August 1979-January 1980 Semiannual Report
(This report was released to the Congress and to the press on March 4, 1980.)

Treasury and Federal Reserve Foreign Exchange Operations

The October 6 measures by the Federal Reserve had a profound effect on exchange markets for the United States dollar. In addition to a rise in the discount rate and the imposition of a marginal reserve requirement on managed liabilities, the Federal Reserve announced that it would place greater emphasis on the supply of bank reserves and less emphasis on the Federal funds rate in seeking to moderate the growth of money and credit in the United States economy. These measures alleviated many of the concerns that had built up in the market and helped the dollar weather the numerous political and economic shocks that occurred over the rest of 1979 and early 1980.

Previously, the dollar had come under very heavy selling pressure as market psychology became increasingly bearish. Last year's upsurge in international oil prices was already adding massively to our oil import bill, slowing the progress in improving our trade and current account balances and exacerbating domestic inflation. Many other prices were also advancing, and speculative buying pressures had erupted in many commodity and real estate markets on the expectation of more inflation to come. As the demand for money had increased in the United States, the Federal Reserve had acted to raise interest rates, but the growth of the monetary aggregates remained uncomfortably high and market participants were concerned that more restraint might be needed. Nevertheless, since the United States economy was widely believed to be moving into recession, market participants openly questioned whether the Federal Reserve would be in a position to continue to tighten monetary policy further in order to deal with inflationary expectations.

By contrast, the monetary authorities of other countries were believed to have scope to tighten further. Economic activity was expanding more rapidly in most other countries, and monetary policies were becoming increasingly restrictive in response to buoyant domestic credit demands and to inflationary pressures arising out of the escalation of international oil prices. With interest rates rising in nearly all industrial countries, market participants began to fear that the monetary authorities of major countries were in competition with each other in pressing for even higher interest rates. In addition, market participants became concerned that the authorities of some countries might act to blunt the effects of higher oil prices on domestic price levels through promoting appreciations of their currencies against the dollar. The swiftness of the authorities of many countries to intervene in support of their currencies, even those which had appreciated sharply in earlier months, reinforced this view. By September, market participants questioned whether central bank cooperation in the exchange market might have broken down. Market concerns

A report by Scott E Pardee Mr. Pardee is Senior Vice President in the Foreign Department of the Federal Reserve Bank of New York and Manager of Foreign Operations for the System Open Market Account

about the outlook for international monetary stability were reflected in the run-up of prices in gold and other commodities.

In fact, the central banks were in close consultation throughout that time in an effort to determine what could be done individually and jointly to relieve the strains that had built up in the exchange markets. When selling pressure increased on the dollar in September, the United States authorities at first intervened heavily, operating mainly in German marks but also in Swiss francs. The German and Swiss central banks, as well as others, also bought sizable amounts of dollars in their markets. When speculative pressures erupted within the EMS (European Monetary System), central banks participating in that arrangement increasingly used currencies other than the dollar in support operations so as not to aggravate pressures on the dollar. By late September, however, it became clear that the dimensions of the flows of funds out of the dollar were too large to be contained by intervention alone. The United States authorities scaled back their intervention, while new measures to combat inflation in the United States were being discussed and while senior United States officials reviewed the matter of policy coordination with their counterparts in other major countries. Although the dollar continued to decline against most major currencies through the end of September, the market began to sense that something was in the works, and early in October selling pressure on the dollar evaporated on expectations that major policy action by the Federal Reserve was imminent.

The October 6 measures were followed by strong expressions of support by major foreign central banks. Although interest rates continued to advance in several other countries, in few instances did they rise by as much as the increase in market rates in the United States over the next few weeks. Moreover, as the dollar gradually firmed, foreign central banks sought to avoid the impression that they would, at that critical juncture, impede its recovery. In the exchange markets, traders reacted cautiously at first but were soon influenced by the sharply higher interest rates that emerged in the domestic and Eurodollar markets, providing for more favorable interest differentials Basically, the dollar had become a much more attractive medium for investment and a very expensive currency in which to carry a short position.

The pull of interest rates, coupled with the market's generally favorable response to the Federal Reserve's new policy approach, helped shield the dollar against the various political shocks that soon followed. On November 4, Iranian militants seized the United States Embassy in Teheran and held its diplomatic personnel hostage. On November 14 the Iranian authorities threatened to withdraw funds from United States banks and to repudiate debts. In response, the United States blocked Iranian official assets in United States banks. Then late in the year the Soviet Union intervened militarily in Afghanistan. There were worrisome economic developments as well. With the domestic economy proving much more buoyant than expected, inflation in the United States continued to increase. There was a further run-up in OPEC (Organization of Petroleum Exporting Countries) oil prices and a mind-boggling surge of prices in the markets for gold, silver, and other precious metals.

