Treasury and Federal Reserve Foreign Exchange Operations*

By CHARLES A. COOMBS

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 intergovernmental 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 existing 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.

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.

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 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 vigorous 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 (—) 1968 I	II	III	IV	Commitments to System on December 31, 1968
National Bank of Belgium				+ 30 — 20	+ 180.5 — 183.0	7.5
Bank of Canada		+250	— 125	— 125		
National Bank of Denmark			+ 25	— 25		
Bank of England	1,050.0	+ 50	+ 545 —1,645	+ 600 — 200	+ 850 — 100	1,150.0
Bank of France			+ 100	+ 390 — 40	+ 275 — 295	430.0
Netherlands Bank			+ 54.7	— 24.9	— 29.8	
Bank for International Settlements (against German marks)	346.0	+ 66 —412	+ 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.

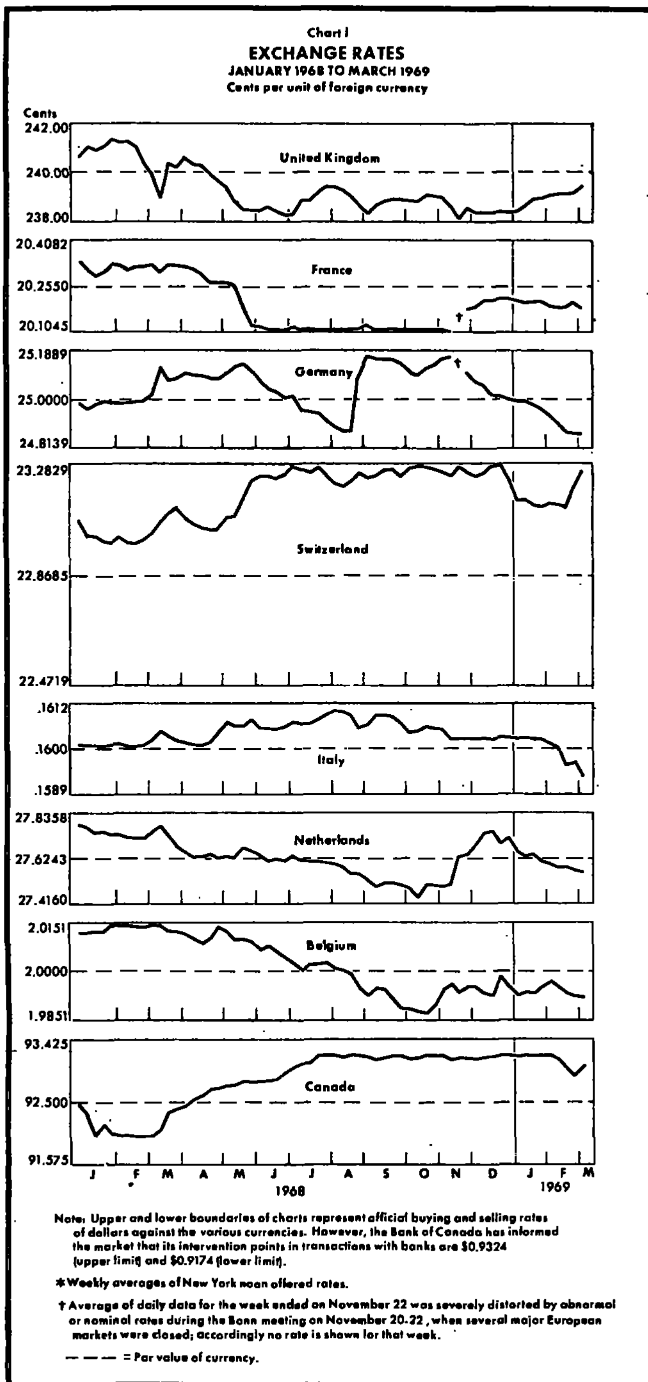
On December 2 the Federal Bank and the Federal Reserve discontinued outright sales of forward marks, concluding that they had served their purpose of encouraging capital outflows and assuring the market that there would be no parity change. The Federal Bank offered instead to do swaps with its banks at improved rates and for a wider range of maturities. Earlier the authorities had dropped their requirement that the proceeds of the swaps be invested 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 multilateral 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 ¼ 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 4½ percent from 3¾ 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 ½ 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 $0.2744¼, 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 ½ 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 4½-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 ½ percentage point to 6½ 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 ½ 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

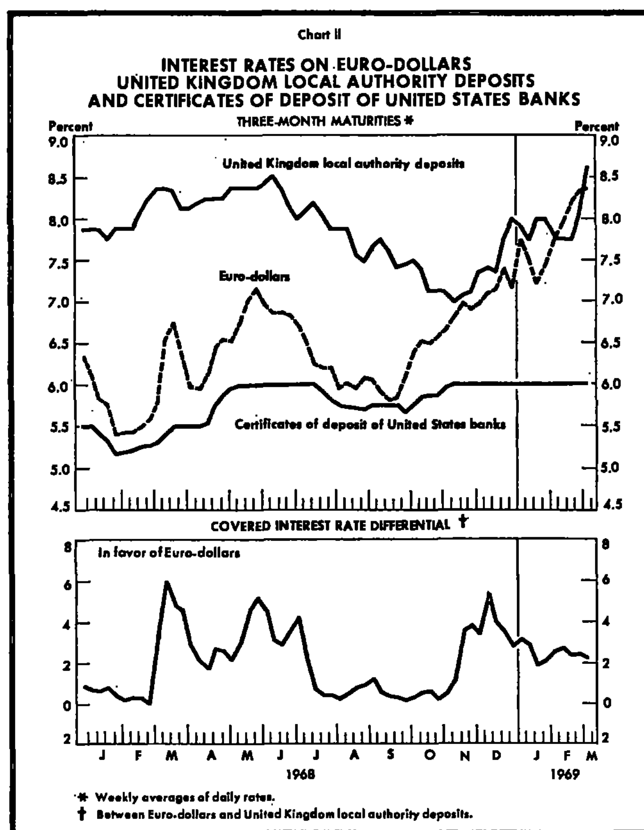
During the second half of 1968 and the first two months of 1969, activity in the Euro-dollar market reached unprecedented levels, but the massive flows of funds through that market were accommodated in an orderly fashion with the assistance of some defensive central bank operations—primarily by the German 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 ¼ percentage point increase in Federal Reserve discount rates on December 18 and the further rise in United States banks' prime loan rates to 6¾ 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 ¼ 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.