August 1980-January 1981 Semiannual Report
(This report was released to the Congress and to the press on March 4, 1981.)

Treasury and Federal Reserve Foreign Exchange Operations

During the six-month period under review, the United States dollar came into heavy demand in the exchange markets and advanced sharply against many major currencies.

The dollar's underlying strength reflected the relatively favorable current account position of the United States. Our current account had swung from substantial deficit in the first half of 1980 to surplus in the second half of the year. By contrast, many other major industrial countries continued to record massive current account deficits, swollen by the increase in their oil-import bills following the run-up of international oil prices in 1979-80.

In addition, the dollar proved increasingly attractive as an investment medium As the United States economy snapped back from the sharp recession of early 1980, the demand for money and credit in the United States also rebounded strongly. With the Federal Reserve continuing to adhere to its approach—adopted in October 1979—of placing primary emphasis on bank reserves rather than on interest rates to control the growth of the money and credit aggregates, interest rates in the United States were bid up once again to new peak levels. Meanwhile, the economies of most other major countries were showing slower growth than before or even moving into recession, with marked increases in unemployment. This generated strong pressures on the authorities to ease up on policies, including monetary policies, even as inflation rates and, in most cases, current account deficits still showed little sign of improving. The authorities were reluctant to have their interest rates rise in pace with those in the United States. Consequently, as interest differentials opened up in favor of the dollar, increasing volumes of funds moved into dollar-denominated assets.

Through late 1980, the selling pressures were mainly on Western European currencies, in particular the German mark In Europe, current account deficits continued to be large and interest rates, while high relative to inflation rates, were generally below those in the United States. The pound sterling was an exception; the United Kingdom moved into a strong current account position and maintained high interest rates which proved attractive to investment flows. The Japanese yen also advanced sharply, on a substantial improvement in Japan's current account position and on heavy demands for yen-denominated assets.

In early 1981 the dollar's advance became more generalized, even though United States interest rates had edged off from their peaks. The release of the United States hostages by Iran lifted one element of uncertainty for the dollar, while the unfreezing of a part of Iran's assets took place without disrupting the exchanges Moreover, the market reacted positively to

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the sense of determination shown by the Reagan administration to deal with inflation and to revitalize the United States economy. By late January, market sentiment became extremely bullish toward the dollar. At the same time, market participants were inclined to interpret developments affecting other major currencies in a pessimistic light. In this atmosphere markets became increasingly one way, with the dollar rising virtually every day.

By the end of January, the dollar had risen by 19 percent against the German mark and by 16 to 20 percent against other currencies within the European Monetary System (EMS) joint float over the six-month period. Sterling, which had risen by 5½ percent, had dropped back for a net 1½ percent gain on balance The yen also eased back from its highs but still rose 10 percent for the six-month period The Canadian dollar, which had dropped to a forty-year low in December, was steadier after the year-end on signs of an improvement in Canada's external position and on the sharp rise in interest rates which had occurred in December.

In foreign currency operations, the United States authorities were active throughout the period, mainly as buyers of currencies As the dollar firmed against the German mark in August, the Federal Reserve and the Treasury began to acquire, in the market and through correspondents, the currencies needed by the System to repay swap debt and by the Treasury to cover its short position under its medium-term mark obligations. These operations continued in substantial volume through the fall. By end-October, the System had repaid in full the remaining $879.7 million equivalent of swap debt to the Bundesbank and $166.3 million of swap drawings on the Bank of France outstanding as of July 31, 1980. By early December the Treasury had acquired sufficient marks to cover its medium-term notes in that currency Thereafter, with the dollar still in strong demand, the United States authorities continued on balance to acquire currencies. Operations were conducted on days in which the exchange rates were particularly volatile, and on some occasions the Trading Desk placed simultaneous bid and asked prices to settle the market. Nevertheless, with the one-way movement into dollars which developed, by late January the United States authorities were again purchasing marks virtually every day.

To summarize, over the six months, the United States authorities operated in German marks, French francs, Swiss francs, and Japanese yen. In marks, the Federal Reserve and Treasury purchased a total of $7,569.5 million equivalent in the market and from cor-

Table 1

Federal Reserve Reciprocal Currency Arrangements

In millions of dollars

Institution	Amount of facility January 1, 1980	Increase effective May 23, 1980	Amount of facility January 31, 1981
Austrian National Bank	250		250
National Bank of Belgium	1,000		1,000
Bank of Canada	2,000		2,000
National Bank of Denmark	250		250
Bank of England	3 000		3,000
Bank of France	2,000		2,000
German Federal Bank	6,000		6,000
Bank of Italy	3,000		3,000
Bank of Japan	5,000		5,000
Bank of Mexico	700		700
Netherlands Bank	500		500
Bank of Norway	250		250
Bank of Sweden	300	200	500
Swiss National Bank	4,000		4 000
Bank for International Settlements			
Swiss francs-dollars	600		600
Other authorized European currencies-dollars	1,250		1,250
Total	30,100	200	30 300

respondents and sold $368 2 million in the market. In French francs, the Federal Reserve purchased $158 6 million in the market and from correspondents to repay the swap debt In Swiss francs, the Federal Reserve and the Treasury bought $192.2 million equivalent, which was added to balances. In yen, the Federal Reserve sold $50 0 million equivalent as part of a coordinated intervention operation early in January Finally, in January the central bank of Sweden drew $200 million under its swap line with the Federal Reserve. United States foreign currency reserves stood at $10 7 billion at the end of January, up from $5 4 billion at the end of July.

During the six-month period, August-January, the Federal Reserve realized profits of $18 6 million on its foreign exchange operations The United States Treasury's Exchange Stabilization Fund realized losses of $3 7 million on its operations in the market Also, the Treasury's general account incurred losses of $170 2 million, reflecting annual renewals at current market rates of the agreement to warehouse with the Federal Reserve mark and Swiss franc proceeds of Treasury securities denominated in these currencies. These losses will be recovered by the Treasury's general account when it reacquires these currencies for the redemption of the securities As of the end of the period, with the dollar having risen sharply, the Federal Reserve showed valuation losses of $150 6 million on its foreign exchange assets while the Exchange Stabilization Fund showed valuation losses of $826 3 million on its foreign exchange assets The Treasury's general account showed valuation profits of $781 1 million related to the outstanding issues of securities denominated in foreign currencies of $6,436 6 million equivalent

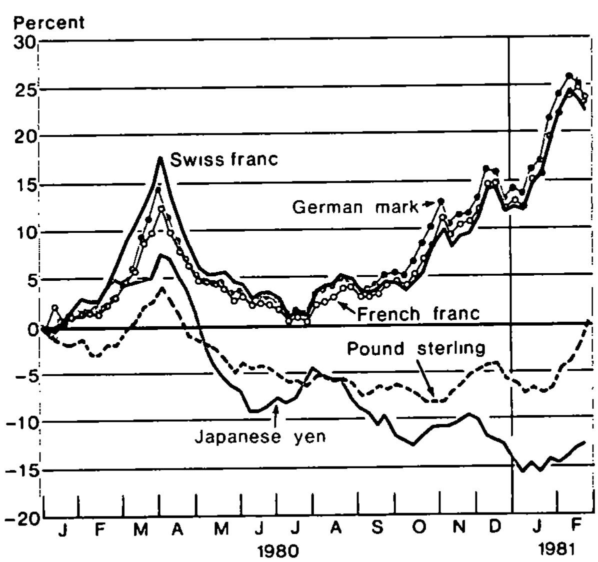
During the period under review, the United States authorities changed certain provisions of swap agreements with foreign central banks Since July 1973 the exchange risk on drawings by the Federal Reserve or the United States Treasury had been shared evenly with the foreign central bank on which the drawing was being made This risk-sharing procedure did not apply to drawings by other central banks In addition, since the inception of the swap agreements in 1962, the interest rates paid on any drawings, either by the Federal Reserve or the Treasury or by the foreign central banks, were based on the current rates for United States Treasury bills Under procedures beginning this year, the Federal Reserve and the United States Treasury, like their counterparties in the swap arrangements, will take the full exchange risk on their swap drawings They will also pay a rate of interest based on the creditor country's Treasury bill rate or the nearest equivalent market rate

German mark

By mid-1980 the German authorities were confronted with an emerging policy dilemma. Economic activity was contracting as recessionary trends abroad led to a sharp slowdown in export growth at the same time that domestic demand faltered. Unemployment was rising. Inflation, after peaking at 6 percent, began to recede and the growth of central bank money had slowed to the lower end of the 5-8 percent annual target range These developments had permitted the Bundesbank to begin cautiously to ease money market conditions by providing some liquidity on a temporary basis over the summer months. But the central bank resisted domestic pressures to reduce official interest rates out of concern that a relaxation of the overall restrictive stance of monetary policy before inflationary expectations were firmly laid to rest would undercut the progress already under way in bringing inflation under control Moreover, the current account deficit, running in excess of DM 25 billion at an annual rate, was in deeper deficit than earlier projected German interest rates, though high by domestic standards, remained low relative to interest rates elsewhere As a result, the goal of financing the current account deficit

Chart 1

The Dollar Against Selected Foreign Currencies

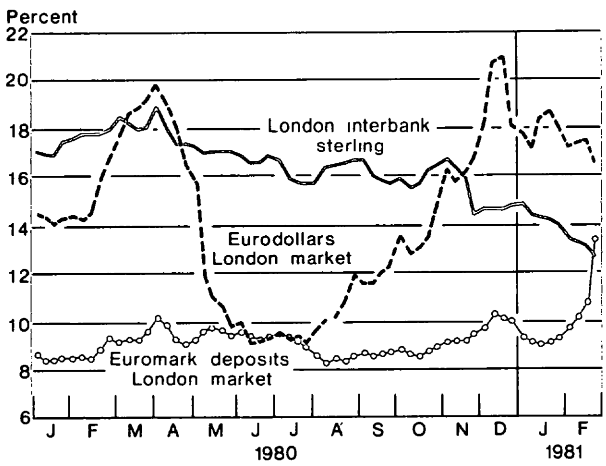


Percentage change of weekly average bid rates for dollars from the average rate for the week of January 2-4, 1980 Figures calculated from New York noon quotations