As these various uncertainties piled up over the year-end, bearish sentiment toward the dollar deepened once again, and dollar rates began to decline. But selling pressures on the dollar did not cumulate, as before. In part, traders remained cautious in the face of rapid-fire and unpredictable events. Moreover, on those occasions in late 1979 and early 1980 when selling pressures threatened to build, the United States authorities, in close coordination with the German and Swiss central banks, intervened forcefully and quickly to restore two-way trading. By early 1980, the very fact that the dollar was weathering so many uncertainties began to be taken as a positive sign. The market then focused greater attention on other countries' problems, including adverse shifts in their trade and current account balances, sharply rising prices, and dangers to them arising out of the Iranian and Afghan situations. By the month end, dollar rates were firming against major currencies.

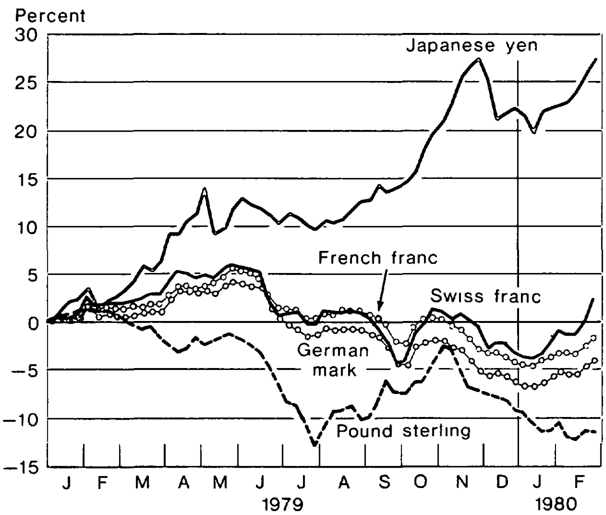
On balance for the six months, the United States dollar declined a net 1½ to 5 percent against the German mark and currencies linked to the mark in the EMS, by 1¾ percent against the Swiss franc, and by 1 percent against the pound sterling. By contrast, the Japanese yen declined against the dollar by 9 percent. The Canadian dollar advanced by 1 percent against the United States dollar.

In intervention during the six-month period, the Federal Reserve and the Treasury sold a total of $5,415.8 million of German marks and $67.0 million of Swiss francs. System operations entailed drawings under the Federal Reserve swap lines in the amount of $2,296 0 million equivalent of marks from the German Bundesbank and $67.0 million of Swiss francs from the Swiss National Bank. The drawings on the Bundesbank started at a level of $2,053.3 million in early August, reached a peak of $3,746.0 million on October 4 and were reduced to $2,630.9 million by January 31, 1980, with repayments throughout the period stemming from mark acquisitions from correspondents. Use of the swap line with the Swiss National Bank was more sporadic, with peak drawings of $44.2 million on

Table 1
Federal Reserve Reciprocal Currency Arrangements
In millions of dollars

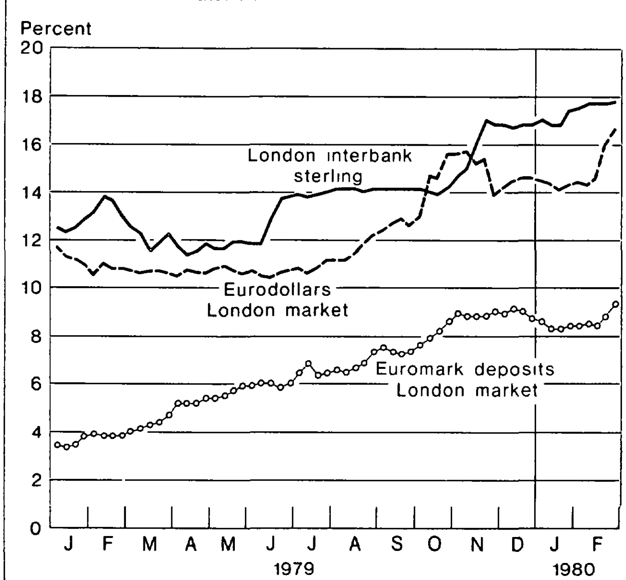
Institution	Amount of facility January 1, 1979	Increase effective August 17, 1979	Amount of facility January 31, 1980
Austrian National Bank	250		250
National Bank of Belgium	1,000		1,000
Bank of Canada	2,000		2,000
National Bank of Denmark	250		250
Bank of England	3,000		3,000
Bank of France	2,000		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	360	340	700
Netherlands Bank	500		500
Bank of Norway	250		250
Bank of Sweden	300		300
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	29,760	340	30,100

