excessive demand for workers to fill jobs for which they cannot now qualify.

CREDIT GROWTH

Until it is clear that aggregate demand in the economy is under adequate control, you can expect the Federal Reserve to continue to seek to restrain the expansion of credit which adds to demand.

In the present situation, with the economy operating at practical capacity ceilings and with a pervasive inflationary psychology, credit should not grow at the extraordinarily rapid rate of last year. The shift of the Treasury from the role of a massive net borrower to a neutral position will, of course, reduce the demand for funds. But private demands, as well as state and local government demands, are large.

In the present economic setting the Federal Reserve will not supply sufficient reserves to enable the banks to acquire all the good investments offered them and to make all the loans requested of them by borrowers of good credit standing. This does not mean that the Federal Reserve wants to bring credit expansion to a halt; it wants to moderate the pace of expansion so that overall economic advance can be sustained but at a slower pace than has recently prevailed.

There should be no need for banks to dump good assets in an unreceptive market at unrealistic prices. Bankers and others learned much in 1966, I think, about the management of their assets and their liabilities. I think they are better equipped now to take, and are more aware of the need to take, appropriate steps to protect themselves from getting into a position where they must make drastic changes in their policies and practices without enough time for careful consideration and orderly decision making. If a bank finds itself in need because of an unusual loss of funds, or other special circumstances requiring temporary assistance, it has, of course, access to the Federal Reserve discount window. It is part of our job to be of assistance while a bank is making necessary adjustments.

Bankers and other lenders have already established higher rates of interest—a traditional method of discouraging borrowing. But rationing credit through rate alone is not likely to be sufficient. Bankers in general will no doubt conclude, as many have already, that they will have to be more selective in meeting loan requests. They will have to consider more criteria than merely the creditworthiness of the borrower. They will have to apply some order of priorities consistent with the time-honored necessity of serving the public interest and of balancing the interests of the banks' customers, depositors, and stockholders. Sometimes perhaps they will lend less than the borrower requests. This type of selective action by individual bankers, who have knowledge of all the relevant facts, should gradually and with minimum disruption reduce the temperature of our overheated economy.

* * * * *

As fiscal policy and monetary policy work together and as private enterprise exercises self-restraint—as all of us work together—it should be possible over time to lick the inflation and restore stability and sustainable growth in our economy.

The Business Situation

It appears increasingly clear that the tax surcharge enacted last June has restrained consumer spending in recent months. Retail sales in January, though up from the depressed December reading, were at a level no higher than in mid-1968. Nonetheless, consumer behavior has been highly unpredictable in the past few years and a resurgence of consumer demand cannot be ruled out, especially in view of the currently high rate of personal saving. At the same time, there are no indications that business fixed investment, state and local government spending, and residential construction—all of which were important factors boosting the economy in the final months of last year—have lost any of their momentum, and settlement of the dock strike should push net exports up sharply over the near term. Industrial production has continued to move up, the labor markets remain extremely tight, and price increases continue to be excessive.

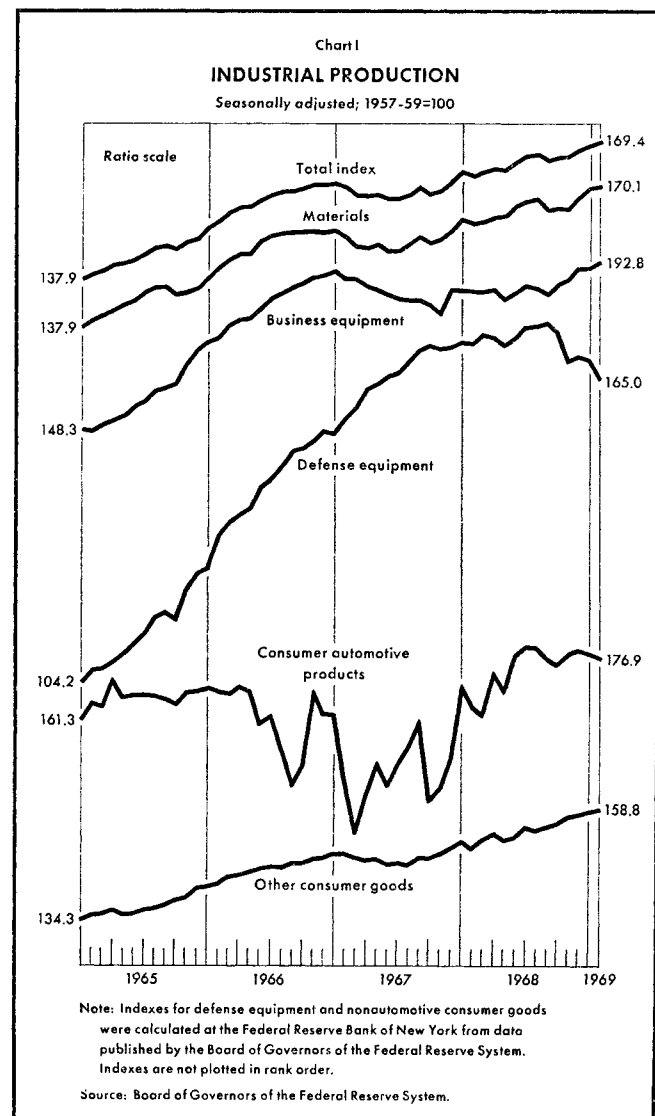
OUTPUT, INVENTORIES, AND CONSTRUCTION ACTIVITY