Chart 2

Selected Interest Rates

Three-month maturities*



*Weekly averages of daily rates

with a combination of private and public inflows of capital, and thereby avoiding a drain on Germany's foreign exchange reserves, had met with only limited success. Despite substantial foreign official placements with the Bundesbank and revaluation adjustments to its gold and foreign currency holdings with the European Monetary Fund, Germany's gross foreign exchange reserves declined $1 6 billion in the first seven months of 1980 to stand at $45.7 billion at end-July.*

In the exchanges, the German mark had moved up from its lows of last April in the wake of declining United States interest rates. On occasion during August the mark still came into bursts of demand amid concerns about the outlook for inflation in the United States. As in preceding months, the authorities in the United States acted to settle these pressures The Federal Reserve and United States Treasury together sold $69.6 million equivalent of marks during the month But the mark's rebound had lost momentum as a renewed upturn in United States interest rates began to provide support for the dollar. Also, tensions in Poland were generating uncertainties about Germany's strategic and economic exposure to developments in Eastern Europe. Consequently, the mark was from time to time vulnerable to renewed capital outflows and, on days when the spot rate weakened, the Federal Reserve and the United States Treasury were able to acquire $481.1 million equivalent of marks and $312.8 million equivalent of marks, respectively, in the market and from correspondents. These marks were used to rebuild balances and to reduce the Federal Reserve's swap debt with the Bundesbank from $879.7 million at end-July to $437.9 million by end-August.

The stalling of the mark's recovery during August contributed to the perception in the market that a deepening conflict between domestic and external objectives had left the German authorities with little room to maneuver. Following up on their actions of the summer, the Bundesbank acted to nudge money market rates lower while aiming to keep an overall, tight grip on liquidity. On September 1 the authorities cut minimum reserve requirements by 10 percent on domestic and foreign liabilities. To reduce the cost of funds to the banks further, the authorities acted on September 19 to lower the Lombard rate from 9½ to 9 percent, while also supplying additional mark liquidity via repurchase agreements against government securities and via foreign exchange swaps of marks against dollars. In fact, however, German money market rates did not ease much since the commercial banks, expecting a further drop in official lending rates, bid aggressively for funds in the market rather than approach the central bank for longer term loans. Around the time of the International Monetary Fund (IMF)-World Bank meetings in late September-early October, expectations of a more meaningful relaxation of policy became widespread amid spirited public discussion of the need for a cut in the discount rate.

Meanwhile, in contrast to the pattern of declining production and rising unemployment in Germany, economic activity in the United States was picking up. In the face of renewed demands for money and credit, the Federal Reserve had acted to constrain the growth of bank reserves in order to control the growth of the monetary aggregates. Market interest rates climbed sharply, and on September 26 the Federal Reserve raised the discount rate 1 percentage point to 11 percent. Strong demand for money and credit persisted, putting additional upward pressure on United States money market rates. With interest differentials adverse to the mark thus widening and with market participants looking for still larger differentials in the weeks ahead, capital began to flow heavily out of mark-denominated assets. As a result, the mark, already weighed down by the large current account deficit, came under increasing selling pressure in the foreign exchange market The Trading Desk continued to buy marks

* Foreign exchange reserves for Germany and other members of the EMS, including the United Kingdom, incorporate adjustments for gold and foreign exchange swaps against European currency units (ECUs) done with the European Monetary Fund Foreign exchange reserve numbers used in the report are drawn from International Monetary Fund data published in *International Financial Statistics*

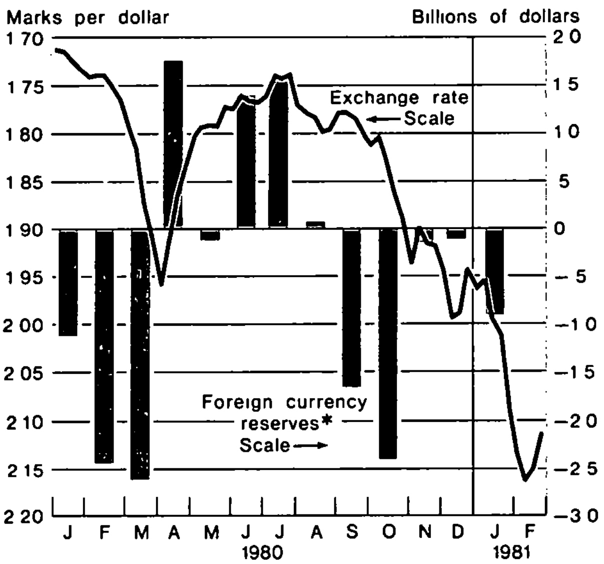
in response to the emergence of one-way pressures, acquiring $395 9 million equivalent of marks on behalf of the Federal Reserve and $283 6 million equivalent of marks, including $36 9 million on a forward basis, on behalf of the United States Treasury through October 15 These purchases in the market and from correspondents enabled the Federal Reserve to liquidate in full its remaining swap debt with the Bundesbank and the Treasury to continue covering its outstanding mark-denominated medium-term notes

At its Council meeting on October 20 the Bundesbank provided the banks with additional rediscount quotas at preferential rates and otherwise acted to increase bank liquidity but decided not to lower official interest rates Demands that greater priority be given to restoring economic growth nevertheless continued. Indeed, a report of the five leading German economic research institutes recommended that the Bundesbank expand the growth of the money supply, reduce official lending rates, and accept a temporary depreciation of the mark if necessary to prevent the downturn of the economy from deepening further In the foreign exchange market, sentiment toward the mark turned bearish Interest-sensitive capital flowed even more heavily from Germany amid portfolio shifts into the dollar, sterling, and higher yielding EMS currencies Meanwhile, official and commercial borrowers with financing needs in other currencies borrowed marks and converted the proceeds in the exchanges The pressure of these outflows triggered a fall in bond prices, prompting the Bundesbank to support the capital market through open market operations, while also pushing the mark to the floor of the joint float *vis-à-vis* the French franc and occasionally also *vis-à-vis* the Netherlands guilder As speculative selling pressures mounted, reports of a temporary withdrawal of the mark from the joint float or of a widening in intervention limits began circulating through the market But high-ranking German officials denied that such measures were under consideration and reaffirmed their commitment to maintain the mark's strength and thereby its attractiveness to foreign investors The Bundesbank, which had gradually increased its intervention sales of dollars, was by late October operating heavily in French francs and on a smaller scale in Dutch guilders to preserve exchange rate limits within the EMS Even so, by early November the mark had declined 10 percent from levels prevailing around mid-September to a low of DM 1 96 against the dollar

Chart 3

Germany

Movements in exchange rate and official foreign currency reserves



Exchange rates shown in this and the following charts are weekly averages of noon bid rates for dollars in New York Foreign currency reserves shown in this and the following charts are drawn from IMF data published in International Financial Statistics

*German foreign exchange data include adjustments for gold deposited with the European Monetary System and for foreign exchange swaps

To support the mark further, the Bundesbank allowed the heavy intervention within the EMS to tighten the German money market Moreover, the French authorities adopted measures on November 7 to ease their money market interest rates and to discourage capital inflows These actions alleviated the pressures on the mark As concerns over realignment of EMS parities began to fade, the immediate focus of market attention shifted to interest rate developments among the industrial countries In this respect, traders were unsure about the dollar's prospects if United States interest rates should suddenly drop off once the near-term run-up in rates topped out Consequently, when signs that the growth of the United States monetary aggregates had begun to decelerate set off expectations that United States interest rates might decline, the dollar came suddenly on offer As funds flowed out of dollars back into mark-denominated assets, the spot rate soared about 4 percent against the dollar to a high of DM 1 8860 in less than two trading days between November 7-10 In response, the United States authorities intervened as a seller of marks, while the Bundesbank also purchased dollars in Frankfurt.

Table 2
Federal Reserve System Drawings and Repayments under Reciprocal Currency Arrangements
In millions of dollars equivalent; drawings (+) or repayments (−)

Transactions with	System swap commitments January 1, 1980	1980 I	1980 II	1980 III	1980 IV	1981 January	System swap commitments January 31, 1981
Bank of France	-0-	-0-	+ 100 2	+ 60 6 − 54 6	−110 5	-0-	-0-
German Federal Bank	3,150 4	+ 316 0 −3,489 2	+ 996 1 − 132 4	+265 7 −876 2	−260 3	-0-	-0-
Swiss National Bank	-0-	+ 22 7 − 22 7	-0-	+ 11 2 − 11 2	-0-	-0-	-0-
Total	3,150 4	+ 338 7 −3,511 9	+1,096 2 − 132 4	+337 5 −942 1	−370 8	-0-	-0-

Because of rounding, figures may not add to totals Data are on a value-date basis

Data on repayments of swap commitments with the Bank of France and the German Federal Bank include revaluation adjustments of $34 3 million for swap renewals during 1980

Table 3
Drawings and Repayments by Foreign Central Banks and the Bank for International Settlements under Reciprocal Currency Arrangements
In millions of dollars; drawings (+) or repayments (−)

Bank drawing on Federal Reserve System	Outstanding January 1, 1980	1980 I	1980 II	1980 III	1980 IV	1981 January	Outstanding January 31, 1981
Bank of Sweden	-0-	-0-	-0-	-0-	-0-	+200 0	200.0
* Bank for International Settlements (against German marks)	-0-	+192 0 − 97 0	+ 50 0 −145 0	-0-	-0-	-0-	-0-
Total	-0-	+192 0 − 97 0	+ 50 0 −145 0	-0-	-0-	+200 0	200 0

Data are on a value-date basis

* BIS drawings and repayments of dollars against European currencies other than Swiss francs to meet temporary cash requirements

Table 4
United States Treasury Securities, Foreign Currency Denominated
In millions of dollars equivalent, issues (+) or redemptions (−)

Issues	Amount of commitments January 1, 1980	1980 I	1980 II	1980 III	1980 IV	1981 January	Amount of commitments January 31, 1981
Public series:							
Germany	4,065 7	+1,168 0	-0-	-0-	-0-	-0-	5,233 6
Switzerland	1,203 0	-0-	-0-	-0-	-0-	-0-	1,203.0
Total	5,268 6	+1,168 0	-0-	-0-	-0-	-0-	6,436 6

Data are on a value-date basis

Because of rounding, figures may not add to totals

But, contrary to expectations, United States interest rates continued their advance in the weeks that followed. With the economy expanding, the growth of the monetary aggregates resumed and United States interest rates began to advance once again. The Federal Reserve followed by raising the discount rate successively by 1 percentage point each on November 17 and December 5 to 13 percent and introduced a surcharge on frequent use of the discount window by large borrowers Short-term domestic and Eurodollar rates climbed sharply higher through mid-December, reaching new peaks of 22 percent and opening up interest differentials adverse to the mark of as much as 12½ percentage points.

