Treasury and Federal Reserve Foreign Exchange Operations*

By Charles A. Coombs

The recurrent speculative storms that had swept across the foreign exchanges during the first nine months of 1969 were succeeded during the fall and winter months by a general clearing-away of market fears and tensions. Earlier apprehension that the acute disequilibria in the French and German payments positions might trigger a world financial crisis was relieved by the successive devaluation of the French franc in August and revaluation of the mark in October. The vigorous recovery of sterling from earlier deficits to a position of sustained surplus finally overcame bearish market sentiment toward the pound and encouraged the rebuilding of foreign balances normally held in London. More generally, the activation of the special drawing rights (SDR) agreement, together with the abrupt decline in the free market price of gold, contributed to a strong revival of confidence in the continuing viability of the international financial system.

In this relaxed atmosphere, hedging and speculative positions taken earlier in the year were steadily unwound, most strikingly evidenced in net outflows from Germany of $5 billion during the final quarter of the year. While the United States and the Euro-dollar markets were major beneficiaries of these outflows from Germany, many other currencies that had suffered from earlier hedging on the mark also reacted buoyantly to the unwinding of speculative positions. The swing of the pendulum in the exchange markets was accompanied by a similar swing of creditor and debtor positions in the Federal Reserve swap network and related credit facilities. (See Tables II and III.)

Particularly noteworthy was the remarkable shift in the Bank of England's use of its $2 billion swap line with the Federal Reserve. From a peak commitment of $1,415 million in May 1969, the Bank of England debt to the Federal Reserve declined to $815 million as of the end of July and, after rising to $1,145 million during August and September, was progressively reduced to $650 million at the year-end and finally completely liquidated by February 11, 1970. During this period the Bank of England also effected heavy repayments to other creditors.

As of the end of August 1969, the National Bank of Belgium and the Netherlands Bank were indebted to the System under the swap lines to the extent of $224 million and $109.7 million, respectively. In these two instances the pendulum swung back well beyond center as both the Belgian franc and the Dutch guilder became regarded by the market as possible candidates for revaluation along with the German mark. The resultant influx of funds into Brussels and Amsterdam not only enabled both the Belgian and Dutch central banks to repay all outstanding debt due to the Federal Reserve, but shortly thereafter necessitated System borrowing under the two swap lines to absorb a heavy volume of surplus dollars acquired by each central bank. In the case of the swap line with the National Bank of Belgium, Federal Reserve drawings rose by February 10 to a level of $85 million equivalent, all of which remained outstanding as of March 10, 1970. The flow of funds to the Netherlands was considerably heavier, necessitating not only drawings totaling $300 million equivalent by the Federal Reserve in October 1969 but also a concurrent special swap of $200 million by the United States Treasury. As soon as the Dutch government formally rejected any revaluation of the guilder, the flow of speculative funds reversed itself, enabling the Treasury to liquidate its swap within a week's time. The Federal Reserve swap debt was subsequently reduced by $170 million to $130 million equivalent, which remained outstanding as of March 10

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*This report, covering the period September 1969 to March 1970, is the sixteenth 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.

Although the Swiss franc had remained relatively unaffected by speculation on the mark during the summer months of 1969, a general tightening of liquidity in Switzerland toward the end of September brought an influx of dollars, most of which were absorbed by a $200 million drawing by the Federal Reserve on its swap line with the Swiss National Bank. This debt was paid down by $25 million in November and a further $30 million in December as Swiss francs became available through the market. The remaining balance of $145 million equivalent was liquidated during February 1970 through two transactions effected directly with the Swiss National Bank.

The French franc benefited considerably during the fourth quarter of 1969 from the return flow of funds from Germany and has remained strong since the turn of the year, enabling the Bank of France to make further sizable payments of short-term central bank credits. In connection with these repayments the Bank of France activated its swap line with the Federal Reserve on January 8, drawing $100 million as interim financing of a debt repayment due to Germany; the French drawing on the System swap line was repaid on February 2, and the $1 billion facility reverted to a standby basis. As of March 10, 1970 earlier credits of $200 million extended by the United States Treasury to the Bank of France had been paid down to $95 million.

Table I

FEDERAL RESERVE RECIPROCAL CURRENCY ARRANGEMENTS
March 10, 1970

In millions of dollars

Institution	Amount of facility
Austrian National Bank	200.0
National Bank of Belgium	500.0
Bank of Canada	1,000.0
National Bank of Denmark	200.0
Bank of England	2,000.0
Bank of France	1,000.0
German Federal Bank	1,000.0
Bank of Italy	1,000.0
Bank of Japan	1,000.0
Bank of Mexico	130.0
Netherlands Bank	300.0
Bank of Norway	200.0
Bank of Sweden	250.0
Swiss National Bank	600.0
Bank for International Settlements:	
Swiss francs-dollars	600.0
Other authorized European currencies-dollars	1,000.0
Total	10,980.0

The Italian lira became subject to pressure in September 1969 with the approach of the German elections and, to cover market losses, the Bank of Italy activated its $1 billion swap line with the Federal Reserve on September 23 by drawing $300 million. Following the mark revaluation, the lira recovered as a return flow of funds from Germany got under way, and by November 14 the Bank of Italy was able to repay the $300 million drawn from the Federal Reserve. Later in December the lira once again came under pressure, reflecting the impact of widespread strikes in November, domestic political uncertainties, and the pull of higher interest rates abroad. As a result, the Bank of Italy reactivated its swap line with the Federal Reserve on January 23, 1970, drawing $200 million on that day and making additional drawings in February.

Drawings on the swap lines by the Federal Reserve and its foreign central bank partners amounted to $3.1 billion in 1969. The total of such drawings from the inception of the swap network in March 1962 through the end of 1969 came to $20.5 billion. Over the same period, other credits provided by foreign central banks and the United States Treasury on an *ad hoc* basis totaled more than $11.5 billion. Gold transactions between the United States Treasury and the foreign central banks in the swap network came to $9.0 billion, while drawings on the International Monetary Fund (IMF) by the governments of the same countries amounted to $9.5 billion.

The Federal Reserve swap network was further enlarged in October 1969 by increases from $100 million to $200 million each in the Federal Reserve swap facilities with the Austrian National Bank, the National Bank of Denmark, and the Bank of Norway. The System's overall swap network was thereby raised to $10,980 million (see Table I).

Since the last report in this series, no new operations in the forward markets have been undertaken by either the Federal Reserve or the Treasury. Technical forward commitments in lire assumed by the United States Treasury in earlier years were fully liquidated by the end of November 1969.

From time to time beginning in May 1969 the Federal Reserve bought foreign currencies on a three-month swap basis from the Treasury's Exchange Stabilization Fund in order to free some of the Fund's resources for current operations, primarily gold purchases from foreign countries. These swaps reached a peak of $1 billion early in January, but were fully reversed later that month after

Table II

FEDERAL RESERVE SYSTEM DRAWINGS AND REPAYMENTS UNDER ITS RECIPROCAL CREDIT ARRANGEMENTS

In millions of dollars equivalent

Transactions with	System swap drawings outstanding on January 1, 1969	Drawings (+) or repayments (−)					System swap drawings outstanding on March 10, 1970
		1969				1970	
		I	II	III	IV	January 1-March 10	
National Bank of Belgium					+ 55.0	+ 30.0	85.0
German Federal Bank	112.1	−112.1			+300.0 −170.0		130.0
Netherlands Bank		+ 40.0	− 40.0				
Swiss National Bank	320.0	−280.0	+100.0 − 45.0	−95.0	+200.0 − 55.0	−145.0	
Total	432.1	+ 40.0 −392.1	+100.0 − 85.0	−95.0	+555.0 −225.0	+ 30.0 −145.0	215.0

the United States Treasury had monetized $1 billion of gold previously held by the Exchange Stabilization Fund.