The Federal Reserve Board's index of industrial production recorded its fifth consecutive monthly gain in January, when the index rose 0.5 percentage point to a seasonally adjusted 169.4 percent of the 1957-59 average (see Chart I). The January increase was, however, more modest than the large advances recorded in each of the final three months of 1968.

The January estimates indicate that production of defense-oriented equipment was sharply below last summer's peak, and this remains true after allowance for a strike at a major aircraft producer during the month. On the other hand, a sizable further gain in business equipment output provided additional evidence that the surge in capital investment which began last summer is continuing.

Materials output rose very little in January and much less than in the preceding four months. The strength in this sector through the past fall and early winter was due in large measure to the rapid recovery of steel production from the low point that followed the labor settlement in that industry at the end of last July. Steel industry

operations now appear to have recovered to a more normal level, however, and are thus providing less thrust to the expansion of total industrial production. Steel industry



output recorded a gain in January of about 2 percent, and it appears that output increased in February by a comparable amount.

The output of consumer goods remained strong in January despite another decline in the production of automotive products. Most household goods, with the exception of television sets, registered healthy gains. The weakening in the automotive sector is reflected in figures on new car assemblies. Auto production slipped to an annual rate of 8.7 million units in January from the preceding month's 8.9 million unit pace, and fell further in February to an annual rate of about 8½ million units. Since dealers' inventories are very high, the industry has recently been curtailing production to realign output with the somewhat reduced auto sales pace that developed last fall.

Total inventories of manufacturing and trade firms registered a further sizable gain in December.¹ Total business sales declined in that month, moreover, and the overall inventory-sales ratio increased to the highest level of the year. The retail trade sector experienced a very large rise in the ratio of inventories to sales. The ratio also increased in manufacturing during December, but in January a strong increase in manufacturers' shipments, together with a small further rise of inventories, brought the ratio for manufacturing back down.

It is, of course, too early to assess the significance of the recent move to higher levels of retail trade inventories relative to sales. Part of the accumulation of stocks in the final months of 1968 was undoubtedly involuntary—i.e., due to a failure of sales to come up to levels expected when earlier inventory buying decisions were made. On the other hand, some of the recent softness of sales may have little longer run significance. This is especially true of the December downturn, in view of the influenza epidemic that swept the country that month. Indeed, according to the advance report retail sales recovered in January, and new auto sales showed renewed strength in February. Total retail sales, however, remain below the peak reached in August of last year.

Although new orders received by all manufacturing firms edged down very slightly in January, they were

well above the levels of most months of last year. New orders received by manufacturers of durable goods actually rose slightly, but this was offset by a decline in orders received by nondurables producers. Shipments of durables increased rather strongly in January but remained a bit below the level of new orders. Thus, the backlog of unfilled orders on the books of durables manufacturers rose further, continuing the uptrend that began last August.

Recent months have witnessed unusually wide swings in housing starts. Although the rate of private housing starts is highly volatile, gyrations of the magnitude of those of recent months are atypical; the number of housing units started rose solidly in November, dropped markedly in December, and then increased steeply in January to a 1.8 million unit annual rate, the highest figure since early 1964. On the other hand, the number of new residential building permits issued, which tends to change more smoothly than starts, showed a fairly consistent, rising trend from last May, but dropped sharply in January, casting some doubt on the significance of that month's steep gain in starts.

EMPLOYMENT, INCOME, AND CONSUMER DEMAND

A boost in the already strong demand for labor has been apparent recently in the resumption of rapid growth in employment and in the labor force as well. Employment advanced by more than 450,000 persons in January, bringing to 1.2 million the total increase since last October when employment growth began to accelerate. At the same time, the civilian labor force has also been growing at an unusually rapid pace. In January it stood at nearly 80 million persons, an increase of more than 1 million since last October. In contrast, there had been a decline in the civilian labor force of 100,000 persons in the June-October period of last year. The recent strong rise in the labor force has of course accommodated some of the accelerated employment gains, but the unemployment rate has nevertheless dropped rather markedly. From 3.6 percent in October, the unemployment rate fell progressively to 3.3 percent in December and held at that fifteen-year low in January.