Once again private capital flowed out of Germany as investors locked in high dollar interest yields at the expense of mark-denominated assets and as foreign governments, corporations, and individuals continued to borrow marks to take advantage of relatively low interest costs and prospective further declines of the spot rate in the exchanges Such outflows were of major concern to the German authorities. They added to huge funding needs imposed by the current account deficit as well as by the continuing deficit on long-term private direct investment Increased foreign borrowings by German public authorities, mainly from Organization of Petroleum Exporting Countries (OPEC) members, were not proving sufficient to prevent the mark from weakening further or to stem the erosion of Germany's foreign exchange reserves Accordingly, the Bundesbank acted to curtail further capital outflows and in December negotiated a "gentleman's agreement" with large commercial banks which temporarily stopped new mark-denominated loans to foreigners Nevertheless, selling pressure on the mark pushed the spot rate to as low as DM 2 0325 in European trading on December 12 despite substantial purchases of marks by the Trading Desk both in New York and through the agency of the Bundesbank in Frankfurt. In the weeks between mid-October and mid-December, the United States authorities intervened forcefully at times to counter one-way pressures on the mark The Federal Reserve acquired $1,472 8 million equivalent of marks in the market and from correspondents, adding these to balances For its part the United States Treasury bought $3,101.7 million equivalent, including $196 million on a forward basis, enabling it to cover entirely its mark-denominated securities On occasions when the markets were particularly volatile, the authorities also intervened to sell $170 3 million equivalent of marks, financed out of balances

After mid-December as United States interest rates slipped back from their highs, the mark began to recover Even so, a sustained surge of buying did not materialize. There was some evidence by this time that the decline in United States interest rates would be more gradual than had been originally thought In particular, the United States economy, though generally expected to weaken in the first half of 1981, appeared fairly robust despite the depressed state of the auto and housing sectors. Moreover, further declines in German industrial production and rising unemployment were taken to suggest that the German authorities would follow by lowering their interest rates But, in view of the considerable uncertainties surrounding the movement in interest differentials, few traders were willing to take on new positions, particularly ahead of the year-end.

Coming into the new year, market participants tried to assess the outlook for economic and financial developments for 1981 Traders were impressed by the large swing in the United States current account from deficit in the first half of 1980 to surplus in the second half of the year Indeed, the importance of the increasingly favorable United States current account position for the dollar-mark relationship was underscored at the onset of trading in January when the mark, after initially rising to as high as DM 1 9280 on January 6, dropped back amid a stream of commercially based orders for dollars. By contrast, the outlook for Germany's current account worsened Most forecasters were looking for nearly as large a deficit this year as the DM 28 billion shortfall recorded in 1980, despite projections of continued stagnation and even recession in the German economy The prospect of a sizable and prolonged deficit partly reflected the adverse impact on Germany's terms of trade of the sharp depreciation of the mark and of higher oil prices. But underlying the tenaciousness of the deficit were structural problems as well, such as the challenge to manufactured exports by overseas competitors and Germany's continued heavy dependence on foreign energy resources.

Within Germany the on-going policy debate intensified amid heightened disagreement over the appropriate adjustment to the change in Germany's external situation. In the exchange market, sentiment toward the mark turned exceedingly bearish during January as market participants focused on the ambivalence of German policy. While holding to a firm monetary stance in the face of internal pressures to stimulate the economy, the central bank had nonetheless withheld from overt steps toward tightening, and market participants began to question the resolve of the authorities to support the mark. Moreover, the determined tone of the Reagan administration in seeking to strengthen the United States posture both at home and abroad contrasted sharply with the sense of policy frustration in Germany, adding to the market's pessimism toward the mark

In these circumstances, the selling of marks gathered force as concerns about a sharp drop in United States interest rates evaporated and as the Iranian hostage crisis and the unfreezing of blocked Iranian dollar assets were resolved without major incident, thereby removing uncertainties about the dollar Downward pressures on the mark were also aggravated by the possibility of a Soviet military intervention in Poland, in view of Germany's strategic exposure and its extensive trade and investment relationships with Eastern Europe By late January the mark was dropping more rapidly in the exchanges against the dollar than other EMS currencies and was again at the floor of the EMS *vis-à-vis* the French franc In response, the Bundesbank intervened in dollars and, together with the Bank of France, in francs to preserve the EMS intervention limits For their part, the United States authorities also acquired substantial amounts of marks Even so, the mark plummeted 10 percent from its early-January highs to DM 2 1300 by January 31, for a net 19 percent decline over the six months under review

In view of the continuing volatility of the exchanges after mid-December, the United States authorities intervened frequently both to settle the market and toward end-January to counter the strong one-way pressures building up in favor of the dollar From mid-December, purchases of marks by the Federal Reserve and the United States Treasury amounted to $719 0 million equivalent and $802 6 million equivalent, respectively Over that time, intervention sales by the United States authorities amounted to $128 4 million equivalent

In summary, during the six-month period the Federal Reserve purchased $2,106 9 million equivalent of marks in the market and $961 8 million equivalent of marks from correspondents, while intervening to sell $215 9 million equivalent At the same time, the United States Treasury acquired $3,865 2 million equivalent in the market and another $635 8 million equivalent from correspondents and sold $152 4 million equivalent of marks. Meanwhile, reflecting sizable intervention purchases of marks within the EMS and the repayment of swap debt by the Federal Reserve, Germany's foreign exchange reserves declined $3 3 billion over the six-month period to stand at $42 4 billion on January 31, 1981

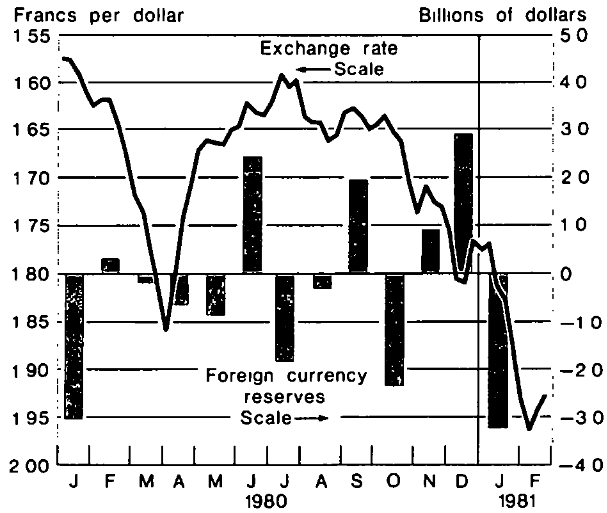
Swiss franc

The economy in Switzerland, in contrast to that in Germany, remained strong through the early summer of last year Bolstered by consumer and investment demand, the Swiss gross national product was expanding

Chart 4

Switzerland

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

at a 3 percent annual rate while employment advanced to its highest level in five years But international developments were impinging on this otherwise favorable economic performance Even though the Swiss inflation rate was still the lowest in the industrialized world, domestic prices were being pulled up sharply by rising oil prices and the higher prices of other imported goods

The deterioration in the terms of trade, recessions in foreign markets, and the strength of the domestic economy had opened up a trade gap of around $6 billion, about twice the 1979 deficit and sufficiently large to push the current account into deficit for the first time in fifteen years Moreover, since the larger industrialized countries were relying heavily on restrictive monetary policies to combat high inflation, interest rates abroad had risen, reaching historic highs in a number of countries and moving interest differentials sharply against Switzerland in early 1980 These differentials, especially against the United States, were widening again by early August

The relatively low nominal interest rates in Switzerland left the franc vulnerable to downward pressures which, if they intensified, threatened to increase inflationary pressures within Switzerland In response, the Swiss authorities had begun to dismantle exchange controls limiting capital inflows, actions which helped the franc rebound strongly against the dollar in the late spring-early summer. But, in late July, when the dollar began to recover, the franc fell back from its highs to trade around SF 1.65 in early August Later in the month as United States interest rates continued to advance, the franc eased further, slipping at times against the mark as well as the dollar. In response, the Swiss authorities hastened to complete the abolition of all remaining restrictions against capital inflows. In addition, regulations governing borrowings in Swiss francs were changed to make it easier for central banks and monetary authorities to invest in private Swiss franc placements During this period the United States authorities supplemented their operations in marks by operating in Swiss francs as well. By end-August, they had bought $20 million equivalent of francs in the market and $15.2 million equivalent from correspondents, of which $22 6 million was for the Federal Reserve and $12 6 million was for the Treasury

Meanwhile, since the Swiss National Bank had intervened only occasionally to buy dollars in 1980, the authorities were relying on other operations to provide the liquidity banks needed on a short- and medium-term basis to maintain reserve requirements. These operations included arranging foreign exchange swaps for short- and medium-term maturities and placing government deposits with commercial banks. Even so, the Swiss monetary base, which is used as a target by the authorities, was falling just below the desired 4 percent per annum growth rate. In part, this reflected reduced holdings of bank notes following the removal of exchange controls. But, with recessions spreading across other European countries, especially Germany, the sluggishness of monetary growth suggested that the Swiss economy might also be slowing down The markets came to expect a decline in interest rates Nevertheless, the authorities remained determined to combat inflation, which at 4 percent per annum remained historically high for Switzerland. Therefore, the Swiss National Bank provided liquidity at now relatively unfavorable interest rates, thereby signaling to the market its refusal to accommodate lower interest rates.