During the period under review, the United States Treasury redeemed foreign currency securities valued at a total of $850.6 million equivalent. In October the Austrian National Bank encashed prior to maturity the remaining $25.1 million equivalent note denominated in schillings (see Table IV). In November the German Federal Bank encashed prior to maturity four mark-denominated notes valued at $199.6 million equivalent and, in January, four notes valued at $500.5 million equivalent issued to it under the 1967 and 1968 agreements to neutralize the balance-of-payments costs of United States military expenditures in Germany. In January 1970, the Treasury redeemed at maturity a lira-denominated note for $125.4 million equivalent held by the Bank of Italy. As a result of these transactions, and taking into account certain valuation changes following the German mark's revaluation, total United States Treasury foreign currency-denominated securities outstanding declined from $2.2 billion to $1.4 billion equivalent during the period.

GERMAN MARK

During 1968 there were recurrent rumors of imminent revaluation of the mark as Germany continued to show a very large surplus in its balance of payments on current account. Although the current-account surplus was offset by an even larger outflow of long-term capital, the markets remained apprehensive that the outflow could not be sustained and that German competitive strength eventually would force a mark revaluation. These fears culminated in a huge rush of funds into Germany in November 1968, but speculation receded in the face of the determined refusal by the German government to revalue the mark. Reversal of the massive influx of funds took some time, but by early 1969 German monetary reserves were back to their pre-November 1968 level and the volume of outstanding market swap commitments of the German Federal Bank had been significantly reduced.

During the first quarter of 1969 the outflow of funds from Germany continued unabated, as the authorities pursued a policy of monetary ease at a time when Euro-dollar rates were rising sharply. In addition to the substantial flow into the short-term Euro-dollar market, long-term capital exports rose to record levels, as foreign borrowers flooded the German capital market with loan demands and securities issues in response to the relatively low borrowing costs in Germany.

By early April, however, congestion in the capital market was becoming severe and the West German Capital Market Committee acted to space out issuance of securities by foreign borrowers. With capital outflows dropping sharply, the steady decline in German reserves came to an end. Moreover, the gradual shift in official policy toward restraint aroused concern that reliance on monetary means to curb inflationary pressures might result in reflows of funds to Germany and consequent renewed buying pressure on the mark. The 1 percentage point jump to 4 percent in the Federal Bank's discount rate on April 18 pointed up this potential dilemma inherent in official efforts to avert domestic inflation while avoiding internationally disrupti shifts of funds into Germany. Late in April, demand for marks rose sharply with the approach of the referendum on which General de Gaulle had staked his presidency. (See Chart I.) The German Federal Bank immediately resumed mark swap operations, however, and thereby succeeded in rechanneling to the international money markets most of the $500 million taken in during this period.

The market atmosphere changed dramatically overnight, however, following reports that German official circles might be willing to consider a mark revaluation as part of a multilateral realignment of parities. Demand for marks soared as firms with commitments in marks rushed to hedge them, commercial payments leads and lags began to swing heavily in favor of the mark, and outright speculation began again. Between April 30 and Friday, May 2, the Federal Bank purchased over $850 million.

Speculative pressures built up on an even more massive scale during the following week. Frenzied speculation induced huge shifts of funds to Germany, exerting strong pressure on the Euro-dollar market and dangerously straining the international reserves of some of Germany's trading partners. The speculation did not halt until the German government announced late on May 9 that it would not revalue the mark and that supporting measures would be announced in a few days. By then the exchange markets had witnessed the heaviest flow in international financial history. The speculative onslaught between the end of April and May 9 increased German monetary reserves by some $4.1 billion—including $2.5 billion on May 8 and 9 alone—to a record level of $12.4 billion.

The exchange markets began returning to normal following the German government's decision, which was backed up by an official communiqué from Basle declaring that agreement had been reached among the central banks on steps to recycle the speculative flows. Thereafter, there was a large outflow of funds from Germany which continued through early June, as Euro-dollar rates moved higher and as the Federal Bank resumed swap operations. A tightening of liquidity conditions in Germany around the mid-June tax date temporarily checked the outflow, which resumed toward the month end and continued into early July. By then nearly $3 billion had returned to the international markets.

The devaluation of the French franc on August 8 introduced new uncertainties and triggered a fresh rush of

Table III

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

In millions of dollars

Banks drawing on Federal Reserve System	Drawings on Federal Reserve System outstanding on January 1, 1969	Drawings (+) or repayments (−) 1969				Drawings on Federal Reserve System outstanding on December 31, 1969
		I	II	III	IV	
Austrian National Bank			+ 50.0	− 50.0		
National Bank of Belgium	7.5	+ 74.0 − 58.5	+ 195.0 − 104.0	+ 244.0 − 154.0	− 204.0	
National Bank of Denmark		+ 25.0 − 25.0	+ 100.0 − 100.0			
Bank of England	1,150.0	− 50.0	+ 465.0 − 540.0	+ 330.0 − 255.0	− 450.0	650.0
Bank of France	430.0	+ 225.0 − 194.0	− 461.0	+ 65.0 − 65.0		
Bank of Italy				+ 300.0	− 300.0	
Netherlands Bank			+ 82.2	+ 109.7 − 82.2	− 109.7	
Bank for International Settlements (against German marks)	80.0	+ 51.0 − 131.0	+ 25.0 − 25.0	+ 4.0 − 4.0	+ 62.0 − 62.0	
Total	1,667.5	+ 375.0 − 458.5	+ 917.2 − 1,230.0	+ 1,052.7 − 610.2	+ 62.0 − 1,125.7	650.0

Table IV

OUTSTANDING UNITED STATES TREASURY SECURITIES FOREIGN CURRENCY SERIES

In millions of dollars equivalent

Issued to	Amount outstanding on January 1, 1969	Issues (+) or redemptions (−) 1969 I	II	III	IV	1970 January 1-March 10	Amount outstanding on March 10, 1970
Austrian National Bank	50.3			−25.2	−25.1		—0—
German Federal Bank	1,176.3	−50.0*	+124.3 −49.9		−199.6	−500.5	519.6†
German banks	125.1						125.1
Bank of Italy	225.6			−100.2‡		−125.4	—0—
Swiss National Bank	444.7	+25.4	+39.5	+30.0			540.6
Bank for International Settlements§	207.7	+49.7		−53.2			204.4
Total	2,229.7	+25.2	+113.8	−148.6	−224.7	−625.9	1,389.7†

Note: Discrepancies in totals are due to valuation adjustments and to 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.
† Including certain revaluation adjustments.
‡ Security issued in favor of Ufficio Italiano dei Cambi.
§ Denominated in Swiss francs.

demand for marks. The Federal Bank once again purchased dollars, but the buying pressures were not sustained and the authorities were able to swap back to the market a substantial part of the inflow.

The market then remained quiet for a few weeks but, as the date of the German elections approached, there was sizable covering of foreign currency positions by Germans as well as mark hedging by foreigners, and the German Federal Bank purchased increasing amounts of dollars during the course of September. The Federal Bank was simultaneously selling dollars on a swap basis but on September 18, after such sales had reached $0.7 billion over a ten-day period, the Federal Bank raised its swap rate, thus bringing to a virtual halt the covered movements of German funds into the Euro-dollar market. Although anxious to encourage a reflow of funds, the authorities felt that the market swaps were again beginning to be used to finance speculative purchases of marks. The spot inflow continued unabated, however, and by September 24, the Wednesday before the election weekend, the Federal Bank had purchased $1.5 billion in an increasingly active market.

After the close of the Frankfurt market on that day, the German authorities, at the suggestion of the Federal Bank, announced their decision to suspend official foreign exchange dealings until after the elections, thereby forestalling an influx of funds into Germany that might well have approached the massive proportions of the two preceding crises—in November 1968 and May 1969. The mark continued to be traded that afternoon in New York and on Thursday and Friday in all international exchanges, but activity was limited. With no official intervention and with conflicting rumors swaying the market, the rate moved above its ceiling of $0.2518⅞ to as high as $0.2570 on Thursday, September 25 (see Chart II).