Chart 1
The Dollar Against Selected Foreign Currencies



Percentage change of weekly average of bid rates for dollars from the average rate for the week of January 2-5, 1979 Figures calculated from New York noon quotations

Chart 2
Selected Interest Rates
Three-month maturities*



*Weekly averages of daily rates

October 1; all drawings in Swiss francs were repaid by January 31, 1980.

United States Treasury intervention in marks was financed out of previously acquired balances. The Treasury's $337.7 million equivalent drawing and repayment on the Bundesbank swap line early in the period reflected temporary financing, while Treasury holdings of German government securities were being liquidated. To augment balances, the United States Treasury on two separate occasions issued medium-term mark-denominated notes in the German capital market. The first in November, with maturities of 2½ and 3½ years, was for $1,118.9 million equivalent of marks. The second, in January, also with maturities of 2½ and 3½ years, was for $1,168.0 million equivalent.

Also during the period, the Federal Reserve's reciprocal swap arrangement with the Bank of Mexico was increased by $340 million to $700 million.

As indicated in Table 6, the Federal Reserve recorded losses on current operations and on the valuation of balances. The Treasury recorded profits on balances and losses on the valuation of balances.

German mark

Coming into the period, the upturn in the German economy was in full swing. Strong consumption, a surge in business investment, and a boom in construction made it likely that the government's 4 percent growth target for 1979 would be met, if not exceeded. But progress in achieving faster growth was accompanied by escalating inflation. The explosion in imported oil and raw materials prices, together with the strength of the domestic recovery, had generated a sharp rise in wholesale and consumer prices. At the same time, the current account surplus had virtually disappeared as higher oil import costs and the fast pace of economic activity led to a sharp expansion of imports. To contain inflationary pressures, the German authorities progressively tightened monetary policy, leading to a substantial increase in domestic interest rates, which outpaced increases in the United States and elsewhere. As the exchange market focused on monetary conditions in Germany relative to conditions in other major industrial countries, the mark came into strong demand, particularly in June and July. Heavy intervention by the United States and German authorities blunted the mark's rise against the dollar and was partly reflected in an increase in the Federal Reserve's outstanding swap debt with the Bundesbank to $2,053.3 million equivalent of marks as of July 31.

In August, the exchange markets settled down and the mark eased off its highs to trade around DM 1.83 against the dollar. The German authorities then moved to absorb some of the liquidity generated by the summer's intervention, lest it aggravate inflationary pressures at a time when domestic credit expansion was increasing sharply. The Bundesbank introduced quantitative limits on commercial banks' Lombard borrowings, engaged in foreign exchange swaps against dollars, entered into open market purchases of marks against shares of United States Treasury bills held at the central bank, and otherwise signaled its intention to bring down the growth of central bank money to its 6-9 percent target range. These various operations provided a further boost to German interest rates. Moreover, inasmuch as a substantial reflux of funds out of marks back into dollars had not materialized, many in the market interpreted the Bundesbank's actions as indicating an unwillingness to let the mark depreciate should the dollar come into demand. By contrast, in the United States the monetary aggregates were expanding rapidly and inflation continued to accelerate at double-digit annual rates. The Federal Reserve increased the discount rate to 10½ percent and moved the Federal funds rate higher. Nonetheless, in view of considerable talk of an impending recession in the United States, market participants increasingly questioned whether monetary policy would be tightened sufficiently to contain strong inflationary forces.

By early September the mark was again in strong demand against the dollar. Bidding for marks also gained momentum against European currencies amid fears that the currencies of most other EMS members, who might find it difficult to match the tightening of monetary policy taking place in Germany, would be unable to keep pace with the mark's rise. Market participants therefore came to expect that the mark would be revalued within the EMS as part of an upcoming technical review of the new joint float. The Bundesbank and other participating central banks sold progressively larger amounts of marks to maintain exchange rate limits within the EMS. Even so, the demand for marks was sufficiently powerful to pull up EMS currencies as a group against the dollar.