The strength of labor demand has also been apparent in the number of workers on nonagricultural payrolls. Employment in nonagricultural establishments increased substantially in January for the fourth consecutive month. The sizable January gain, amounting to a quarter of a million persons, was concentrated in the trade and service industries, reflecting both the rapid secular growth of employment in those sectors and, especially in trade,

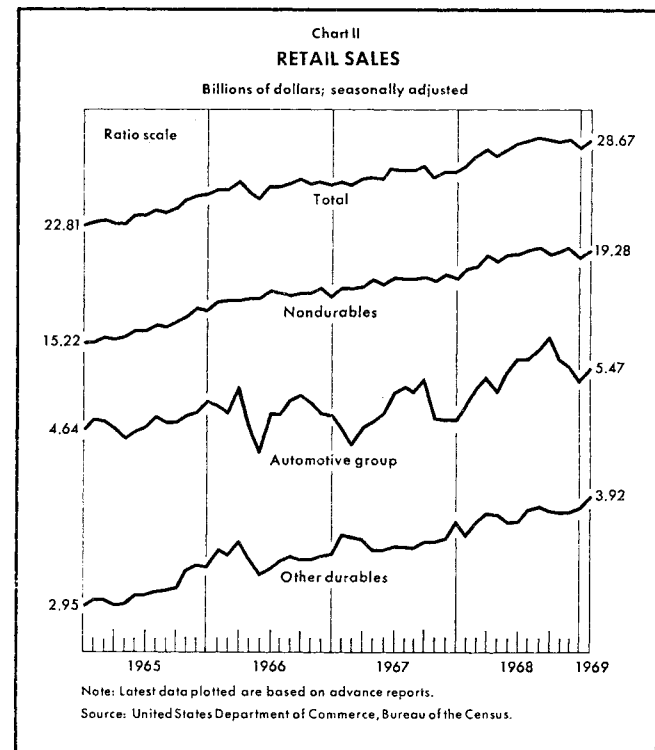
¹The Department of Commerce has revised upward the gross national product (GNP) estimate of fourth-quarter inventory accumulation to an annual rate of \$10.6 billion from the preliminary figure of \$10.0 billion discussed in the February issue of this *Review*. Consumption expenditures and state and local government spending were also revised upward. However, these adjustments were more than offset by a sharp downward revision in net exports, and the estimate of fourth-quarter GNP was reduced by \$0.4 billion.

some recovery from the dampening effects of the flu outbreak in December. The average workweek in manufacturing held steady at 40.7 hours but remained below the high of 41.1 hours set in September.

Recently released figures on labor costs emphasize once again the severity of the inflationary problem that confronts the economy. Labor compensation per man-hour in the private economy increased by 8 percent between the final quarter of 1967 and the corresponding period in 1968, the sharpest over-the-year advance since 1956. Comparing the full year 1968 with the preceding year, the rise in compensation per man-hour was nearly as great, amounting to 7½ percent and the highest since early in the Korean war. The impact on unit labor costs of the swift advance in hourly compensation was softened to a considerable extent, however, by a healthy gain in output per man-hour. Productivity in the overall private economy was up by 3.3 percent in 1968, and unit labor costs thus averaged 4 percent above the preceding year. Although a productivity gain of the size registered in 1968 is considered to be close to the long-run trend, it was due in part to an acceleration of real growth in 1968 following a significant slowing in 1967.

The Commerce Department has reported that personal income rose by only \$1.6 billion in January to a seasonally adjusted annual rate of \$715.1 billion. Although this was the smallest gain in over a year, the size of the increase was trimmed by nearly \$1.8 billion because of the January 1 boost in social security contributions. Moreover, major strikes—of longshoremen at Atlantic and Gulf Coast ports and of some workers at petroleum refineries—tended to slow the increase in aggregate wage and salary disbursements. On the other hand, wages and salaries in the trade sector made a strong recovery after having fallen in December for the first time in over two years, a decline apparently caused by the widespread outbreak of the flu.

Although retail sales volume in January recovered most of the December drop, according to advance data, total sales at retail outlets remained below all other months since June of last year (see Chart II). The weakness of sales in the automotive group has been a dominant factor restraining overall retail volume, but even excluding this component retail sales have shown little movement since last July, when the 10 percent tax surcharge went into effect. Consumer spending in the opening months of 1969 may also be affected by the higher social security contributions that went into effect January 1, and still further by the heavy final payments of 1968 income taxes that are expected to result from the retroactivity of the tax surcharge. The Federal minimum wage was increased for more than 2 million



workers on February 1, but this is expected to supply only a small boost to total disposable income.

In this connection, the Commerce Department's quarterly survey of consumer buying expectations taken in January suggests a continued downward drift in new car sales, unchanged used car sales, and a little softening in expenditures on houses. The only sizable advance indicated by the survey is in purchases of household durables, a finding that is consistent with the recent heavy demand for new apartments and homes. The survey results imply a rate of new car sales in the first half of 1969 close to the pace of the comparable period in 1968, when sales of domestic models averaged a seasonally adjusted annual rate of 8¼ million units. Actual sales volume appears to be moving a bit above this projection. Sales of domestic models were at a seasonally adjusted annual rate of 8½ million units in December and averaged about the same rate in January and February combined. The sales pace reached 8¾ million units in February, but this may have involved some purchases deferred from January when the sales rate dropped to 8¼ million units. This recent performance represents a weakening when compared with the average sales pace of about 9 million units sustained from July through November.