By mid-October, the steep rise in United States interest rates opened up a large gap between United States and Swiss rates. Funds flowed heavily out of the franc into the dollar and the rate fell sharply with other Continental currencies, dropping some 5½ percent to SF 1.7425 in early November before leveling off with the mark around midmonth. Nevertheless, during this same period the somewhat tighter money market conditions had helped stabilize the franc *vis-à-vis* the mark. With the franc benefiting from the return of funds that had been invested earlier in the year in Germany, the franc did not fall as fast as the mark and the Swiss National Bank did not have to intervene in the exchange market. Between early September and mid-November the Federal Reserve bought an additional $5 million equivalent of francs in the market and $102.2 million equivalent from correspondents For its part the Exchange Stabilization Fund bought $29 8 million equivalent from correspondents.

In December, United States interest rates rose even higher and the differential between United States and Swiss interest rates widened to more than 14 percent. Investment portfolio managers reacted swiftly by moving large amounts of funds out of the franc into higher yielding dollar assets. Moreover, seeing little possibility of a near-term recovery in the franc, many corporate entities, governments, and official agencies borrowed francs domestically or in the Euro-Swiss franc market where in many cases borrowers simply exercised options to allow them to switch loan currency denominations on rollover dates. As a result, the franc fell even more sharply against the dollar, while also relinquishing some of its gains against the mark. By mid-December, it dropped another 5½ percent to SF 1 8365 before recovering to SF 1.7800 at the month end in response to the decline in United States interest rates and a sharp year-end rise in Swiss interest rates.

Coming into 1981, participants remained wary over the outlook for the franc. Its steep decline against the dollar was seen as undercutting the fight against inflation in Switzerland. At the same time, the Swiss economy was expanding more slowly in the face of deepening recessions in Germany and elsewhere in Europe. In many financial centers around the world the concern over Germany's economic outlook tended to include Switzerland, and as a result many investors viewed the Swiss franc as a less attractive medium for investment funds Against this background, once it became clear in early January that United States interest rates were not giving up much ground, the franc came heavily on offer with the other Continental currencies, plummeting 8 percent against the dollar over the month This further steep decline in the rate prompted the Swiss National Bank to sell modest amounts of dollars in the exchange market. Also, on January 29 the Federal Reserve and the Treasury each purchased $10 million equivalent of francs in the market to supplement intervention in marks. The franc closed on January 30 at a three-year low of SF 1.9270, to end the six-month period 16¼ percent lower against the dollar. Also, the franc eased back from its highs against the mark, having received much less intervention support It therefore closed the six-month period little changed on balance against the mark

Over the period, Federal Reserve market and correspondent purchases of francs totaled $30 million equiv-

Table 5

Net Profits (+) and Losses (−) on United States Treasury and Federal Reserve Current Foreign Exchange Operations

In millions of dollars

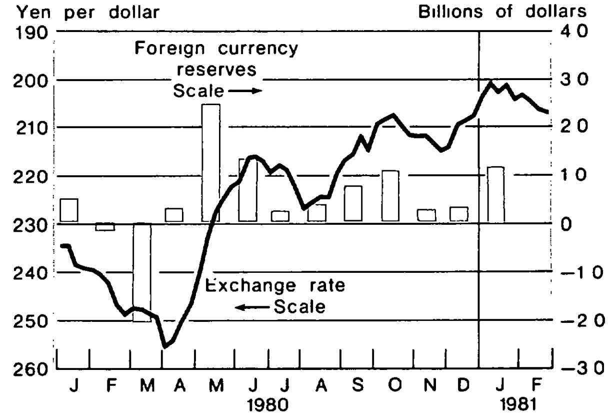
Period	Federal Reserve	United States Treasury: Exchange Stabilization Fund	United States Treasury: General account
First quarter 1980	+14 1	-0-	+64 9
Second quarter 1980	+7 7	+42 0	-0-
Third quarter 1980	−1 1	+3 9	+6 3
Fourth quarter 1980	+6 2	−3 1	−25 9
January 1981	+6 2	−0 7	−144 3
Valuation profits and losses on outstanding assets and liabilities as of January 31, 1981 .	−150 6	−826 3	+781 1

Data are on a value-date basis

Chart 5

Japan

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

alent and $109.8 million equivalent, respectively. Treasury Exchange Stabilization Fund acquisitions of francs totaled $15 million equivalent and $37.4 million equivalent, respectively.

During the six-month period, Switzerland's foreign currency reserves fluctuated from month to month in response to foreign exchange swap operations undertaken for domestic monetary purposes On balance, the reserves declined $200 million to $12.1 billion as of January 31

Japanese yen

By the third quarter of 1980, Japan was experiencing a dramatic turnaround in its balance of payments. This shift occurred initially in the capital account, where heavy inflows first into the banking sector and later into stocks and bonds had provided more than adequate financing for a current account deficit still running at a $20 billion annual rate through the first half of the year. By midsummer, however, the current account was itself moving out of deficit at an unexpectedly rapid pace. A major reason for this improvement was a large reduction of the volume of oil imports, reflecting energy conservation efforts and major investments in energy-saving production processes by Japanese companies. In addition, following the adoption of more restrictive fiscal and monetary policies to stabilize the Japanese yen last March, private consumption flattened out and inventories were cut back sharply This reduction of domestic demand also contributed to lower import volume, while at the same time it encouraged Japanese companies to expand their overseas sales. As a result, the Japanese yen advanced from its early-April lows to ¥ 227 28 by the opening of the period, while Japan's foreign exchange reserves rose to $18.8 billion

This sharp recovery in the yen, together with the improved balance-of-payments performance, touched off a debate within Japan on whether or not to lower domestic interest rates Earlier in the summer, the Bank of Japan had resisted pressures for easing monetary policy in view of the continued strength of inflationary pressures and the size of the current account deficit. But, by mid-August, evidence emerged of the substantial improvement in the current account and of a lowering in the inflation rate. Moreover, economic growth was slowing down both at home and abroad. As a result, on August 20, the Bank of Japan lowered its discount rate by ¾ percentage point to 8¼ percent. In addition, on September 5, the government announced a modest fiscal stimulus, featuring a restoration of some programs cut earlier in the year.

In the exchange market, this slight relaxation in fiscal and monetary policy had little impact on the performance of the yen. The market had become increasingly aware that, despite its heavy dependence on oil imports, Japan—by comparison with most other industrialized countries—was achieving a rapid adjustment to higher world oil prices. The yen was remarkably resilient in the face of a prospective shortfall in oil production resulting from the outbreak of hostilities between Iran and Iraq. This resiliency impressed the market and the yen continued to be buoyed by capital inflows, including funds from OPEC countries to purchase stocks of Japanese companies as well as government and corporate bonds. These inflows, together with the virtual elimination of the current account deficit by early autumn, propelled the yen 7¼ percent above early-August levels to ¥ 210.65 by September 19 and a further 2 percent to ¥ 206.20 on October 14. At this level the yen was at its highest in nearly two years before easing back against a strengthening dollar to ¥ 211.05 at the month end. Meanwhile, with the yen in heavy demand in late September-early October, the Bank of Japan intervened in the exchange market to moderate its rise These operations contributed to a $2 2 billion increase in foreign exchange reserves to $21.0 billion as of October 31.

In early November the strength of the yen, further evidence of moderating inflation, and a moderation of monetary growth provided the Bank of Japan with an opportunity to cut its discount rate another 1 percentage point to 7¼ percent In addition, the authorities lowered reserve requirement ratios for bank deposits This move was largely anticipated in the exchange market, and the yen continued to fluctuate around ¥ 212 Around the month end, however, the Japanese yen dropped to as low as ¥ 216 75 on expectations of higher interest rates in the United States coinciding with the implementation of a new exchange control law on December 1, liberalizing the movement of funds in and out of the country. But, effective the same day, the Ministry of Finance announced increases in the quotas available to Japanese and foreign banks for swapping dollar borrowing into yen, thereby providing more scope for capital inflows. The market soon came into better balance, and the yen recovered to fluctuate around ¥ 210 through midmonth.

In late December, exchange market sentiment became more favorable for the yen. Continued strength of export and investment demand was expected to give the economy a boost in Japan that contrasted with the spreading slowdown in most other industrialized countries With United States interest rates also drifting lower at the time, market participants came to expect another wave of investment flows into Japan. As the market turned more bullish toward the yen, commercial leads and lags moved in its favor, pushing the rate up to as high as ¥ 198.00 on January 5 This abrupt rise prompted the Bank of Japan to intervene in the exchanges. At that time, the dollar was coming generally on offer and, as part of a joint effort with the Bank of Japan to prevent the disorderly conditions in the yen market from spilling over into the other currency markets, the Federal Reserve sold $50 million equivalent of yen in New York, financed out of System balances. This intervention helped bring the market into balance and, as concern over a possible sharp drop in United States interest rates faded, the yen rate settled back to around ¥ 202.50 by midmonth. Thereafter, the yen traded quietly, declining somewhat against the dollar but rising against the continental European currencies. Market sentiment remained generally positive for the yen, which closed on January 30 at ¥ 206.10, up some 9½ percent over the six-month period. Meanwhile, the Bank of Japan's interventions during the last three months of the period contributed to a $1.7 billion rise in foreign exchange reserves to $22.7 billion as of January 31, for an overall rise of $3 9 billion higher for the six-month period.