The election returns, which came in Sunday night, showed that no party had won a parliamentary majority. Negotiations were promptly undertaken, however, by the Social Democratic and Free Democratic parties to form a coalition government, which would presumably favor revaluation. Against this political background, the Federal Bank reentered the market on Monday morning, September 29, and was immediately flooded with $245 million in the first hour and a half of trading. At that point the German government accepted a recommendation by the Federal Bank that the mark be permitted to "float" temporarily—by suspension of intervention at the ceiling.

The mark rate immediately rose above the ceiling and within a week—by early October—had reached a premium of about 6¾ percent; it advanced more slowly thereafter to a premium of some 7¼ percent by midmonth and then fluctuated narrowly around that level. Despite continuing nervousness, the market adapted to the change circumstances satisfactorily as two factors combined to ensure orderly conditions during the transition period.

First, by October 2 it had become reasonably clear that a Social Democratic-Free Democratic coalition government would take office when the Bundestag reconvened on October 21 and would revalue the mark shortly thereafter. Thus, the main question in the market became the size, rather than the possibility, of a parity change. And even on this score there was little diversity of views in the market, with traders widely expecting the new parity to be set at $0.27027 (DM 3.70).

Second, the German Federal Bank exerted a strongly stabilizing influence by standing ready each day to buy marks at rates slightly below those prevailing in the market, thereby in effect placing a floor just below each successive advance of the rate. Since the mark was technically weak at the time because of the withdrawal of foreign funds which was already under way, there could have been wide fluctuations in the spot rate and repeated departures from the longer term equilibrium rate had the Federal Bank not stood ready to prevent disorderly fluctuations. The Federal Bank's dollar sales in these operations varied widely from day to day, but amounted to $1 billion by the time the new parity was fixed.

On Friday, October 24, the German government revalued the mark by 9.3 percent to $0.2732¼. As had been expected, it also eliminated the special border-tax adjustments that had been introduced in November 1968 to make exports more expensive and imports cheaper and that had been temporarily suspended on October 11, 1969. The revaluation was larger than had generally been anticipated, thus decisively removing the mark from the realm of speculation while setting into action economic forces that should tend to foster both internal and external equilibrium. The move was well received by the market, which quickly became convinced that a period of much greater calm would ensue.

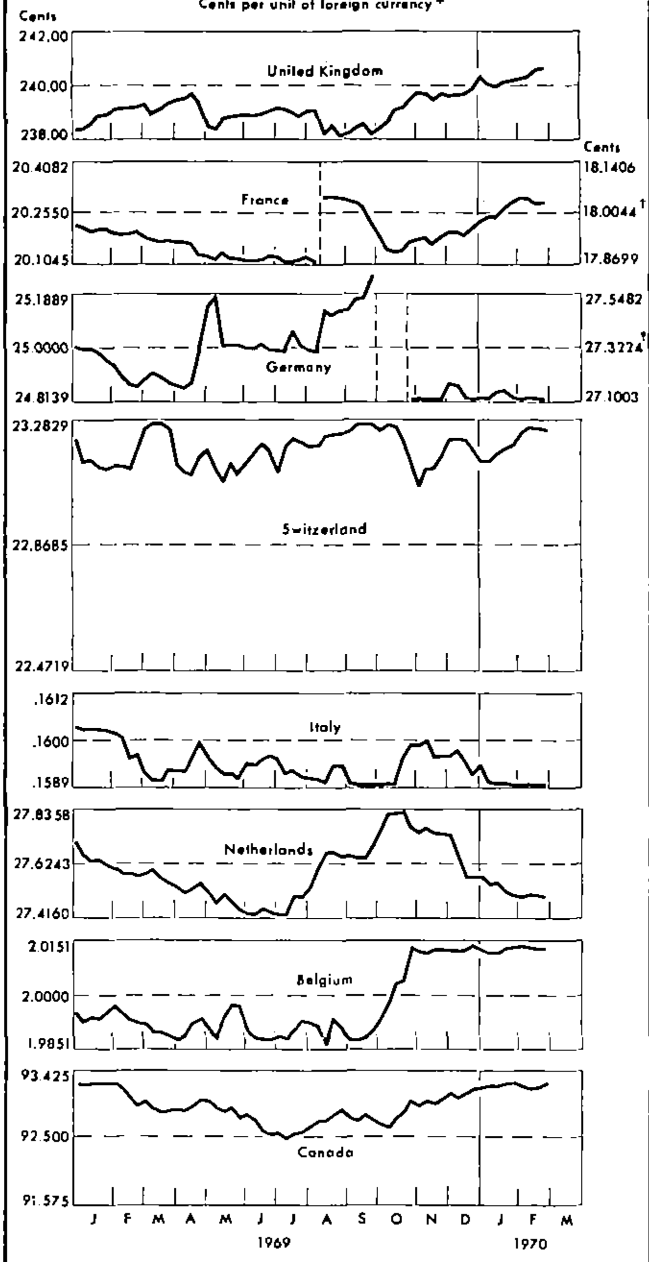
The German mark traded at its new floor of $0.2710 when the market opened on Monday, October 27, and, apart from a short-lived rally in early December, remained there through the end of the year while the substantial positions built up in September and during earlier periods were being unwound. Moreover, with interest rates lower in Germany than abroad, foreign firms made large drawings on credit lines established with German banks earlier in the year. Consequently, there were extremely heavy dollar sales by the Federal Bank. By the year-end, such sales totaled more than $6½ billion (including the $1 billion sold during the period when the mark was permitted to float) but were partly offset by about $1½ billion in maturing forward contracts. The net outflow of $5 billion

Chart I

EXCHANGE RATES

JANUARY 1969 TO MARCH 1970

Cents per unit of foreign currency*



Note: Upper and lower boundaries of charts represent official buying and selling rates of dollars against the various currencies. However, the Bank of Canada has informed the market that its intervention points in transactions with banks are $0.9324 (upper limit) and $0.9174 (lower limit).

* Weekly averages of New York noon offered rates.

— — — — Par value of currency.

† As of August 10, 1969.

‡ As of October 26, 1969.

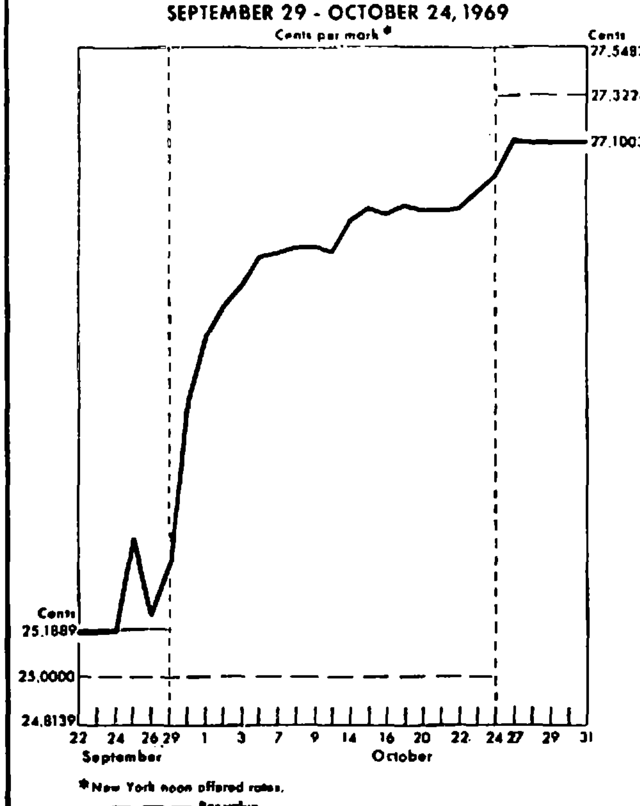
created both internal and external problems. Domestically, the authorities were not averse to having some additional pressure exerted on liquidity, since this reinforced their policy of monetary restraint, but they were anxious to avoid the development of too severe or abrupt a squeeze. From an international point of view, a considerable reflow of capital was desirable, since it would help rebuild the reserves of other countries, but the actual size of the reflow was of such a magnitude as to reduce sharply the Federal Bank's holdings of liquid dollars.