PRICE DEVELOPMENTS

A steep increase in the prices of services lifted the January consumer price index to a new high. While the overall index rose at an annual rate of roughly 4 percent, the services component jumped at a rate of nearly 8 percent. The sharp advance in the services area was the largest in six months and was appreciably above the 5½ percent increase registered in all of 1968. Unusually large gains were reported in the costs of auto ownership and operation—insurance, registration, driver's license fees—and in home ownership costs. Food prices also continued

to climb swiftly, but prices of nonfood commodities edged lower for the second consecutive month. Although the rate of advance in the overall consumer price index has slowed a little in the latest two months, the prospects for a continuation of this slower uptrend are questionable in light of soaring wholesale prices. The January advance for industrial commodities was not only exceptionally large but reflected price increases spread over a very broad range of goods. It is too early to determine whether price rises in February were as widespread, but preliminary data indicate another very substantial advance in industrial wholesale prices.

Fifty-Fourth Annual Report

The Federal Reserve Bank of New York has published its fifty-fourth *Annual Report*, reviewing the major economic and financial developments of 1968.

The *Report* observes that the problem of inflation intensified in 1968, as the economy moved through an unprecedented eighth consecutive year of expansion. Efforts through national stabilization policies to restore reasonable price stability at high employment were frustrated by powerful inflationary expectations. The formulation of monetary policy during the year was complicated by uncertainty regarding the application of fiscal restraint and by a succession of crises in the international financial system.

Inflationary demand pressures in the economy resulted in an alarming deterioration in the international trade balance. Nevertheless, because of favorable capital flows, the overall United States payments position showed a small surplus in 1968, and the swing to surplus served to strengthen the dollar in foreign exchange markets.

In his letter transmitting the *Report* to the member banks in the Second Federal Reserve District, Alfred Hayes, President of the Bank, remarked: "In 1969, we must continue to seek a reduction of inflationary pressures at home and an improvement of our trade position internationally. Monetary policy, as well as fiscal policy, can make a major contribution to the achievement of these goals."

Copies of the *Annual Report* may be requested from the Public Information Department, Federal Reserve Bank of New York, 33 Liberty Street, New York, N. Y. 10045.

The Money and Bond Markets in February

In February, participants in the money and bond markets came increasingly to the view that fiscal and monetary restraint would continue for an extended period, and interest rates rose in the capital markets. The pervasive effects of monetary restraint became more visible, and the new Administration made clear the high priority it accorded to combating inflation. In this context, market participants expected that an extension would be sought in the income tax surcharge currently scheduled to expire on June 30. Also influencing the market were indications that the Treasury would request the Congress to remove the 4¼ percent ceiling on the coupon rates of new Treasury bond offerings.

The banking system remained under considerable pressure during the month as the runoff of large-denomination certificates of deposits (CD's) necessitated continuing adjustments. Bidding for Euro-dollars remained strong, and with the availability of additional funds in this form more limited than in January their rates rose. (The three-month rate on Euro-dollar funds reached 8½ percent bid at the month end.) Banks drew further on their secondary reserves during the month and began selling intermediate- and long-term Government securities as well.

The tone of the money market was quite firm during most of the month. Federal funds transactions were predominantly in a 6¼ to 7 percent range, but some trading occurred at rates exceeding 7 percent. Nationwide reserve availability contracted and member bank borrowings at the Reserve Banks averaged \$836 million in February, virtually unchanged from the relatively high January average level.

In the market for Treasury notes and bonds, yields moved higher on balance in February, with most of the upward adjustment recorded in the second half of the month. Elsewhere in the capital market, a somewhat improved tone emerged in the corporate sector early in the month, partly reflecting the favorable technical position of that market. Renewed caution developed as the period progressed, however, and over the month as a whole yields on corporate bonds rose. In the tax-exempt sector, attention continued to focus upon fading commercial bank demand and yields rose further in February.

Rates on Treasury bills moved lower through most of

the month. Strong demand for shorter term bills from investors fearful of the interest rate outlook was added to reinvestment demand from holders of the \$2 billion of February 15 maturities redeemed during the Treasury's February refunding. Late in the month, however, bill rates moved higher as talk of a possible rise in the commercial bank prime rate increased. Over the month as a whole, most bill rates were little changed on balance.

BANK RESERVES AND THE MONEY MARKET

The tone of the money market was generally firm during the February 5 statement week, and most Federal funds transactions took place in a 6¼ to 6¾ percent rate range. Nationwide reserve distribution, which had been unusually favorable to the large reserve city banks in the latter part of January,¹ continued to favor banks in the central money market at the beginning of February. Consequently, the large New York City banks as a group accumulated a sizable basic reserve surplus and made large net sales of Federal funds. As the period progressed, however, reserve distribution gradually shifted in favor of banks outside the leading money centers. As a result, the basic reserve position of the major reserve city banks deteriorated sharply and they resumed their more characteristic role of net purchasers of Federal funds.