Sterling

Coming into the period under review, sterling had been buoyant relative to other European currencies. Britain's rising production of oil from the North Sea left its economy well protected against possible cutoffs in oil supplies and further increases in energy prices. A deepening recession at home was so dampening import demand as to help push the current account from deficit into substantial surplus. The British authorities remained determined to curb the entrenched inflationary pressures in the domestic economy. Toward that end, the Bank of England kept short-term British interest rates close to the recent record levels as long as the demand for credit appeared to remain strong. As a result, British interest rates stayed high by international standards and, in a world dominated by fears over the vulnerability of national economies to rising oil prices, sterling remained an attractive investment medium, especially in view of the depth, diversity, and breadth of the London money and capital markets.

As a result, the pound had led the advance of the European currencies against the dollar during the spring and summer to trade by early August at $2.34 against the dollar and around 74.5 on a trade-weighted basis as a percentage of Smithsonian parities. Moreover, Britain's reserve position had become so strong that the government had announced during July its decision to prepay during 1980 an official Eurodollar borrowing of $1.5 billion due to mature during 1985-88. Even after some of these repayments, Britain's official foreign currency holdings at the end of July were close to an all-time high at $20 4 billion

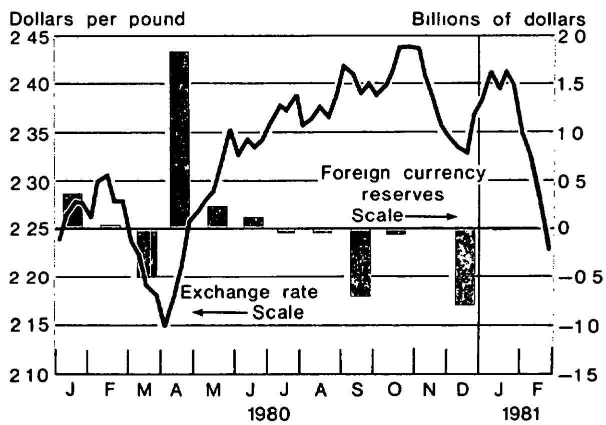
Sterling's strength in the exchange market, while acting to slow domestic price increases, was creating a dilemma for British policymakers, since the pound's steep and persistent rise against nearly all other currencies posed an ever-increasing threat to the competitiveness of British goods. As the pound advanced, British industrialists complained bitterly over narrowing profit margins and declining product market shares. As Britain's company sector came under increasing liquidity strains, unemployment rose to over 2 million, stocks were run down, and investment was cut back. The corporate bond market remained inactive, and bank borrowing was the major source of finance. The continued high level of borrowing by the private sector, as well as the large public-sector borrowing requirement, kept monetary growth well above target despite substantial sales of government stock. Thus, market participants eagerly awaited any evidence that might point to a deceleration in monetary growth sufficient to permit the authorities to lower interest rates or, alternatively, any development that might prompt the authorities once more to engage in heavy exchange market intervention to moderate the pound's rise.

Instead, money market conditions in London remained tight almost continuously from August to October. Statistics on the growth of the monetary and credit aggregates gave the market little hope that the time had come for the Bank of England to reduce its official minimum lending rate. As a result, sterling continued to be well bid during the late summer and fall. During August, both the exchange market and the money market were further influenced by efforts of the major oil companies to acquire sterling to make sizable

Chart 6

United Kingdom

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

petroleum revenue tax payments. In late September the pound was bid up further in reaction to the outbreak of hostilities between Iraq and Iran, rekindling concerns over the global availability of oil supplies. By mid-October, release of figures revealing a further gain in Britain's trade surplus underscored the magnitude of the favorable shift in the country's balance-of-payments position. Thus, sterling was ratcheted up against the dollar 3 percent in the two and a half months to mid-October to $2.4108, even as most other European currencies were fluctuating rather narrowly, albeit somewhat lower, against the dollar.

Later that month, when a renewed rise in United States interest rates started to draw funds out of many continental European currencies, the still relatively high yields available in London shielded the pound from these pressures. Indeed, with sizable amounts of OPEC and other investment funds on the move, some funds went into sterling and this influx helped push the exchange rate up even higher. By late October the pound was advancing against virtually all currencies, hitting a six-year high of $2.4565 against the dollar. Against the continental EMS currencies, the pound rose 10 percent above early-August levels to four-year highs in early November. The Bank of England continued to intervene only to smooth out wide movements in the rate. Net official dollar purchases in the exchange market were more than offset by other operations, so that the United Kingdom's currency reserves declined somewhat over the three months.

Meanwhile, however, credit demand, although still strong, was on the verge of slackening for several reasons. The government deficit, although running ahead of forecast levels, was expected to decline as a result of planned expenditure reductions, the approach of the tax payment season, an anticipated rebate from the European Community (EC), and sales of government-owned companies. Also, as the recession became more protracted and industry cut its employment rolls while also pruning financial commitments, the demand for bank credit was expected to taper off. In the exchange market, expectations therefore hardened that the authorities would announce a reduction of interest rates when a new Parliamentary session opened in mid-November. A sharp sell-off suddenly developed, and the pound fell 4¾ percent from its highs to $2.3385 on November 24. On that day the Bank of England's minimum lending rate was reduced by 2 percentage points to 14 percent. Chancellor Howe also announced a series of measures designed to lower the public-sector borrowing requirement, including a proposal for a supplementary tax on oil production at a rate of 20 percent of gross revenues and an increase in employee national insurance contributions (effective from April 1981). On balance, this package was well received in the exchange market and the pound steadied to trade around $2 34 through mid-December.

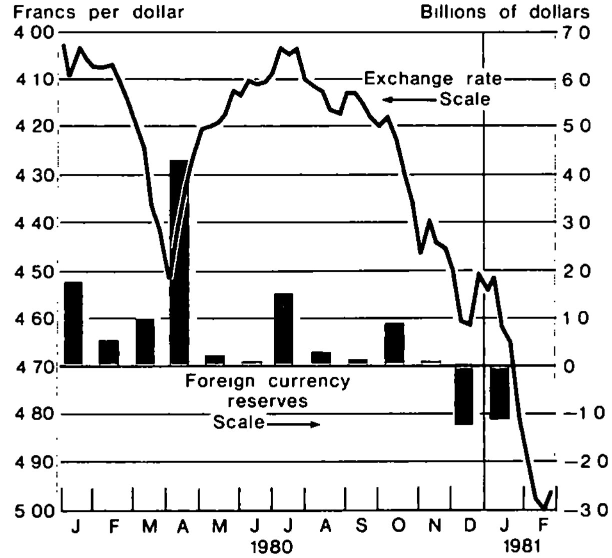
Coming into the new year, sterling was again buoyant in the exchange market. Underpinned by a further widening in the current account surplus, a rebate from the EC, and occasional large investment orders, the pound was bid up to as high as $2 4320 on January 21 Nevertheless, with United States interest rates unexpectedly firm and with the dollar strong in the exchanges, the pace of capital flows into the pound began to slow As a result, a diversification of investment portfolios by British residents into other currencies that had proceeded ever since abolition of exchange controls a year before now began to show through Around the month end, sterling dropped back from its highs to close at $2 3630 on January 30 The pound was, however, still up 1½ percent on balance against the dollar and nearly 21 percent higher against the mark since end-July On a trade-weighted effective basis, the rate rose 7 percentage points to 81 2 percent of its Smithsonian parity over the six-month period.

Meanwhile, the Bank of England continued to intervene on both sides of the market to smooth fluctuations in the pound These operations had little impact on external reserves, which were affected more by repayments of foreign currency debts and periodic revaluations of Britain's holdings in the European Monetary Fund As a result of these considerations, the United Kingdom's foreign currency reserves declined $1 7 billion over the six-month period to $18 7 billion as of January 31

Chart 7

France

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

French franc

For France the recent sharp oil price increase served to aggravate domestic inflationary pressures, lower real incomes, and impose a sharp reversal in the country's current account position, thereby eroding the benefits of years of stabilization policies By mid-1980, the rate of consumer price inflation had jumped up to 13½ percent The current account surplus of preceding years had given way to a deficit that was to amount to $7 billion for the full year Moreover, the economy had lost its upward momentum in the face of weakening consumer and investment demand and, with little opportunity to absorb a growing labor force, the rate of unemployment rose to over 6 percent In response, the French government had already begun to provide limited fiscal stimulus to the economy and followed up with some further modest measures when it announced its 1981 budget early in September In particular, certain social benefits were increased, more low-interest loans were made available to export firms and to finance housing, and some tax relief was provided to encourage new investment But the French authorities, remaining committed to the combined goal of curbing inflation and maintaining the strength of the French franc, resisted pressure to ease the Bank of France's restrictive monetary policy as the economy weakened. Indeed, tight limits on banks' credit ceilings were maintained The growth of money, which had run near the top of the target for M-2 of 11 percent at times during the summer, was back well within the targeted range by early fall In addition, short-term rates had resumed a gradual rise after the summer, so that interest rates for most maturities were yielding a positive return even after taking account of inflation

In the exchange market, the French franc was trading firmly as the six-month period under review opened. It was benefiting then, as it had through much of the year, partly from the relatively high French interest rates that attracted investment flows into franc-denominated assets and partly from the domestic credit ceilings that provided an incentive to French banks and corporations to borrow in foreign currencies to meet local financing needs In addition, the market's attitude toward the franc remained more positive than for other European currencies The current account deficit, while a source of concern, was considerably smaller than that for Germany, its principal trading partner. France's traditionally good relations with Middle Eastern countries were generally thought in the market to help cushion France from any shortfall of oil supplies that might result from either the Iranian crisis or the outbreak of hostilities between Iran and Iraq. Moreover, some investors looking to diversify their holdings were attracted by the opportunities afforded in either the domestic or Eurofranc markets. Thus, capital inflows were more than sufficient to finance France's current account deficit. The French franc had recovered from its spring lows to trade around FF 4.15 early in August. Bank of France intervention within the context of the EMS had contributed to a rise in France's foreign currency reserves to $25.3 billion by end-July. Also, in view of the franc's relative strength, the Federal Reserve had included the French currency in its intervention operations earlier in the year, leaving a net $166.3 million of indebtedness outstanding under the System's swap line with the Bank of France as of that same date.