In these circumstances, the United States authorities intervened forcefully once again, selling substantial amounts of marks almost daily during September, largely in the New York market. The Bundesbank also intervened as a buyer of dollars in Frankfurt. On September 19, the Federal Reserve raised the Federal funds rate further and hiked the discount rate ½ percentage point to 11 percent. But the fact that the Board of Governors had approved the discount rate increase by a 4-3 split vote did little to alleviate the market's concern about the United States resolve to combat inflation, and pessimism toward the dollar deepened.

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, 1979	1979 I	1979 II	1979 III	1979 IV	1980 January	System swap commitments January 31, 1980
German Federal Bank	4,434.2	+ 334 2 −1,762 8	+ 790.8 −3,020 8	+3,024.0 − 292 4	+448 5 −913 4	+200 6 −742 1	2,630 9*
Bank of Japan	106 5	− 106 5	-0-	-0-	-0-	-0-	-0-
Swiss National Bank	786 3	+ 74 1 − 860 5	+ 36 2	+ 63 5 − 67 9	+ 12.5 − 44 2	+ 22.7 − 22 7	-0-
Total	5,327 0	+ 408 4 −2,729 8	+ 826.9 −3,020 8	+3,087 5 − 360 2	+461 0 −957.7	+223 3 −764 8	2,630 9*

Because of rounding, figures may not add to totals. Data are on a value-date basis with the exception of the last two columns which include transactions executed in late January for value after the reporting period

* Outstanding commitments as of January 31, 1980 also include revaluation adjustments resulting from swap renewals, which amounted to $130.1 million for drawings on the German Federal Bank renewed during 1979 and January 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, 1979	1979 I	1979 II	1979 III	1979 IV	1980 January	Outstanding January 31, 1980
Bank for International Settlements* (against German marks)	-0-	-0-	+31.0 −31 0	-0-	+39.0 −39 0	+49 0 −49 0	-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 Drawings and Repayments under the Swap Arrangement with the German Federal Bank

In millions of dollars equivalent, drawings (+) or repayments (−)

Amount of commitments January 1, 1979	1979 I	1979 II	1979 III	1979 IV	1980 January	Amount of commitments January 31, 1980
889.4	−878 2*	-0-	+337 7 −337.7	-0-	-0-	-0-

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

* Repayments include revaluation adjustments from swap renewals, which amounted to $11 3 million for drawings on the German Federal Bank renewed during the first quarter.

In this environment, the upward adjustment of the mark by 5 percent against the Danish krone and by 2 percent against other EMS currencies over the September 22-23 weekend relieved tensions within the joint float, but not the pressures against the dollar. Meanwhile, spot oil prices were again vaulting upward, and several oil-producing countries raised their official sales prices above limits set by OPEC last June. With the dollar declining again, fears mounted that the oil producers would abandon dollar oil pricing in favor of a basket of currencies, including the mark, or even demand payment for oil in currencies other than the dollar. More broadly, all commodities markets were hit by a speculative fever as asset holders shifted from "paper" currencies into tangible assets—particularly into gold, whose price soared to $447 per ounce early in October. Corporate treasurers, investment managers, and central banks, all seeking to diversify their portfolios, shifted a massive amount of funds into the mark from the dollar. With the strength and diversity of these pressures raising concerns about international financial stability, the United States authorities scaled back their intervention operations in late September while policy discussions were being held. By October 2, these pressures had propelled the mark to DM 1.7250—near its record highs, about 6 percent above early-August levels and some 11 percent above the levels of mid-June.

In the period from early August through early October, the Trading Desk sold $4,169.0 million equivalent of marks, shared about evenly between the Federal Reserve and the United States Treasury. Most of the Federal Reserve's mark intervention was financed by drawings of $1,844.1 million equivalent on the swap line with the Bundesbank, bringing total drawings to $3,746 0 million after allowing for further repayments of $177.9 million and revaluation adjustments from swap renewals. The remainder of the System's mark sales and all the Treasury's intervention were financed out of balances. The Treasury's $337.7 million equivalent drawing and repayment on the Bundesbank swap line reflected temporary financing, while Treasury holdings of German government securities were being liquidated. Meanwhile, net purchases of dollars together with the sizable intervention in EMS currencies boosted Germany's foreign exchange reserves $3.7 billion from end-July to $47.0 billion by the end of September.