During the February 12 statement period, the market tone was affected by the weekend snowstorm, which paralyzed much of the Northeast and consequently impeded flows of funds, as well as by the Lincoln's Birthday bank holiday which was observed in many money centers on the final day of the period. Despite an expansion in Federal Reserve float following the snowstorm, average nationwide reserve availability during the period contracted by about \$76 million from the preceding week (see Table I), partly as a result of an increase in Treasury deposits at the Federal Reserve Banks. Moreover, reserves con-

¹For details see this *Review* (February 1969), pages 32 and 34.

Table I
FACTORS TENDING TO INCREASE OR DECREASE
MEMBER BANK RESERVES, FEBRUARY 1969

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

Factors	Changes in daily averages— week ended on				Net changes
	Feb. 5	Feb. 12	Feb. 19	Feb. 26	
"Market" factors					
Member bank required reserves	+ 202	+ 158	— 184	+ 335	+ 511
Operating transactions (subtotal)	— 90	— 421	— 274	+ 127	— 658
Federal Reserve float	— 33	+ 65	+ 44	+ 22	+ 98
Treasury operations*	+ 223	— 335	+ 161	+ 112	+ 161
Gold and foreign account	+ 3	— 4	—	+ 4	+ 3
Currency outside banks	— 123	— 188	— 461	+ 194	— 578
Other Federal Reserve accounts (net)† ..	— 161	+ 41	— 18	— 204	— 342
Total "market" factors	+ 112	— 263	— 458	+ 462	— 147
Direct Federal Reserve credit transactions					
Open market instruments					
Outright holdings:					
Government securities	+ 69	—	+ 55	+ 16	+ 140
Bankers' acceptances	+ 1	— 1	—	+ 3	+ 3
Repurchase agreements:					
Government securities	+ 8	+ 146	+ 251	— 308	+ 97
Bankers' acceptances	—	+ 29	+ 65	— 42	+ 52
Federal agency obligations	—	+ 13	+ 15	— 20	+ 8
Member bank borrowings	— 145	+ 50	+ 246	— 285	— 134
Other loans, discounts, and advances.....	—	—	—	—	—
Total	— 67	+ 237	+ 631	— 635	+ 166
Excess reserves	+ 45	— 26	+ 173	— 173	+ 19

Member bank:	Daily average levels				
	Feb. 5	Feb. 12	Feb. 19	Feb. 26	Feb. 26†
Total reserves, including vault cash	27,409	27,225	27,582	27,074	27,322‡
Required reserves	27,207	27,049	27,233	26,898	27,097‡
Excess reserves	202	176	349	176	226‡
Borrowings	747	797	1,043	758	836‡
Free, or net borrowed (—), reserves	- 545	- 621	- 694	- 582	- 610‡
Nonborrowed reserves	26,662	26,428	26,539	26,316	26,486‡
Net carry-over, excess or deficit (—)§	76	94	92	200	116

System Account holdings of Government securities maturing in:	Changes in Wednesday levels				
	Feb. 5	Feb. 12	Feb. 19	Feb. 26	Feb. 26†
Less than one year	- 263	—	- 8,214	- 442	- 8,919
More than one year	—	—	+ 8,479	+ 62	+ 8,541
Total	- 263	—	+ 265	- 380	- 378

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

* Includes changes in Treasury currency and cash.

† Includes assets denominated in foreign currencies.

‡ Average for four weeks ended on February 26, 1969.

§ Not reflected in data above.

Table II
RESERVE POSITIONS OF MAJOR RESERVE CITY BANKS
FEBRUARY 1969

In millions of dollars

Factors affecting basic reserve positions	Daily averages—week ended on				Averages of four weeks ended on Feb. 26
	Feb. 5	Feb. 12	Feb. 19	Feb. 26	
Eight banks in New York City					
Reserve excess or deficiency (—) *....	— 20	— 17	86	43	23
Less borrowings from Reserve Banks	73	91	64	21	62
Less net interbank Federal funds purchases or sales (—)	— 309	514	557	186	237
<i>Gross purchases</i>	1,172	1,633	1,756	1,648	1,552
<i>Gross sales</i>	1,482	1,119	1,199	1,462	1,316
Equals net basic reserve surplus or deficit (—)	217	— 622	— 535	— 164	— 276
Net loans to Government securities dealers	885	629	498	379	598
Net carry-over, excess or deficit (—)†..	35	— 2	— 3	58	22

Thirty-eight banks outside New York City

Reserve excess or deficiency (—)*	55	- 1	32	- 4	21
Less borrowings from Reserve Banks	139	249	418	171	244
Less net interbank Federal funds purchases or sales (—)	1,325	1,580	958	849	1,178
Gross purchases	2,870	3,067	2,762	2,813	2,878
Gross sales	1,545	1,487	1,804	1,964	1,700
Equals net basic reserve surplus or deficit (—)	- 1,409	- 1,831	- 1,344	- 1,024	- 1,402
Net loans to Government securities dealers	244	102	65	35	112
Net carry-over, excess or deficit (—)† ..	- 20	33	16	54	21

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

* Reserves held after all adjustments applicable to the reporting period less required reserves and carry-over reserve deficiencies.