To provide some relief to German commercial banks from the liquidity-tightening effects of the outflow, effective November 1 the Federal Bank reduced minimum reserve requirements by 10 percent for resident deposits and 30 percent for nonresident deposits. The bank also eliminated the special 100 percent marginal reserve requirement that had been imposed earlier on foreign deposits; reserve requirements against nonresident liabilities were thus again brought into line with those applying to domestic liabilities. Credit conditions continued to tighten, however, as the outflow persisted, and commercial banks were forced to borrow heavily from the Federal Bank. When year-end stringencies began to add to the pressure, the Federal Bank announced on December 4 that reserve requirements would be lowered by another 10 percent, but for the month of December only. At the same time, to discourage both domestic credit expansion and capital outflows, the Federal Bank raised its "Lombard" rate on secured advances by 1½ percentage points to 9 percent, thus widening the spread between that rate and the discount rate (which had been raised to 6 percent on September 11) to 3 percentage points, an unusually large amount. Furthermore, in mid-December, the authorities eliminated the prohibition against payment of interest by German banks on foreign-owned deposits, which had been designed to discourage inflows of short-term funds.

On the external side, in financing the huge outflow of funds, the Federal Bank had used up most of its liquid dollar holdings by mid-November, although total official reserves remained very large. As a consequence, the German authorities encashed in advance of maturity four mark-denominated United States Treasury notes totaling DM 800 million. The Treasury purchased the necessary marks directly from the German Federal Bank against dollars. In addition to the dollars acquired in this transaction, Germany had recourse to its creditor position within the IMF—drawing $540 million on November 26, and mobilizing an additional $550 million on December 9 representing its claims under the General Arrangements to Borrow. There were further heavy outflows during the second half of December, and Germany sold $500 million of gold to the United States Treasury on December 29. In the first half of January, furthermore, the Federal Bank encashed in advance of maturity four 4½-year mark-denominated United States Treasury securities totaling DM 2 billion that had been issued to it under the 1967 and 1968 agreements to neutralize the balance-of-payments costs to the United States of maintaining military forces in Germany. The Treasury again acquired the marks through direct purchases from the Federal Bank, which used the dollars to build up its liquid balances.

Germany's reserve losses were very heavy in December, as United States and European corporations, which had transferred funds to Germany earlier in 1969 for investment in instruments maturing prior to the end of the year, repatriated those funds in order to meet balance-of-payments targets or year-end needs. Moreover, there were exceptionally large takedowns of long-term credits from German banks. After such year-end positioning had been completed and with the sharp decline in Euro-

Chart II
GERMAN MARK
SEPTEMBER 29 - OCTOBER 24, 1969



dollar rates, the outflows from Germany came to an abrupt halt. The mark then firmed and generally traded above its floor in January, although it eased slightly in February, moving close to the floor by the month end. During this period the Federal Reserve built up its mark balances. In early March, the mark strengthened in anticipation of a further tightening of German monetary policy. The spot rate then jumped sharply on March 6, when the Federal Bank announced a 1½ percentage point rise in its discount rate to 7½ percent and a ½ percentage point rise in its "Lombard" rate to 9½ percent.

STERLING

In 1969, the United Kingdom's balance of payments on current and long-term capital accounts at last turned from deficit to surplus. It was not until late autumn that this improvement was reflected in market sentiment, however, since the underlying demand for sterling that set in early in the year was repeatedly swamped by bouts of heavy selling during the periods of speculative activity in the German mark and French franc.

Although the United Kingdom's basic balance of payments remained in small deficit during the first quarter, seasonal strength in the exports of the overseas sterling area enabled the Bank of England to make substantial market gains. The British authorities used the dollar inflow to meet repayment obligations to the IMF and to begin repaying outstanding shorter term indebtedness. By early April, the Bank of England had reduced its drawings from the Federal Reserve from $1,150 million to $950 million. Later in April, sterling weakened as the French constitutional referendum approached, but there was no large-scale selling and official support costs were modest.

Just as the market was beginning to regain its equilibrium, a new wave of speculation on possible parity realignments was unleashed by reports of German official willingness to consider revaluing the mark as part of a broader readjustment of parities. As funds flowed from virtually every major center into Germany at the beginning of May, sterling was particularly hard hit, with the familiar buildup of selling pressure in advance of the weekends. Over ten days of hectic speculation, Bank of England support costs in the spot market were very large, while forward sterling discounts widened sharply.

This episode, of course, interrupted the progress the United Kingdom authorities had been making in reducing their external indebtedness, and the Bank of England had to draw on the swap line with the Federal Reserve to help cover market losses. At their peak, swap drawings reached $1,415 million, but sterling had been very heavily oversold and rebounded sharply following the German government's rejection of a revaluation of the mark on May 9. During the remainder of May and through July the Bank of England was able to make sizable reserve gains despite the upsurge of interest rates in the Euro-dollar market.

The reserve gains once again were used to make repayments of debt under various international credit lines. By the end of July the Bank of England had succeeded in reducing its outstanding drawings from the Federal Reserve to $815 million. In addition, during May and June the United Kingdom made a large scheduled repayment to the IMF and liquidated the bulk of the credit still outstanding under the 1968 sterling balances arrangement. On the other hand, the Bank of England obtained new credit from the German Federal Bank under a recycling arrangement designed to neutralize part of the speculative flow from the United Kingdom into Germany, and drew $500 million from the IMF under a new standby facility.

The market remained nervous, however, and there were a few selling flurries during the summer months. In these circumstances, the devaluation of the French franc on August 8 brought renewed speculation that abruptly halted the Bank of England's gains. Both spot and forward sterling rates fell sharply, and pressures became substantial on August 13, with the release of figures showing an enlarged British trade deficit. Heavy support of the spot rate was required for a few days, and the Bank of England drew $160 million on its swap line with the Federal Reserve. But more sterling had been sold than the market could deliver, and once again the Bank of England quickly recouped a significant part of its losses. Nevertheless, the underlying tone of the market remained pessimistic and, once the cash squeeze had ended, sterling again drifted down close to its floor and required modest support. At the end of August, drawings on the swap line stood at $975 million.

This atmosphere persisted into early September and, on September 2 and 3, the Bank of England again drew on its swap line with the System. Thereafter, however, sterling recovered strongly, particularly following the release of data indicating that the United Kingdom's underlying balance of payments had been in substantial surplus during the second quarter. The approach of the German elections brought sterling under modest pressure, but the Bank of England had to make only a small additional drawing on its Federal Reserve swap line, bringing the total outstanding to $1,145 million. When the German mark was allowed to appreciate, sterling moved up smartly and the Bank of England resumed its dollar purchases. The bank then made repayments on the swap line, reducing drawings outstanding to $1,100 million at the end of September.

The recovery continued throughout October, sustained by oil company purchases of sterling for tax and royalty payments, by the announcement of the second consecutive monthly trade surplus, for September, and by the rise in the market value of the German mark (which made further speculation in marks unattractive and induced some profit taking). The sterling spot rate reached the $2.39 level by mid-October, for the first time since early August; it rose further in the second half of the month and fluctuated just below parity during most of the remaining two months of the year. At the same time forward sterling discounts narrowed sharply, the three-month rate moving down to under 1 percent per annum from a range of 6 to 9 percent in August-September. The much improved tone of the market reflected a new confidence in the basic soundness of Britain's balance-of-payments position, a belief that was bolstered by continued monthly trade surpluses and reserve gains as well as by the announcement that, in the third quarter, the United Kingdom had achieved a second consecutive quarterly surplus in its basic balance. The renewed confidence led to a strong reversal of the unfavorable shift in commercial leads and lags that had occurred in late summer, and enabled sterling to remain firm even toward the year-end, when the very high levels to which Euro-dollar interest rates had advanced were exerting a considerable pull.