With the mark now approaching the levels reached just prior to the November 1, 1978 United States policy package, the exchange markets were alive with rumors of a new support program for the dollar In the days surrounding the Hamburg meeting between United States and German officials and the annual meetings of the IMF (International Monetary Fund) and the World Bank in Belgrade, Yugoslavia, there was increasing discussion of the need for improved monetary policy coordination between the United States and Germany and, in particular, for the United States to take more effective action to bring its inflation under control. When the market learned of Chairman Volcker's early return to Washington from Belgrade, the mark rate dropped back 1¾ percent from its peak to DM 1.7555 on expectations of dramatic new policy action, and the United States authorities had no further need to intervene.

On Saturday, October 6, the Federal Reserve announced wide-ranging policy measures aimed at bringing the growth of money and credit under better control and thereby dampening inflationary forces. The actions included a 1 percentage point increase in the discount rate to 12 percent and the imposition of an 8 percent marginal reserve requirement on increases in managed liabilities. In addition, the System announced that it would place greater emphasis on the supply of bank reserves in its open market operations and less emphasis on the Federal funds rate in seeking to reach its monetary aggregate objectives. Interest rates in the United States and Eurodollar markets moved up sharply in the days following these measures. Although the exchange markets were initially unsure about the implications of the new policy procedures, participants reacted positively on balance to the change in United States monetary policy and to the rise in dollar interest rates. In fact, the dollar firmed and the mark fell back to trade for several weeks around DM 1.79-1.80 without intervention from the United States or German authorities.

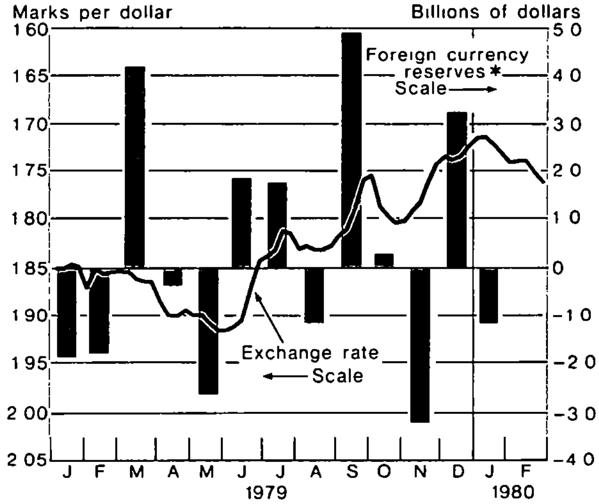
Meanwhile, with the German economy continuing to expand even more rapidly than expected, money market rates had again risen rapidly. On October 31, the Bundesbank raised both the discount and Lombard rates by 1 percentage point to 6 and 7 percent, respectively, so as to eliminate distortions in the banking system and bring official rates in line with those prevailing in the market. But, although the authorities also increased rediscount quotas by DM 4 4 billion to prevent liquidity from tightening too far, short-term German market interest rates moved higher, eroding part of the increased interest differential favorable to dollar-denominated assets. With respect to fiscal policy, the government's draft 1980 budget also moved toward restraint. The central government's net borrowing requirement was cut to less than DM 30 billion in 1980 through a virtual freeze on real spending coupled with higher tax revenues.

After mid-November, new shocks emanating from the revolutionary upheaval in Iran upset the tenuous balance in the exchange markets. The seizure by Iranian militants of American diplomatic personnel at

Chart 3

Germany

Movements ın exchange rate and offıcıal foreıgn currency reserves



Exchange rates shown ın thıs and the followıng charts are weekly averages of noon bıd rates for dollars ın New York Foreıgn currency reserves shown ın thıs and the followıng charts are drawn from IMF data publıshed ın International Financial Statistics

*German foreıgn exchange data ınclude adjustments for gold deposıted wıth the European Monetary System and for foreıgn exchange swaps

the United States Embassy in Teheran produced a crısıs ın Unıted States-Iranıan relatıons, with adverse ımplicatıons for the already fragıle world oıl market. The Iranıan government announced plans to wıthdraw its foreign exchange reserves from United States banks, threatened to repudiate ıts foreign debts, and called on OPEC members to abandon the dollar as a reserve and transactıons currency. Accusations that the Unıted States was ınvolved in the attack on the Grand Mosque in Mecca, Saudi Aradia, incited violent anti-Amerıcan demonstratıons in Pakistan and Libya, and the Ayatollah Khomeinı remained adamant ın calling for the Shah's return to Iran before releasing the United States hostages During all of this, the United States Government sought ın various ways to resolve these challenges wıthout the use of force and, to assure that claims of the United States and its citızens on Iran would be protected, President Carter blocked all offıcial Iranian assets in United States banks, theır foreıgn branches, and subsidiaries.