† Not reflected in data above.

Table III
AVERAGE ISSUING RATES*
AT REGULAR TREASURY BILL AUCTIONS

In percent

Maturities	Weekly auction dates—Feb. 1969			
	Feb. 3	Feb. 10	Feb. 17	Feb. 24
Three-month	6.251	6.199	6.092	6.080
Six-month	6.359	6.349	6.268	6.258
	Monthly auction dates—Dec. 1968 to Feb. 1969			
	Dec. 23	Jan. 28	Feb. 20	
Nine-month	6.483	6.195	6.307	
One-year	6.412	6.144	6.234	

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

tinued to flow away from the major money market banks. Against this background, the tone of the money market was quite firm. As the basic reserve positions of the eight large banks in New York City and the thirty-eight major banks in other money centers deteriorated sharply, these banks collectively made larger net purchases of Federal funds and increased their borrowings from the Federal Reserve Banks (see Table II).

In the February 19 statement period, nationwide reserve availability contracted further, largely as a result of a substantial decline in vault cash and an expansion in required reserves, and the tone of the money market was quite taut. The large commercial banks, accordingly, were strong bidders in the Federal funds market where trading was predominantly in a $6\frac{3}{4}$ to $7\frac{1}{4}$ percent range from February 13 through February 18. They also increased their borrowings from the Federal Reserve Banks by \$246 million on a daily average basis during the statement period. On the final day of the statement period, the major New York City banks which had overprovided for their reserve needs, supplied a sizable amount of reserves to the Federal funds market. As a result, the effective rate in that market fell to 5 percent and some trading took place at rates as low as 2 percent.

The money market was firm during the final statement week of the month, but the tautness of the preceding week did not persist. Federal funds traded predominantly in a $6\frac{1}{2}$ to $6\frac{3}{4}$ percent range, the average level of borrowings from the Federal Reserve Banks declined to \$758 million, and average net borrowed reserves eased to \$582 million. In part, the moderation of pressures in the money market reflected both the sizable amount of excess reserves which member banks carried forward from the preceding week (see Table I) and an improvement in the basic reserve position of the banks in the major money centers (see Table II).

Rates on several types of money market instruments were adjusted higher in February. Rates quoted by dealers in bankers' acceptances on paper maturing in ninety days generally rose by $\frac{1}{4}$ percent to $6\frac{3}{4}$ percent bid- $6\frac{5}{8}$ percent offered. Rates on dealer-placed prime four- to six-month commercial paper moved $\frac{1}{4}$ percent higher to $6\frac{3}{4}$ percent offered, and rates on various maturities of directly placed commercial paper increased by $\frac{1}{8}$ percent.

With new CD's at a persisting rate disadvantage compared with competing money market instruments (notably Treasury bills), the outstanding volume of CD's continued to contract. At the weekly reporting banks in New York City, the decline amounted to approximately \$650 million between January 29 and February 26, while CD's outstanding at all weekly reporting banks declined by \$1.1 billion.

At the same time, liabilities of United States banks to their foreign branches rose in February by \$213 million, far short of the much sharper rise recorded in January.