Euro-dollar rates dropped sharply in the last two days of December, and sterling moved above par for the first time since April 1968. The spot rate dipped slightly in early January, when the market became worried by a wave of very large wage demands, but rose above par again as short positions were being covered and funds began to move into the London money market. During the second half of January and throughout February and early March, a period of seasonal strength, sterling advanced further in widespread and sustained demand, reaching a high of $2.4086 on March 4.

With this strong undertone in the market, the Bank of England was able to purchase dollars throughout the fourth quarter of 1969 and in the first two months of this year. Although the United Kingdom's reserves were allowed to increase moderately, the bulk of the reserve gain was used to repay debts. Thus, during the fourth quarter the Bank of England reduced its swap drawings on the Federal Reserve by $200 million each in October and November and by an additional $50 million in December, bringing outstanding drawings down to $650 million at the end of 1969. These drawings were fully liquidated in early 1970 through repayments of $300 million in January and of $350 million in February, thereby restoring the $2 billion swap line to a fully available standby basis for the first time since July 1968. Certain other short-term credits extended to the Bank of England by the United States Treasury still remain outstanding. During this period the Federal Reserve and the Treasury received scheduled repayments totaling $156 million of British borrowings associated with the first sterling-balances arrangement of June 1966. Very substantial debt repayments were also made to other creditors. In view of the exceptionally strong performance of sterling during recent months, the Bank of England on March 5 cut its discount rate by ½ percentage point to 7½ percent.

FRENCH FRANC

The 11.1 percent devaluation of the French franc on last August 8 was greeted with relief in the foreign exchange markets, which had been repeatedly rocked by speculation against the franc since the events of May 1968. During the earlier months of 1969 the franc had been under heavy pressure, as lack of confidence in the franc and excess demand in the economy led to a rapidly rising trade deficit as well as to a smaller but continuing outflow of capital. The situation was aggravated, moreover, by political uncertainties and labor unrest. A much calmer atmosphere had set in early in the summer, as the political crisis was resolved and the labor difficulties were held in abeyance over the vacation period; but the market remained pessimistic about France's underlying payments position, and the franc stayed close to its floor.

The devaluation, which was to be backed up by a further tightening of economic policy, was therefore welcomed as attacking the payments problem at its root. More generally, the size of the devaluation was judged—by the market as well as by the authorities of other countries—to be within the limits that could be accommodated by the existing framework of exchange rates. Moreover, at the end of August the French government announced that it had $1.6 billion of international credits available and was applying to the IMF for a facility of $985 million. In early September the authorities strengthened their austerity program with further curbs on consumer credit, measures to encourage savings, and substantial cuts in public spending. Finance Minister Giscard d'Estaing declared that the new measures were designed to bring the French trade balance into equilibrium by July 1, 1970.

These measures at first met with a rather lukewarm reception in the exchange market, since even more severe action had been expected, and the French franc tended to weaken early in September in both spot and forward markets. It came under increasing pressure later that month as several major strikes and renewed labor militancy added to the uncertainties generated by the approaching German elections, and by mid-September the spot rate had declined below par. The franc remained under pressure through mid-October—even though the German mark had been allowed to appreciate considerably above its old ceiling—because the market remained disturbed by France's large current-account deficit and by the labor situation. As a consequence, the Bank of France had to provide substantial support to the spot market throughout this period. On September 25 the Bank of France reactivated its swap line with the Federal Reserve, drawing $65 million to help cover recent market losses. This credit was repaid the following day with part of the initial $500 million takedown on France's standby agreement with the IMF.

A clear improvement got under way after mid-October. By the end of the month the spot franc was firmer and—although forward discounts remained relatively wide—the Bank of France was purchasing dollars almost every day. While reflows of funds from Germany provided the initial strength, it is now clear that the firming of the spot franc reflected the improved underlying situation as well as both tight domestic credit conditions and a change in market sentiment. Several measures underscored the French authorities' resolve to slow the growth of domestic demand. The Bank of France on October 8 raised its discount rates by 1 percentage point to exceptionally high levels—8 percent for the basic rate and 10½ percent for the penalty rate—thus signaling even firmer monetary restraint. Also early in October, the government approved a very tight budget for 1970, providing for virtually no increase in expenditures in real terms and for a shift from a sizable deficit in 1969 to a small surplus in 1970. On November 5 the National Credit Council extended the ceiling on bank credit to the end of June 1970 and placed ceilings on medium-term and mortgage credits.

This significant stiffening of French economic policy was well received by the market and the atmosphere was also improved by Finance Minister Giscard d'Estaing's reaffirmation of his confidence that France's trade deficit would be eliminated by mid-1970. The release of trade figures that showed considerable progress in October, November, and December reinforced that forecast.

Benefiting from the shift in sentiment, as well as from the very taut credit conditions in France, the spot franc remained firm in November and the first half of December while forward rates strengthened markedly. The franc rose sharply toward the close of the year, bolstered by corporate purchases for year-end needs. In November and December the Bank of France more than recouped its losses of the previous two months and used the major portion of these gains to repay short-term international debts and maturing foreign exchange deposits of French commercial banks.

The upswing in the spot rate continued into the new year, as the pull of the Euro-dollar market lessened, domestic credit conditions were kept tight, and commercial demand continued strong. Even though the franc had exhibited sustained strength for some time, the authorities maintained their policy of domestic restraint. The franc reached parity in January, and traded above that level through the end of the period under review.

The Bank of France continued to purchase dollars in January and February, and again used the bulk of these market gains to reduce foreign official indebtedness and foreign exchange deposits of French commercial banks. In connection with these repayments, the Bank of France activated its swap line with the Federal Reserve on January 8, drawing $100 million as interim financing of a debt repayment due to Germany. Additional repayments of foreign official assistance were made with the proceeds of the final drawing of $485 million on February 2 under France's standby arrangement with the IMF. The French drawing on the System line was repaid, and the $1 billion facility reverted to a standby basis. Included also was a repayment of $70 million to the United States Treasury, reducing the commitment to $130 million. In early March, a further $35 million repayment brought the debt down to $95 million. Thus, partly on the basis of the IMF drawings but also because of the improved performance of the franc in recent months, France has been able to liquidate a substantial volume of short-term debt in foreign exchange. Moreover, the Bank of France added to its official reserves, bringing them to $3,957 million at the end of February, some $365 million above the low point last July prior to the devaluation.

ITALIAN LIRA

After five years of surplus, the Italian balance of payments moved into deficit in 1969. The deficit stemmed from a sharp rise in capital outflows rather than from a deterioration of Italy's competitive position in world markets. Net capital outflows reached $2.8 billion in 1969, fully two thirds of which moved abroad through the export of Italian bank notes. Political uncertainties and labor unrest, especially in the second half of the year, spurred withdrawals of foreign and domestic funds; the upward surge of interest rates in the Euro-dollar and Euro-bond markets resulted in heavy outflows of funds from Italy; and, as in earlier years, Italian savings were attracted by the broad range of financial instruments available in foreign money and capital markets, as well as by the anonymity which foreign placements provide. In addition, the Italian lira—like many other currencies—was subjected to heavy selling during each bout of speculation on the German mark.

To curtail the outflow of funds and protect official reserves, the Italian authorities took a number of steps during the first half of the year. Italian banks were asked to repatriate funds by midyear, long-term investment abroad was restricted, and the authorities moved to reduce excess domestic liquidity and to align Italian interest rates more closely with those abroad.