Against this background, with the currency markets reasonably well balanced during August-September, the franc fluctuated narrowly against the dollar while remaining comfortably near the top of the EMS 2¼ percent band. Although the Bank of France continued to buy modest amounts of EMS currencies, there was little further increase in French official foreign exchange reserves. Later on, however, the French franc became caught up in the tug-of-war between a generally rising dollar and a declining German mark. As the dollar strengthened after mid-October, the French franc started a decline which was to proceed almost without interruption to FF 4 4750 against the dollar by early November Meanwhile, the Federal Reserve took advantage of the opportunity to begin to buy French francs both from correspondents and in the market and covered all its outstanding swap debt by end-October.

Within the EMS, by contrast, upward pressure on the French franc intensified after mid-October. The Bank of France had just, in effect, reaffirmed its commitment to a restrictive monetary policy stance at a time when the authorities of other European countries were becoming increasingly concerned about slower economic growth and the prospect of recession. The French central bank announced that its growth target for M-2 for 1981 wou'd be reduced to 10 percent and intervened in the Paris money market to maintain interest rates at a fairly high level With the German mark coming under increasing selling pressure, the still relatively high level of interest rates in France attracted funds from abroad and kept the French franc from declining as rapidly as the mark against the dollar. The relationship between these two currencies within the EMS, therefore, became increasingly strained. On a number of occasions in late October and early November, the franc was at its upper intervention limit against the mark The central banks of both countries were obliged to intervene in the market to buy large amounts of marks against francs. At times the Bank of France supplemented these operations by buying small amounts of dollars as well. Despite these purchases, which were partially reflected in an $874 million increase in official foreign currency holdings for the month of October, the franc had risen to a high of FF 2.3002 against the mark by October 31.

On November 7, the Bank of France announced a number of measures to relieve the upward pressure on the franc within the EMS. The money market intervention point was reduced ¾ percentage point to 10¾ percent, and a 5 percent reserve requirement was imposed on nonresident deposits to discourage interest-sensitive short-term capital inflows from abroad. But, to offset the effects of the recent intervention activity on domestic liquidity, the Bank of France also increased reserve requirements on commercial bank sight and time deposits. After these measures, the pressures in the EMS substantially subsided. The franc eased from its limit against the German mark, although at times during November-December the Bank of France bought modest amounts of marks while also acquiring Belgian francs when that currency was low within the EMS. For a time the EMS also steadied against the dollar. When, however, the EMS as a group declined, the French franc dropped further against the dollar, easing as much as 4 percent below early-November levels before recovering some in advance of the year-end

During January, as prospects of a resolution to the Iranian hostage issue improved, the market for French francs began to react to the possibility that any move to unfreeze Iranian assets would set off new and possibly massive flows of funds. Those United States banks with liabilities *vis-à-vis* Iran were presumed to have to bid for funds in the Eurodollar market to meet these liabilities and, as Eurodollar rates were bid up, the European currencies generally weakened against the dollar. At the same time, market participants anticipated that Iran, once its assets were unfrozen, might try to switch a substantial amount of its funds into French francs. As a result, the franc declined less against the dollar than the other EMS currencies as the dollar continued to advance around midmonth Although in fact no such flow of funds materialized, the relatively high interest rates in France continued to attract funds from abroad. By the end of January, the franc was again firmly against the upper EMS band even as it eased to FF 4.9000 against the dollar. The Bank of France was once more intervening with other central banks to support the German mark and Belgian franc. France's official foreign currency reserves increased further to stand at $26.5 billion by end-January, up $1.2 billion over the six-month period. Over the six months under review, the French franc, frequently caught between the rising dollar and the weakening German mark, moved down by 18½ percent on balance against the dollar and up ½ percent on balance against the mark.

Italian lira

By mid-1980, the sharp increase in energy prices of the past two years, together with a rapid deterioration in Italy's nonoil trade position, had swung Italy's current account sharply into deficit, reversing the sizable surplus position of 1979. The Italian domestic economy continued to expand strongly into 1980, even at a time when a slackening of other economies was being reflected in a slowing of foreign demand for Italian products. Moreover, inflation in Italy remained relatively high, proceeding at a pace of more than 20 percent on a year-over-year basis. Since spring, fiscal policy had been at the center of an intense domestic debate that focused on the need to control inflation, to reduce the government debt, and to spur export growth. But, with no fiscal measures yet in place, the burden of fighting inflation fell entirely on monetary policy which remained restrictive.

In this context, the Italian lira had come under increasing pressure. In the exchanges, as the growing current account deficit weighed increasingly on the lira, the spot rate had not risen as the dollar declined and, consequently, had fallen from the top to the bottom of the EMS. At home, exporters had pressed strongly for devaluation to restore their competitive position. Government officials publicly denied that devaluation was a viable alternative in Italy where prices and wages are highly indexed. Even so, commercial leads and lags moved sharply against the lira, and Italian residents sought increasingly to repay their foreign currency borrowings, thereby adding to pressure on the lira and keeping the devaluation rumors alive. By early summer the Bank of Italy had intervened heavily in the exchanges to steady the lira within the EMS band.

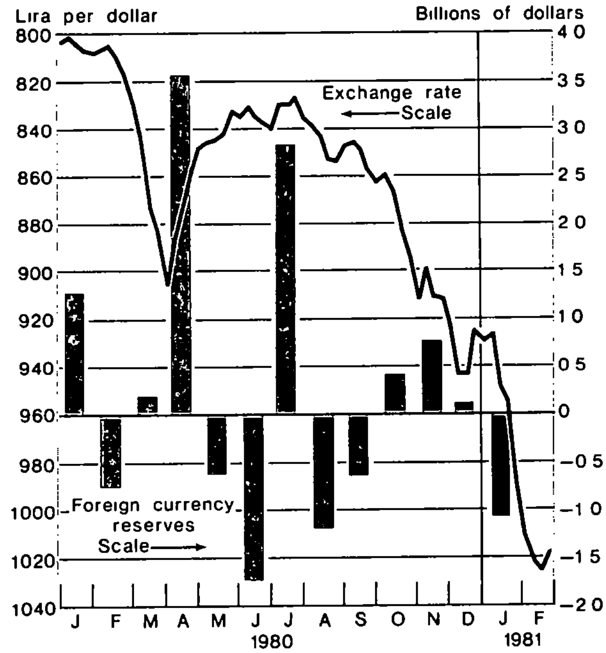
Early in July the government implemented a package of austerity measures aimed at controlling inflation, supporting the lira in the exchanges, spurring exports, and cutting the public-sector borrowing requirement as a share of gross domestic product. The measures, which became effective immediately but required Parliamentary ratification within sixty days, included consolidation of value-added tax brackets, higher taxes on spirits, gasoline, and stamps, and a special tax on wages to be used in support of weak industries. At the same time, the Bank of Italy further tightened restrictions on domestic credit expansion. The exchange markets responded favorably to these measures, rumors of lira devaluation subsided, and the lira firmed temporarily in the exchanges. As capital began to flow back into Italy and the normal tourist-related inflows began to gather pace, the Bank of Italy was able to rebuild its foreign currency reserves to $22.0 billion by end-July. Meanwhile, the lira stabilized within the EMS band about 2½ percent below the top and participated with other currencies' rise against the United States dollar. By early August it was trading above its lows as LIT 838.80.

But downward pressures on the lira developed again by mid-August. Although by this time the domestic economy had itself begun to slow, Italy's current account continued to deteriorate and there was little evidence of improvement on the inflation front. Market

Chart 8

Italy

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

participants continued to question how long the lira could be held within its EMS band in view of the much lower inflation rates in most other EMS countries. Also, the time for ratifying the July package of economic measures was running out. In fact, when the coalition government of Sig. Cossiga lost a Parliamentary vote of confidence and resigned over the weekend of September 27-28, the July government austerity measures were allowed to lapse.

At this juncture, the Bank of Italy stepped in to stem any buildup of speculative pressure against the lira. It immediately raised the discount rate 1½ percentage points to 16½ percent, required exporters to finance 50 percent of their short-term credit needs in foreign currency borrowings, and tightened regulations dealing with leading and lagging of payments and receipts. The Bank of Italy also intervened forcefully in the exchange markets Meanwhile, a new government under Sig Forlani was soon formed. New fiscal measures were put into place to control the budget and slow the growth of personal consumption. Though similar to those contained in the July policy package, the new measures provided for additional acceleration of personal income tax payments and expanded support for ailing industries. These actions combined to reassure the exchange markets, and by mid-October the lira stabilized around LIT 865 and at a level of about 3½ percent below the top of the EMS band.

Over the next two months, the lira traded comfortably within the EMS, while declining against the United States dollar no more rapidly than the other currencies involved in the joint float arrangement. Interest rates in Italy remained higher than those abroad; and, though the climbing of United States rates narrowed some of the differentials favorable to the lira, the Italian currency was shielded more than most currencies from the growing flows of funds into United States dollar assets. Indeed, interest rate considerations, as well as restrictions on domestic credit demand, still encouraged inflows of short-term capital, and commercial leads and lags turned in favor of the lira. Moreover, the Italian oil companies that normally enter the exchange markets to acquire foreign currency balances in early December for regular import payments instead borrowed heavily in the Eurocurrency markets on the hope that the dollar would be cheaper in the future. With the lira thus holding steady within the EMS, the Bank of Italy took advantage of opportunities to acquire foreign currencies through mid-December and relaxed somewhat the October regulation relating to short-term export financing abroad.