THE GOVERNMENT SECURITIES MARKET

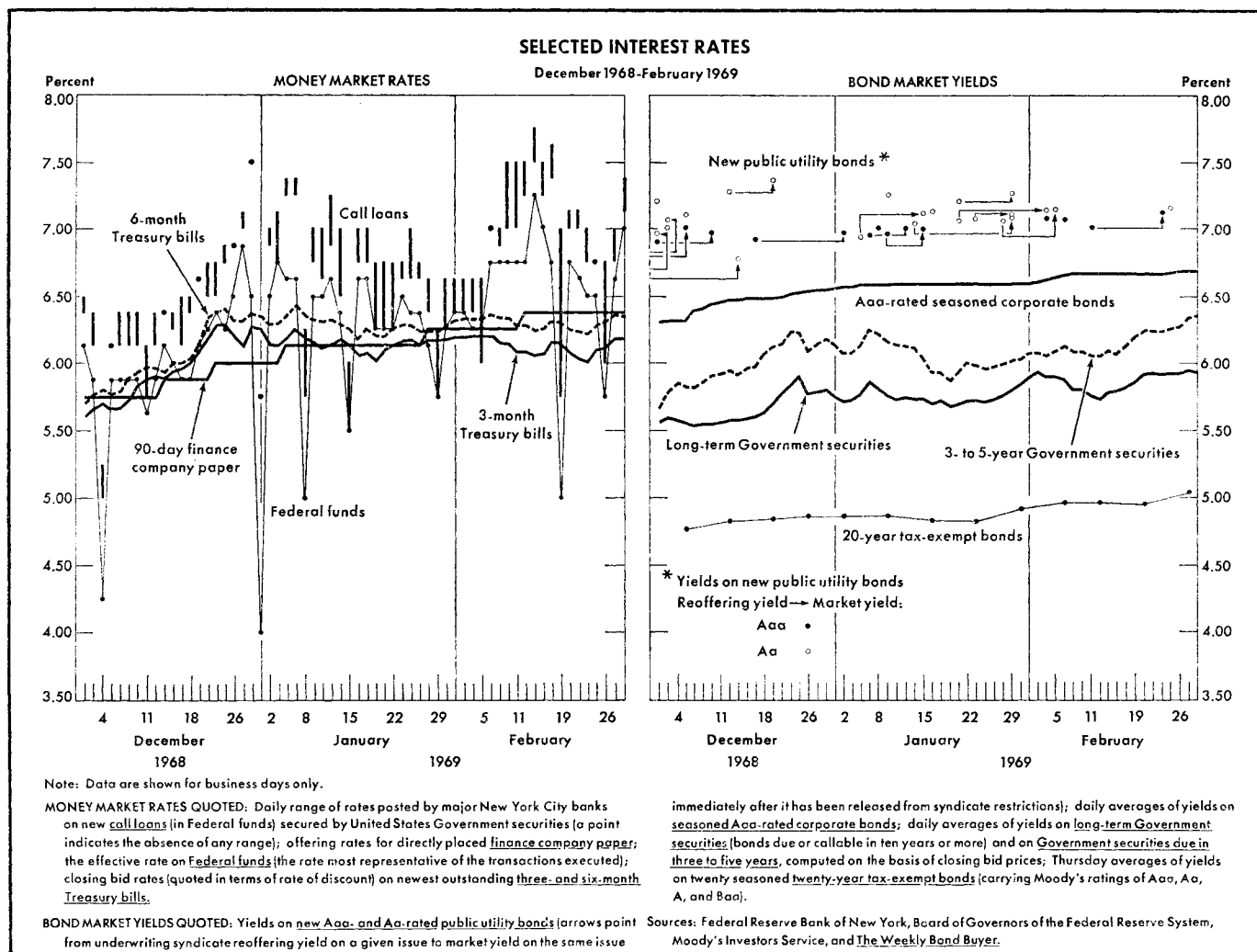
The subscription period for the Treasury's refunding operation occupied the first three business days of February, and during that time activity was subdued in the market for Treasury notes and bonds.² Prices of intermediate-term maturities fluctuated narrowly, as the public accorded the Treasury's offering a lukewarm reception. Prices of longer term issues at first declined rather sharply, when there was some investor switching out of long-term Treasury issues into corporate and Government agency issues, but then quickly rebounded in response to renewed investor demand.

On February 7, the Treasury announced the results of the refunding. Approximately 36 percent of the maturing securities held outside the Federal Reserve Banks and Government accounts was not exchanged for the new notes offered by the Treasury and thus was earmarked for cash redemption. Total subscriptions (including those from both public and official sources) amounted to about \$12.5 billion or about 86 percent of the \$14.5 billion of notes and bonds maturing on February 15. Subscriptions totaled \$8.8 billion for the new $6\frac{3}{8}$ percent notes of 1970 and \$3.7 billion for the new $6\frac{1}{4}$ percent notes of 1976, with only \$885 million of the latter taken by the public.

The attrition was considerably larger than had generally been expected by market participants. In particular, the relatively small amount of public subscriptions for the notes of 1976 implied that the issue would be in scarce supply, and this sparked expanded demand for these obligations (trading on a "when-issued" basis) and for outstanding intermediate-term issues as well. Subsequently, a steady investment demand developed for coupon issues of various maturities. From February 6 through February 13, prices of long-term Treasury bonds generally rose, reflecting both investment demand and the improved tone of the corporate bond market, while prices of intermediate-term Government securities also edged higher. (Associated yield declines are illustrated in the right-hand panel of the chart.)

A more cautious atmosphere emerged in the coupon sector around midmonth. Market participants grew more

²For details of the refunding offering, see this *Review* (February 1969), page 31.



pessimistic about the interest rate outlook as they weighed the possibility of further increases in the discount rate and the prime rate, while also assessing comments from members of the new Administration which suggested the need for rather prolonged monetary and fiscal restraint. Sentiment in the coupon sector was also affected by indications that the Administration would soon ask the Congress to remove the 4¼ percent ceiling on the coupon rate that the Treasury may offer on new bonds. Moreover, the February 27 increase in the British bank rate from 7 percent to 8 percent drew a cautious reaction in the market. Against this background, prices of coupon issues generally drifted steadily lower from February 14 through the end of the month although the relatively strong technical position of the market somewhat limited the extent of the decline.