The cumulative impact of these measures brought the lira rate above par by late April, and the Bank of Italy purchased some dollars. The recovery ended, however, with the new eruption of mark revaluation fears. Italian residents joined the speculative rush for marks and also sold lire in order to cover the commitments in German marks, and to some extent in Swiss francs, that they had undertaken because of relatively low interest rates in Germany and Switzerland. As the spot rate dropped, the Bank of Italy provided substantial support through May 9.

Once the speculation in marks subsided the lira market improved, and during late spring and early summer there was some reflow from German marks. This reflow, combined with repatriations of funds by Italian banks acting under the official request, more than offset the further outflow of Italian capital via export of Italian currency. Effective July 1, the Bank of Italy reinforced its defensive measures by imposing a penalty rate of 1½ points above its discount rate of 3½ percent for banks making excessive use of central bank borrowing.

New uncertainties unsettled the lira market with the fall of the Italian government in early July. Despite the subsequent formation of a new government, a strong undercurrent of apprehension persisted. When the French franc was devalued, the spot rate dropped to its floor, and during the next few days of exchange market uncertainties lire were offered in heavy volume, with the Bank of Italy extending sizable support. On August 14 the Bank of Italy raised its discount rate to 4 percent, and as the speculative pressures subsided the lira firmed. It held well above the floor through the end of August.

At the beginning of September, however, the lira came under renewed pressure as sporadic strikes presaged difficult wage negotiations and possibly inflationary settlements late in the year, when large labor contracts were due to expire. Moreover, with the German elections approaching, Italian residents who had commitments outstanding in German marks and Swiss francs moved quickly to cover themselves by buying these currencies. The lira dropped back to its floor, and the Italian authorities had to provide substantial support. To cover market losses, the Bank of Italy activated its $1 billion swap line with the Federal Reserve on September 23, drawing $300 million. Under these circumstances, the United States and Italian authorities agreed that it was appropriate to terminate the United States Treasury's remaining technical forward lira commitments which had arisen in connection with dollar-lira swaps extended by the Italian Exchange Office to its commercial banks. Consequently, these commitments were reduced progressively during the autumn, and by the end of November they had been fully liquidated.

Although the lira remained at the floor in early October, pressures eased considerably as soon as the German mark was permitted to appreciate. By midmonth a much firmer tone had set in as the unwinding of mark positions got under way. With repatriations from Germany continuing and the exchange markets more relaxed, the lira moved up close to its parity by the middle of November. During this period the Bank of Italy was able to absorb dollars from the market and, on November 14, it repaid its outstanding $300 million swap commitment to the Federal Reserve.

The lira held just below par in the first half of December but, as the impact of November's strikes began to be felt in reduced exports and higher imports, it began to weaken and by early January had reached its floor again. This deterioration in the current account—which is seasonally weak in the winter months in any case—was accompanied by further pressures on the capital side and, therefore, the lira remained under persistent selling pressure through January and February. The outflow of funds through bank-note exports continued heavy. The Italian commercial banks, moreover, were highly liquid and, because interest rates were higher abroad, were placing their excess funds in very short-term Euro-dollar investments. In addition, they were lending to Italian corporations which wanted to repay foreign loans and to foreigners who began to borrow in Italy. As a result, the Bank of Italy had to extend sizable support and to cover market losses reactivated its swap line with the Federal Reserve on January 23, drawing $200 million on that day and making additional drawings in February.

In mid-February the Bank of Italy took steps designed to curtail the capital outflow. First, it reminded the Italian commercial banks that, under the exchange regulations, lending to nonresidents required official approval. Second, it modified the regulations pertaining to the handling of Italian bank notes purchased by foreign banks and presented for conversion. Previously, Italian banks had paid the foreign banks on the basis of a telephoned notification that Italian bank notes were being shipped for conversion. Under the new regulations the Bank of Italy makes the payment directly or transfers the lire to the external account of the foreign bank with an Italian correspondent, and only after it has physically received and counted the notes at the head office in Rome. The new procedure, by lengthening the period during which foreign banks have to bear—or otherwise find cover for—an exchange risk on the notes they buy, naturally brought about a drop in the prices offered for Italian bank notes abroad and reduced the outflow. Finally, the authorities moved to reduce the possibility of large shifts in commercial leads and lags: prepayments of imports were limited to no more than 30 days in advance of delivery and repatriations of export earnings were required within 120 days of shipment, compared with one year in each case under the earlier regulations. Furthermore, on March 6 the Bank of Italy announced that it was increasing its discount rate from 4 percent to 5½ percent.

DUTCH GUILDER

The guilder had been under selling pressure early in 1969, with the high and rising interest rates available abroad attracting funds out of the Netherlands at a time when the current account was seasonally weak. In the spring and early summer, monetary policy was tightened substantially as the authorities moved against the strong inflationary pressures set off by the continuing vigorous economic expansion. To help finance these sizable outflows, the Federal Reserve's outstanding swap drawing of $40 million equivalent on the Netherlands Bank was repaid, and later the Dutch central bank in turn drew on the swap line, for a total of $192 million by the end of July. Further tightening measures in July and August—and the onset of seasonal balance-of-payments strength—gave rise to a demand for guilders, and the spot rate soon moved above par. The Netherlands Bank began adding to its reserves and, late in August, repaid $82.2 million of its swap indebtedness to the System.

In the latter part of September, the widespread nervousness in the exchange markets over the outcome of the German elections and its implications for the mark parity became a major influence in the guilder market. The market viewed the guilder as a leading candidate to follow a possible mark revaluation, and hedging and speculative inflows into the Netherlands brought heavy demand for guilders. After the German Federal Bank suspended its intervention at the mark ceiling and the mark rate rose sharply, buying of guilders intensified and inflows into the Netherlands became increasingly heavy through October. The Netherlands Bank at first held the spot rate just below the ceiling, but later allowed the rate to move up to that level. By October 24, the inflow into Dutch reserves during the period of the "floating" mark had reached $785 million. Part of these gains had been used to liquidate by October 8 the Netherlands Bank's outstanding drawings of $109.7 million under the Federal Reserve swap line. In order to provide cover for some of the Netherlands Bank's additional dollar intake, the System in turn subsequently reactivated the swap arrangement, drawing the full $300 million equivalent of guilders available under that line, and sold guilder balances to absorb a further $5 million. In addition, on October 29, the United States Treasury covered $200 million through a special one-week swap with the Netherlands Bank.

On the same weekend that the mark was formally revalued, the Dutch government made known its decision not to revalue the guilder. The spot rate then quickly backed away from the ceiling as speculative positions were unwound. By November 5 the Netherlands Bank had sold slightly more than one third of the dollars it had purchased in October. Consequently, the United States Treasury had no difficulty in repaying its swap and the Federal Reserve repaid $70 million equivalent of its indebtedness on November 6, thereby reducing its outstanding swap commitments in guilders to $230 million.

More normal trading activity prevailed throughout November, with the spot rate remaining fairly strong as the Dutch money market tightened and local interest rates tended to rise. With trading in guilders generally balanced, the Federal Reserve was able to repay a further $30 million equivalent on its swap debt, as the Netherlands Bank reduced its dollar position by converting into dollars the guilders which Germany had obtained as part of an IMF drawing at the end of the month.

In December, Dutch funds moved to the Euro-dollar market where interest rates were rising rapidly. As a result, the spot guilder began to weaken and the Netherlands Bank provided support to ease the decline of the rate. The dollar losses by the Netherlands Bank enabled the System to repay a further $70 million equivalent of its swap debt, reducing its outstanding commitments in guilders to $130 million by the year-end.

Demand for guilders softened further in January and early February, reflecting the seasonal weakness of the Netherlands' current account in the early months of the year and some easing of domestic credit conditions. Despite the decline in the spot rate, however, the Dutch authorities did not have to intervene, and as of March 10 the Federal Reserve swap drawings in Dutch guilders remained at $130 million equivalent.