Meanwhile, Italy's current account gap had widened to bring the deficit for 1980 as a whole to about $10 billion—a figure that was much larger than anticipated only a few months earlier and overshadowed news of a modest improvement in the trade account late in the year. Industrial production was beginning to show signs of a possible recovery, even before much progress had been achieved in improving price or trade performance. Public expenditures and borrowing turned higher late in the year, and monetary growth accelerated, clouding the outlook for a near-term reduction of inflationary pressures all the more. The Bank of Italy continued its strong anti-inflationary stance, and Italian interest rates remained high. Furthermore, just as the period closed, the Bank of Italy sought to strengthen its grip on credit expansion by extending the application of its ceilings to all bank loans in lire and, for the first time, to most loans in foreign currencies, leaving only export loans exempt from the ceilings.

Nevertheless, funds had begun to flow out of Italy in late December, as export financings were repaid and those Italian oil companies that had previously borrowed abroad to finance their import deliveries took advantage of a brief softening of dollar rates to repay these loans. The pressures against the lira continued through January, prompting the Bank of Italy to intervene at times quite heavily to maintain the lira's position within the EMS band. As the entire joint float declined sharply against the dollar through January, the lira fell to record lows, closing the six-month period at LIT 1,004.50 or down a net 19¾ percent. At the same time, Italian reserves stood at $20.5 billion, down $1.5 billion for the period.

European Monetary System

Last spring and early summer, the currencies linked together in the joint float arrangement within the EMS rebounded against the dollar, largely in response to the sharp decline in United States interest rates while interest rates in EMS member countries generally remained firm. This advance halted in July, and EMS currencies generally eased somewhat against the dollar in August and in early September as United States interest rates began to turn upward while interest rates in several EMS countries declined slightly.

For the most part, these broad movements took place without much strain on the EMS joint float mechanism itself. Member countries faced the common problem of having to adjust to the sharp run-up of oil prices of 1979 and early 1980, which had generated unusually large current account deficits for all of them and had aggravated domestic inflationary pressures. The authorities were seeking to develop a coordinated policy response in the monetary and fiscal areas as well as on energy questions. Monetary policy, in particular, had been tightened to combat inflation at home and to attract funds which could help finance the current account deficits, or at least to stem an outflow of interest-sensitive funds that would complicate the effort. In general, interest rates were higher in countries with high rates of inflation, so that interest differentials roughly compensated for inflation differentials. By late summer it was clear that industrial production had dropped back from early in the year and, with unemployment rates rising, pressures were building up for an easing of earlier restrictive policies. But the central banks resisted pressures to ease, in view of the continuing high rates of inflation and the need to finance the current account deficits, with the result that any movement in the direction of ease was modest, if at all.

Within the band of currencies, the Dutch guilder was firm on the Netherlands' relatively favorable external position and on the high interest rates prevailing in the Amsterdam money market. The guilder, after having traded in the upper half of the EMS band during the first seven months of the year, moved toward the top of the band in August and remained there over the rest of the year The guilder's relative strength enabled the Dutch authorities to move cautiously to reduce interest rates, with four cuts in official rates totaling 2 percentage points between June and October. The French franc was also strong within the EMS, alternating at the top with the guilder, as France attracted capital inflows in excess of its current account deficit. In Ireland, foreign borrowings by the public sector were being used to finance the current account deficit. Conversions in the market of the proceeds of these borrowings and some favorable leads and lags in sterling payments kept the Irish pound near the top of the band. At the same time, Denmark was financing its current account deficit by borrowing abroad, enabling the Danish krone to fluctuate around the middle of the joint float. The Italian lira, which is allowed a wider trading band than the other currencies in the arrangement, also moved widely but without need for intervention at the outer limits.

The Belgian franc traded near the bottom of the 2¼ percent band. Belgium's problems were viewed as particularly serious by the market, with a large current account deficit, a large fiscal deficit, and a stagnating economy. To finance the current account and fiscal deficits, the Belgian government borrowed heavily in international markets Political wrangling hampered the taking of effective adjustment measures, and the Belgian franc remained under selling pressure, with the result that the National Bank was obliged to maintain interest rates high enough to avoid funds moving out of the franc and to give support from time to time to keep the franc within the 2¼ percent EMS band

The German mark was also near the bottom of the band. Germany had the largest current account deficit to finance among the EMS members. Although Germany's inflation performance continued to be as good or better than the others, German interest rates were well below those in other EMS member countries. Moreover, Germany had no official restrictions on capital outflows and still refrained from removing all controls on inflows The result was that funds could readily move out of Germany into other EMS currencies, and official and private entities within other EMS countries could readily use marks in international borrowings.

By October, strains began to build up within the EMS In part these came from outside, as heavy flows of funds moved into the United States dollar, the pound sterling, and the Japanese yen—currencies in which interest rates remained very high or, as in the United States case, were rising. But the interest rate disparities within the EMS and the relative freedom of funds to move also played a role With the exchange markets turning generally bearish over the outlook for the German mark, funds moved out of the mark and into other EMS currencies. To the extent that these funds gravitated to the currencies at the top of the EMS band—the French franc and Dutch guilder—the EMS intervention mechanisms were soon triggered

Intervention mounted quickly and talk began circulating of a possible widening in the intervention limits or of a temporary withdrawal of the mark from the joint float arrangement. Such approaches were openly rejected by the authorities of the respective EMS member countries. In early November, the French took measures to ease money market conditions, making explicit their intention to reduce the selling pressures on the German mark. Meanwhile, the Bundesbank was allowing the heavy intervention within the EMS to tighten its own money market. The market sensed the resolve of the authorities to maintain existing parities and the tension gradually eased. Even so, the EMS joint float continued to decline against the major currencies outside the group, including the dollar, the pound sterling, the Japanese yen, and to a small degree the Swiss franc. Apart from a rise in the Danish krone, reflecting a lower than expected 1980 current account deficit for Denmark and a downward movement in the Irish pound from its temporarily high position in the band, the configuration of currencies hardly changed within the EMS.

The currencies in the group at first recovered slightly against the dollar when United States interest rates were receding from their mid-December highs But it soon became apparent that United States interest rates would not drop off as sharply as some market participants had originally believed. Moreover, the market remained concerned about the prospects for EMS member countries in reversing their current account deficits and dealing with domestic policy dilemmas. As market sentiment toward the dollar became increasingly bullish, the dollar came into demand against the currencies in the EMS band. As before, the brunt of the immediate selling pressures fell on the German mark, and that currency touched its lower intervention limit. The Belgian franc also came under selling pressure, and both the mark and the franc required official support within the EMS.

Canadian dollar

In the summer of 1980, the Canadian dollar was underpinned by a favorable shift in Canada's trade and current account position, by a reversal of the previous adverse interest rate differentials *vis-à-vis* the United States, and by Canada's status as a major oil and gas producer. The improvement in the trade account stemmed from a slowdown in the domestic economy, the ability of Canadian exporters to take advantage of the sharp depreciation of the Canadian dollar of previous years, and the market's perception of sustained efforts to curb cost and price pressures at home through monetary policy As a result, exports to markets like Europe, where activity had not yet slackened so sharply as in North America, continued to increase. With the trade account heading to a surplus of $7 billion for the year, the current account deficit was narrowing to a size that could comfortably be financed by private capital inflows. The reemergence of favorable interest differentials reflected the sharper drop of interest rates in the United States than in Canada. Restoration of the traditionally favorable interest rate gap for Canada had once again provided an incentive for investors to shift funds into higher yielding Canadian dollar assets, while also prompting Canadian borrowers to tap United States and other foreign capital markets and to convert the proceeds in the exchanges. Canada's potential for increasing energy production in the future for both domestic and export use was underscored early in the year with reports of new oil discoveries. At a time of rapidly rising world energy prices and uncertainty over the adequacy of aggregate oil supplies, this factor added to the attractiveness of the Canadian dollar as an investment medium In this environment, the Canadian dollar had been bid up to its high for the year of Can $1.1406 in early July and by the month end Canada's foreign currency reserves stood at $1.9 billion after repayment in May and June of $600 million borrowed early in the year under the revolving standby credit facility with Canadian banks.

During August and September the Canadian dollar was beginning to lose some of its buoyancy. In part, this reflected a narrowing of the positive interest differential as Canadian interest rates continued to ease for a while even after interest rates in the United States resumed an upward trend The exchange market had also become concerned about the continued debate over domestic energy pricing and development policy, which had important implications for the distribution of income as well as the outlook for containing inflationary pressures at home. The western provinces had called for a larger share of oil revenues to be returned to provincial governments and for a more rapid increase in domestic energy prices to world market levels. When these calls were resisted at the federal level, the market became concerned that a fundamental constitutional conflict might emerge over the relationship between the federal and provincial governments Thus, the Canadian dollar settled back to trade around Can $1.1575 during much of August and September. It came on offer in early September around the time of a meeting between Prime Minister Trudeau and the provincial premiers and then again later in the month when no visible progress was made on the constitutional issue. By October 2, the rate declined to Can.$1.1734 with the Bank of Canada continuing to operate on both sides of the market to smooth short-run rate fluctuations

The Canadian dollar firmed briefly after early October as a number of developments, including the outbreak of hostilities between Iran and Iraq, reinforced the market's positive views about Canada's basic strength in its natural resources Late in the month, however, the Canadian dollar was again coming under some selling pressure as the market anticipated and then reacted to measures contained in the October 28 federal budget The budget called for cuts in the federal deficit and included a national energy policy which, in turn, provided for specific measures to increase domestic wellhead oil prices, impose a refinery levy to pay for oil import subsidies, and increase Canadian ownership of oil and gas production with an increase in the share of the national oil company These measures were seen in the market as discouraging foreign investment and as possibly complicating constitutional issues. Indeed, a number of provinces objected to the proposed oil-pricing arrangements and Alberta announced its intention to cut its oil production by 15 percent These developments contributed to a substantial sell-off of Canadian dollars in the exchange market and the rate declined to Can $1 1899 on November 6 By mid-November the market came back into balance with the spot rate fluctuating around Can.$1 1860