Overall activity was generally light, but offerings were absorbed by a net investment demand. Prices of longer term bonds suffered relatively large declines, reflecting both some switching out of longer Treasury issues into corporate bonds and outright sales by commercial banks.

Despite the pessimistic climate which generally pervaded most other sectors of the securities market, a relatively strong tone was evident in the Treasury bill sector during most of February as many investors preferred to remain liquid in the face of major market uncertainties. In the first few days of the month, a good investment demand emerged for shorter term bills—which were in scarce supply—and their rates were generally steady to lower. At the same time, however, professional offerings of longer term bills expanded and rates on these obligations tended to edge

slightly higher. After the Treasury's refunding results were released on February 7, rates for all bill maturities moved lower as the unexpectedly large attrition led participants to look forward to sizable reinvestment demand for bills from holders of the maturing coupon issues who had decided not to exchange them for new notes. Bill rates continued to decline through midmonth in response to broad investment demand from various sources, especially public funds and other institutional investors. (See the left-hand panel of the chart.) From midmonth through February 25, rates moved irregularly, with declines outnumbering gains.

On February 19, the Treasury announced that it would auction a \$1 billion "strip" of bills on February 25 for payment on March 3. The offering represented a \$200 million addition to each of five outstanding bill issues maturing from April through August, with subscribers required to take equal amounts of each of the reopened issues. Commercial banks bid aggressively for the strip for which they were permitted to make full payment in the form of credits to Treasury Tax and Loan Accounts. The bill strip was auctioned at an average issuing rate of 5.907 percent. In the closing days of the month, some selling pressures emerged in the bill market and rates edged higher, as banks actively disposed of their awards of the bill strip.

At the regular monthly auction on February 20, average issuing rates on the new nine- and twelve-month bills were set at 6.307 percent and 6.234 percent, respectively, 11 and 9 basis points higher than the average rates at the comparable January auction (see Table III). At the final regular weekly auction of the month, held on February 24, average issuing rates for the new three- and six-month bills were set at 6.080 percent and 6.258 percent, respectively, 9 basis points lower and about unchanged from the average rates established a month earlier.

OTHER SECURITIES MARKETS

In the markets for corporate and tax-exempt bonds, yields on new and recent issues continued to move higher in the opening days of the month amid persisting uncertainty over the future course of interest rates. A new Aaa-rated utility company issue of first mortgage bonds carrying five years of call protection was offered to investors on February 4 at a price to yield 7.07 percent, the highest offering yield ever recorded on a comparable flotation. Nevertheless, investors did not respond enthusiastically to the offering. In both the corporate and tax-exempt sectors, underwriters probed for yield levels which would generate investor interest. Many syndicate

price terminations occurred in early February, and the ensuing price reductions boosted yields 5 to 20 basis points. A continuing concern over the dimensions of commercial bank demand for obligations of state and local governments added to the heavy atmosphere in the tax-exempt market.

A more optimistic tone emerged in the corporate sector during the statement period ended on February 12. Market participants were heartened after investors (particularly public pension funds) accorded an enthusiastic reception to an Aaa-rated utility issue which was offered on February 6 to yield 7.06 percent. This excellent response stood in contrast to the initial apathetic reception accorded a somewhat similar flotation just two days earlier and boosted sales of the earlier issue. The corporate bond sector was also encouraged by the relatively moderate February calendar of scheduled new offerings and by the emergence of a steady investment demand. Against this background, three corporate bond issues with small unsold balances that were released from underwriter price restrictions promptly rose in price, in striking contrast to the price cutting which had generally followed syndicate terminations earlier in the month. In the tax-exempt market, however, attention continued to focus on the shallowness of commercial bank demand and a restrained tone persisted during the February 12 week. Despite minimal new issue activity, dealers made little progress in reducing their inventories of tax-exempt bonds during the period.

Subsequently, although the technical position of the corporate bond sector remained strong, market participants reacted with considerable caution to new assessments of the outlook for domestic economic policy and interest rates. In this more bearish setting, corporate bond yields generally adjusted higher in the second half of February. At the same time, sentiment in the tax-exempt sector continued quite restrained and record yield levels predominated. A record 5.135 percent net interest cost was set for a large issue of new Housing Authority bonds.

At the end of February, *The Weekly Bond Buyer's* yield index of twenty seasoned tax-exempt issues rose to a modern high of 5.04 percent, 13 basis points higher than a month earlier and well above the 4.95 to 4.96 percent levels which had prevailed during the first three weeks of the month. Moody's index for seasoned Aaa-rated corporate bonds closed the month at 6.69 percent, 10 basis points higher than a month earlier. The Blue List of advertised dealer inventories of tax-exempt securities totaled \$569 million at the end of the month as against its January 31 level of \$601 million.

Publications of the Federal Reserve Bank of New York

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