SWISS FRANC

As the movement of funds from Switzerland to the Euro-dollar market lessened after midyear, the Swiss franc firmed, reflecting the continuing large current-account surplus. Throughout 1969, Swiss exports had pursued their strong expansion, accelerating the pace of domestic economic activity and leading to a buildup of inflationary forces. Imports soared as a consequence, but the current-account surplus, also bolstered by rising earnings on foreign investments, remained very substantial. Although there was a considerable churning of funds into and out of Switzerland, the Swiss franc remained relatively free of the speculative fluctuations besetting the other major European currencies.

In view of the increasing pressures on the labor supply, industrial capacity, and prices, the Swiss authorities began to tighten domestic policy late in August. Moreover, in mid-September, in response to rising interest rates at home and abroad, the Swiss National Bank raised its discount rate by ¾ percentage point to 3¾ percent and its "Lombard" rate on secured advances by a full percentage point to 4¾ percent. The Swiss National Bank also advised the commercial banks that it would undertake no September quarter-end swaps and that discount facilities would be limited. Accordingly, it requested the banks to repatriate funds from abroad to meet their liquidity needs.

With domestic credit conditions thus beginning to tighten, the Swiss banks met their quarterly requirements at the end of September in large part through the repatriation of funds. This demand helped push the franc rate to its ceiling and the Swiss National Bank took in a substantial amount of dollars. The Federal Reserve consequently reactivated its $600 million swap facility with the Swiss National Bank on October 10, drawing $200 million equivalent in order to absorb some of that bank's dollar gains. After the quarter end, however, the pull of high Euro-dollar interest rates began to draw funds out of Switzerland and the franc soon began to weaken, reaching an eighteen-month low on November 6. During this period the Federal Reserve acquired small amounts of Swiss francs in the New York market and from a correspondent, and on November 10 repaid $25 million equivalent of its swap debt to the Swiss National Bank.

Although there had been considerable press and market discussion of the possibility of a Swiss franc revaluation linked to a large revaluation of the German mark, there was no speculative rush into francs when the mark parity was changed. In mid-November a flurry did occur, however, and the spot rate advanced sharply, but the rumors were quickly dispelled by a reaffirmation of the Swiss government's decision not to revalue the franc.

The franc began to firm again in the second half of November, largely reflecting the usual year-end demand. As in previous years, to help the commercial banks cover their year-end liquidity requirements the Swiss National Bank offered market swaps of Swiss francs against dollars. These swaps, the first of which were contracted in early December, totaled $793 million by the end of the month —a record amount—and helped keep the spot rate for the franc below its ceiling. As in the past, the Swiss National Bank returned the dollars thus acquired to the Euro-dollar market in order to neutralize the effects of the year-end withdrawals on that market.

On December 30 the Federal Reserve reduced its swap indebtedness to the Swiss National Bank by $30 million equivalent to $145 million, mainly using francs purchased in the market in the latter part of November and early in December. The Swiss franc began to ease toward the end of December, as year-end positioning proceeded smoothly with the National Bank's help, and declined further in early January when, with year-end demand out of the way, Swiss banks were temporarily in a very liquid position in francs. The decline, however, was smaller and shorter than in previous years, and the spot franc soon firmed, as repayments of swaps with the National Bank tightened the commercial banks' Swiss franc liquidity positions.

In the meantime, the Swiss authorities were moving further to combat the inflationary pressures generated by the export-led boom. Late in December the government announced it had decided to complete by April 1 the tariff cuts it had agreed to undertake in 1971 and 1972 under the Kennedy-round negotiations. In January the National Bank and the Swiss commercial banks reached an understanding whereby the banks would more closely limit their credit expansion during the first half of 1970.

Early in February the Federal Reserve repaid $20 million of its swap indebtedness to the Swiss National Bank, purchasing the francs from that bank. Later in the month, the Federal Reserve and the Swiss National Bank decided that, with relative calm in the markets, the time had come to clear up the System's remaining swap debt, which had been outstanding since last October. Consequently, the National Bank sold $120.7 million equivalent of francs to the System. The Federal Reserve used these francs and some from balances to repay the swap drawing, thereby restoring the swap arrangement to a fully available standby basis.

BELGIAN FRANC

The Belgian franc strengthened during July, following official measures to tighten domestic credit conditions and to insulate the Belgian money market from credit pressures abroad. In early August, however, this firming was brought to an abrupt halt by the devaluation of the French franc, which was followed by widespread market rumors that the Belgian franc also would be devalued. The spot rate quickly dropped to its floor under heavy selling pressure, and in the first week following the French move the National Bank of Belgium suffered substantial reserve losses. To cover the drain, the National Bank reactivated its swap line with the Federal Reserve, drawing a total of $244 million out of the $300 million then available. A calmer atmosphere soon emerged, however, as the market came to appreciate the strength of Belgium's underlying balance-of-payments position. The franc strengthened and the authorities began to recoup some of their reserve loss. In late August the National Bank repaid $20 million of the outstanding drawings, reducing the total to $224 million. Meanwhile, negotiations had been completed for an increase in the reciprocal credit facility with the Federal Reserve by $200 million to $500 million and this was put into effect on September 2. The National Bank of Belgium simultaneously obtained a new $100 million equivalent credit facility from the German Federal Bank.

The Belgian franc began rising sharply in September, despite growing speculation in German marks. The improved tone of the franc was especially pronounced after midmonth when the Belgian authorities announced a number of anti-inflationary measures: the introduction of the value-added tax, scheduled for January 1, 1970, was postponed for another year in order to avoid further increases in domestic prices, while the National Bank raised its discount rate another ½ percentage point to 7½ percent, effective September 18, and tightened quantitative credit restrictions. Supported by these domestic measures and the increased availability of foreign official credit, the franc firmed toward the end of September. As the rate strengthened, the National Bank purchased dollars in the market, enabling it to repay $20 million of outstanding drawings on its swap line with the Federal Reserve by the end of the month.

As soon as the German mark was allowed to rise above its ceiling, the exchange markets again demonstrated their capacity for abrupt changes; the Belgian franc suddenly was seen as a candidate for revaluation along with the mark only two months after it had been subjected to heavy speculative selling. The spot rate moved to parity early in October and rose to its ceiling later that month, while the National Bank made increasingly large market gains. The speculation reached its climax on Monday, October 27, the first business day after the German revaluation. The next day the Belgian government stated firmly that the franc would not be revalued, and the speculation died down. By that time the National Bank had acquired an amount of dollars more than sufficient to repay in full during the course of October its remaining $204 million swap indebtedness to the Federal Reserve.

Even after the speculative outburst had ended, however, the demand for francs remained very strong. Commercial leads and lags, which had moved sharply against Belgium in August and September, were being reversed in subsequent months. Credit conditions, moreover, remained very tight, causing short-term funds to flow in. With the spot rate not far from its ceiling, the National Bank took in dollars from time to time throughout the rest of 1969 and into early 1970. In order to provide cover for some of these dollars, the Federal Reserve reactivated its swap line with the National Bank, drawing a total of $55 million equivalent in November and December. Additional drawings of $30 million in February raised the System's commitment to $85 million.

CANADIAN DOLLAR

During the first half of 1969 the Canadian dollar felt the effects of rapidly rising interest rates abroad. While monetary conditions were also becoming progressively tighter in Canada—partly in response to the authorities' anti-inflationary policies—the attraction of substantially higher returns on United States dollar instruments not subject to Regulation Q ceilings led to a large short-term capital outflow, primarily through the channel of "swapped" deposits. (In these transactions, Canadian dollar funds are converted into United States dollars on a covered basis and the United States dollars placed on deposit with Canadian banks; the latter in turn invest such funds in United States dollar instruments.) The persistent outflow of short-term funds at a time of seasonal weakness in Canada's current-account balance led to a steady softening of the spot rate despite continued heavy long-term capital inflows.