Meanwhile, the Canadian economy, spurred by strengthening retail sales and industrial production, had picked up in the third quarter and posted its first gain in real output for the year. At the same time, the inflation rate began to accelerate as increases in food and energy prices and higher labor costs worked their way through the economy The money supply moved toward the upper end of its target range, and the Bank of Canada, operating within a system of establishing its official bank rate in accordance with the weekly Treasury bill tender rate, entered the money market to push up short-term interest rates The discount rate then climbed to nearly 14 percent in mid-November, compared with about 10½ percent in mid-August But an even more rapid interest rate surge was under way in the United States—one which the Canadian authorities were initially reluctant to match

As a result, interest rates in Canada increasingly fell behind those in the United States, and the adverse differentials that first had emerged at the end of August had widened sharply by November-December. Several announced bond issues planned by Canadian entities for the New York market were postponed in response to the rise in interest rates here, cutting off a potential source of demand for Canadian dollars in the exchanges Also, dealers and corporate treasurers became increasingly unsure about the willingness of the authorities to foster interest rate increases to match those in the United States The Canadian dollar therefore came heavily on offer, plunging through the Can $1 20 bench mark by December 11 to a low of Can $1 2122 on December 16, 4½ percent below early-August levels

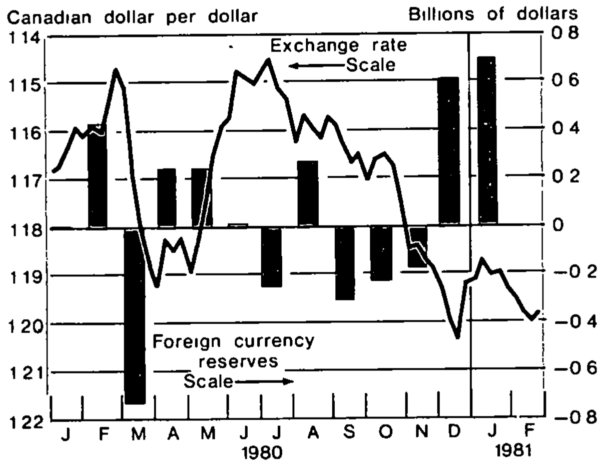
At the same time, the Bank of Canada continued to act forcefully in the money market, raising the official discount rate to 17.4 percent by December 19 as well as selling sizable amounts of dollars in the exchange market on a number of occasions. These actions were reinforced by Governor Bouey's speech to provincial ministers of finance restating the commitment of the Bank of Canada to firm anti-inflation policy and a stable currency in the exchanges As a result, the Canadian dollar steadied and began to recover, helped by an easing in United States interest rates Dealers moved to cover their short positions, and corporations which had held off buying Canadian dollars in expectation of further rate declines entered the market to cover their needs The rate thus rebounded to Can $1 1885 by December 30

A more positive tone prevailed in the market early in the new year, as market participants took note of the continuing improvement in Canada's trade position Also, some easing of United States interest rates early in January led to a narrowing of interest differentials *vis-à-vis* United States dollar assets, while wide favorable differentials for Canada remained against several major Continental currencies As a result, the Canadian dollar generally kept pace with the rising United States dollar until late in the period, thereby strengthening considerably against the Continental

Chart 9

Canada

Movements in exchange rate and official foreign currency reserves

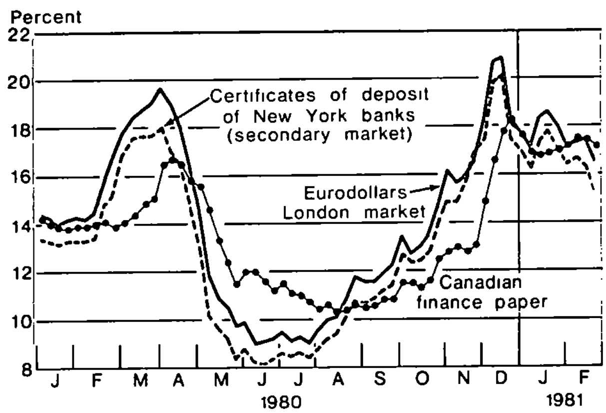


See exchange rate footnote on Chart 3

Chart 10

Interest Rates in the United States, Canada, and the Eurodollar Market

Three-month maturities*



*Weekly averages of daily rates

currencies. Although announcement of decontrol of domestic oil prices in the United States by President Reagan on January 27 refocused market attention on the still unresolved Canadian energy policy controversy and sapped the Canadian dollar of some of its strength, the spot rate was trading some 1½ percent above its December lows at Can.$1 1948 by the close of the six-month period. At this level, it had reduced its net decline against the United States dollar since July to some 3 percent Against the European currencies, the Canadian dollar had gained on balance some 15 percent.

As the Canadian dollar had firmed in the first weeks of January, the Bank of Canada purchased sizable amounts of United States dollars. Also, after drawing $900 million in December on standby credit facilities with Canadian and foreign banks, the Bank of Canada repaid in January the $600 million drawing on Canadian banks, leaving the $300 million drawing on foreign banks still outstanding As a result, Canada's foreign exchange reserves stood at $1.4 billion at the end of the period, down $558 million net over the six months

Swedish krona

Last year, the Swedish authorities were confronted with several economic problems at once. The current account deficit deepened, to nearly $5 billion, as the latest rise in world oil prices added to Sweden's oil-import bill and as export growth slackened The inflation rate accelerated to nearly 14 percent for the year as a whole. A surge in state and local spending contributed to a continuing increase in the government budget deficit to about $10 billion, or over 10 percent of gross national product (GNP) Efforts to deal with these and other issues, such as the long-festering debate over nuclear policy, were hampered by the fact that Sweden was governed by a coalition of parties with only a slender majority in Parliament Consequently, as major adjustment policies were being hammered out, the Sveriges Riksbank had little choice but to tighten monetary policy, both to absorb the excess liquidity generated by the fiscal deficit and to avoid outflows of interest-sensitive funds.

Meanwhile, the Riksbank intervened as necessary to keep the krona within a reasonable range against the index of a trade-weighted basket of currencies, and the government continued to arrange borrowings in the international capital markets to cover the current account deficit and to avoid an excessive drain on reserves. On the possibility that some bridge financing might occasionally be needed as longer term loan packages were assembled, the Riksbank moved to reinforce its short-term credit lines. In this context, in May the Riksbank and the Federal Reserve agreed to increase the swap arrangement by $200 million to $500 million for one year, with the understanding that drawings could be made, if needed, in connection with bridge-financing operations.

Through the spring and early summer, the exchange market for the Swedish krona was rather well balanced, and takedowns on the government's international borrowings ran well ahead of the Riksbank's intervention sales of dollars. By August, however, as the government prepared a new package of measures, rumors of a possible devaluation generated heavy selling pressure on the krona, largely in the form of adverse commercial leads and lags. The krona declined ½ percent during the month, to as low as SK 4.2005 against the dollar, but remained around 100 8 in terms of the official index. For their part, the authorities firmly rejected devaluation on the grounds that it would exacerbate domestic inflationary pressures and do little to solve Sweden's structural problems. The Riksbank stepped up its exchange market intervention, and the government increased the pace of its external borrowings to replenish reserves.

Early in September the government convened an extraordinary session of Parliament and gained approval of a package of fiscal measures, which included a sizable hike in the value-added tax and an increase in taxes on energy consumption. The government followed up by announcing cuts in planned expenditures to reduce the budget deficit. These actions were seen in the markets as positive first steps, and the krona improved somewhat over October and November As some commercial leads and lags ran off, the krona gained ½ percentage point, in terms of its official index, to 100 3, while declining some 5 percent against a strengthening United States dollar to SK 4.36. At the end of November, Sweden's foreign currency reserves remained little changed from the levels of last summer.

Nevertheless, concerns over the outlook for Sweden's fiscal and current account deficits continued to weigh on the exchange market, and the krona's relative strengthening proved short-lived. Devaluation talk revived toward the year-end, and commercial leads and lags turned against the krona once more On January 12 the government announced its proposed budget for the next fiscal year, beginning in July 1981. The deficit was again projected to be large, but the message lacked significant new measures to close the gap The exchange market atmosphere deteriorated further, leading to strong selling pressure on the krona. The Riksbank was obliged to intervene in size to avoid a sharp deterioration of the krona against the official index. On January 20, the Riksbank followed up by announcing a series of forceful measures, hiking its discount rate by 2 percentage points to 12 percent and its penalty lending rate by fully 4 percent to 17 percent, raising long-term rates by about 1 percentage point, doubling the bank's cash reserve requirements from 2 to 4 percent, and imposing a ceiling on commercial banks' lending.

These actions led to a tightening of money market conditions and to a sharp rise in interest rates, but market participants continued to focus on the need for clear new measures on the fiscal side Consequently, the krona remained under heavy selling pressure. The Riksbank's sizable intervention continued, and the government accelerated its pace of negotiating new borrowings, including a $1 billion loan in the Euromarkets. Even so, the intervention had become so heavy that reserves were being drawn down. Consequently, in late January the Riksbank drew $200 million under the swap agreement with the Federal Reserve to be used as bridge financing until new loans could be completed. Against the dollar, the krona declined a further 5¼ percent from November levels to SK 4.5900, while against the official index it slipped to as low as 101 before recovering to 100.3 on the last trading day of the month. On balance, Sweden's reserves declined by $500 million in December-January to $2.5 billion as of January 31.

After the turn of the month, however, the immediate selling pressures on the krona lifted. On February 2, employers and trade unions reached an agreement on a wage package which scheduled much more modest percentage increases than in recent years and incorporated cost-of-living provisions that would make devaluation even more improbable. On February 3, the government announced a far-reaching package of fiscal measures, designed to scale back the size and cost of government and to stimulate private initiative. These developments were well received in the exchange market, and funds began to flow back into the krona, enabling the authorities to replenish external reserves.