To curtail the outflow of short-term funds, the Bank of Canada raised its discount rate in two ½ percentage point steps in mid-June and mid-July, to 8 percent, and it asked the Canadian banks to regard their July 15 level of swapped deposits as a temporary ceiling. As the Canadian banks complied with this request, and with the domestic money market tightening in response to heavy credit demands and the discount rate increases, the outflow was substantially reduced and the spot rate immediately moved above par. Seasonal strength in the current account and an increased volume of long-term capital inflows further added to the demand for Canadian dollars, and the spot rate firmed through the end of August.

The rolling-over of a large amount of maturing swapped deposits temporarily depressed the spot rate in September and early October. However, the rate was soon pushed up sharply again by strong commercial demand. Furthermore, because the Canadian chartered banks had previously built up positions in United States dollars, they were able to accommodate the usual year-end demand for United States dollars without having much recourse to the spot market. This, along with tight monetary conditions in Canada, helped push the Canadian dollar to its effective ceiling ($0.9324) by the year-end, and it traded at or just below that rate throughout January. Toward the end of that month the Bank of Canada also moved to halt the practice of splitting swapped deposit transactions—a practice whereby swaps were done with one bank and the United States dollars placed on deposit with another. This move tended further to strengthen the spot rate, and the Bank of Canada made some moderate reserve gains. The demand for Canadian dollar balances began to ease early in February, however, and the spot rate moved slightly away from its effective ceiling.

Continuing tight money in Canada, coupled with large month-end corporate demands, resulted in a strengthening of the Canadian dollar late in February and, in the closing days of the month, the Bank of Canada made fairly sizable purchases of dollars when the rate reached the intervention level.

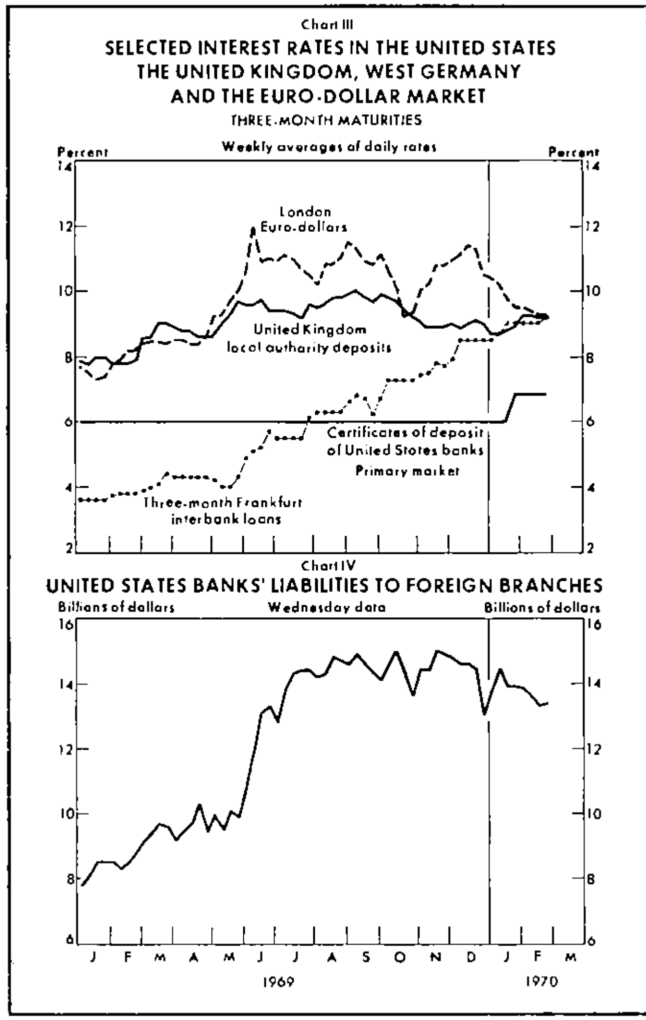


Chart III
SELECTED INTEREST RATES IN THE UNITED STATES THE UNITED KINGDOM, WEST GERMANY AND THE EURO-DOLLAR MARKET
THREE-MONTH MATURITIES

Chart IV
UNITED STATES BANKS' LIABILITIES TO FOREIGN BRANCHES

EURO-DOLLAR MARKET

During late summer the Euro-dollar borrowings of United States banks through their foreign branches had tended to stabilize at around $14½ billion—a level $7 billion higher than the 1968 peak—and interest rates had started to recede from their mid-June record highs (see Charts III and IV). This tendency was reinforced by several measures taken by the Board of Governors of the Federal Reserve System in order to prevent a resurgence of the flow of Euro-dollars to United States banks. First, the Board amended Regulation D (which governs reserves of member banks) in order to eliminate a technical loophole which had led banks to increase their use of overnight borrowing of Euro-dollars. Subsequently, it amended Regulation M (which governs the foreign activities of member banks) by placing a reserve requirement of 10 percent on member bank liabilities to foreign branches in excess of the levels outstanding in a base period and on United States assets acquired by foreign branches from their home offices. Also, Regulation D was further amended to place reserve requirements against borrowings from nonaffiliated foreign banks.

These measures reduced the incentive for United States banks to seek Euro-dollar funds and encouraged them to look for other sources of funds. One alternative that many banks found attractive was the commercial paper market and, as Euro-dollar liabilities stabilized, commercial paper borrowings rose sharply during the summer months. In September, United States banks' liabilities to their own foreign branches declined slightly, thus helping to bring about some easing of Euro-dollar rates for the shorter maturities: the three-month rate declined to less than 11 percent per annum by September 17. After a sharp but brief recovery around the time of the German elections, the rates resumed their decline and, under the pressure of the heavy reflux of funds from Germany in October, the dropped below 9 percent.

As the use of the commercial paper market by banks through the intermediary of bank-affiliated holding companies or subsidiaries grew, the Board of Governors became concerned that such borrowing might reduce the impact of monetary restraint. Consequently, the Board announced on October 29 that it was considering an amendment to Regulation Q which would subject all such bank-related commercial paper to the interest rate ceilings that apply to large CD's. Moreover, in a separate but related action, the Board ruled that commercial paper issued by subsidiaries of member banks already is covered by existing provisions of Regulations Q and D.

The prospect of closer regulation of member banks' use of the commercial paper market was swiftly reflected in the Euro-dollar market and, combined with the expectation of continuing tight credit conditions in the United States, contributed to a surge in interest rates from late October to mid-November. In December the short-term rates moved even higher, as banks attempted to maintain their Euro-dollar borrowings in the face of year-end repatriations of funds by United States corporations and foreign banks. By December 18, call money was at 11 percent, the rate for one-month deposits had reached $12\frac{3}{4}$ percent, and that for three-month funds $11\frac{9}{16}$ percent. After allowance for the 10 percent marginal reserve requirement, the effective cost of one-month Euro-dollars for United States banks which were above the ceiling of their base period reached at times 14 percent, exceeding the record levels attained in June. However, during the last two weeks of December, as repatriations of funds by United States corporations preparing to meet their balance-of-payments guidelines reached yet a new year-end high, United States banks' takings of Euro-dollar funds fell by some $1.6 billion, bringing the level of their liabilities to their foreign branches to $13.0 billion.

As soon as the pressures of year-end demand disappeared, Euro-dollar rates dropped. They continued to recede in January, but the movement stopped toward the month end. The increase of Regulation Q ceilings on January 21 had no immediate effect on rates, since permissible CD rates were still well below Euro-dollar quotations, but it probably contributed to market expectations that rates were likely to decline somewhat in coming months.

Euro-dollar rates fluctuated within very narrow margins in February. Tightening monetary conditions in a number of continental European countries, as well as the flows into the United Kingdom, tended to draw short-term funds from the Euro-dollar market; on the other hand, United States banks' takings from their own foreign branches, which had risen by $1.3 billion after the year-end, began to decline in mid-January, reaching $12.8 billion by March 4, while outflows from Italy increased the supply of Euro-dollars. By early March, Euro-dollar rates for most maturities were between 9 and $9\frac{3}{4}$ percent per annum.