In the face of these developments, sentiment toward the mark turned bullısh. The exchange markets focused on the dangers to the strategic and financial posıtıon of the Unıted States ın the Middle East and on the dangers to the dollar's role as a reserve asset. Concern over ınternatıonal oil prices was further heightened when OPEC members, at their semiannual meetıng in Caracas on December 17, raised official sales prices another 30 percent, brıngıng the oil price increase over the year to about 100 percent So sharp a rıse in the prıce of oıl was particularly damaging for a country as heavıly dependent as Germany on imports for ıts energy needs and was lıkely to drıve the current account deeply ınto defıcıt But, gıven the prevaılıng market psychology, the OPEC decision was ınterpreted bearishly for the dollar since ıt reinforced the market's pessimism about the United States ınflatıon outlook. Nonetheless, a sustaıned surge of buying pressure on the mark dıd not materıalıze, in part because traders became increasingly reluctant to assume new positions in such an unpredictable political atmosphere, particularly ahead of the year-end As a result, the market was thınner and less resılient than normally, and the mark tended to ratchet unsteadıly upward At times commercial sales, for instance, by large Unıted States multinationals repatriating funds slowed the mark's rıse. On other occasıons when upward presssure on the mark threatened to gather momentum, the Unıted States and German authorıtıes ıntervened. Nonetheless, by the year-end the mark had advanced 4¼ percent from mıd-November levels back to DM 1 7250

After mid-November the United States and German authoritıes resumed intervenıng once again, but their operations were relatıvely modest, compared with previous months In the six weeks through end-December, the Tradıng Desk sold $716 5 mıllion equivalent of marks, ıncluding $396 1 mıllion equivalent for the System and $320.4 mıllıon equivalent for the Treasury. The System's mark sales were largely financed by drawıngs of $251 3 mıllıon equıvalent on the swap line with the Bundesbank However, between early October and the year-end, the System was also able to repay $939.6 million equivalent of mark swap debt through purchases from correspondents so that total drawings outstandıng on the swap lıne wıth the Bundesbank stood at $3,126.4 mıllıon equıvalent at the year-end. The Treasury's interventıon was financed out of ESF (Exchange Stabılization Fund) balances whıch were augmented by the proceeds of a new Treasury issue of mark-denominated securıties floated on the German capital market on November 12, 1979 The issue comprısed $451 0 mıllıon equıvalent of 2½-year securıties at 8 55 percent and $667 9 mıllıon equıvalent of 3½-year securitıes at 8.5 percent.

Coming into the new year, the buildup of sentiment favoring the mark was reinforced by the Soviet Union's military intervention in Afghanistan. The shift in the Middle East strategic balance against the United States raised the possibility that, with the Soviet Union better positioned to exploit instabilities in the vital Persian Gulf area, Middle Eastern holders of dollars would accelerate their purchases of marks and other currencies Moreover, with oil prices still rising even after the substantial OPEC price hike in December, there was little hope for a near-term reduction of United States inflation. All of this contributed to an unsettling rise in the price of gold to $660 an ounce at the onset of the month and led to widespread demand for the mark, propelling the rate to as high as DM 1.6996. But as soon as trading had resumed in the new year, and on several occasions thereafter, the United States and German authorities intervened swiftly and forcefully to steady the rate in their own markets and overnight in Hong Kong and Singapore.

This open and coordinated intervention had a strong impact on market psychology and cast doubt on the mark's continued appreciation. At the same time, the implications of the Afghanistan invasion were reassessed in a way that was less favorable for the mark. The continuing deterioration in great power relations underscored Western Europe's exposure in case of further Soviet aggression. These uncertainties led to a further rise in the price of gold to a record $875 an ounce. But, in the exchange markets, portfolio shifts into marks slowed. Indeed, some capital started to flow out of Germany as market participants sought safer havens for their funds, with a substantial part of this flow coming into dollars. Moreover, the recent round of oil price increases, retroactive to January 1, generated some transactions demand for dollars on the part of several oil companies. In these circumstances, the swing of the German current account into a DM 9 billion deficit for 1979 began to show through in the exchanges, and traders found they had fewer outlets than previously for the marks they had accumulated. As dealers moved to cover their positions, the mark moved lower to around DM 1.7250 by midmonth.

In the final weeks of January, as the exchanges became more settled, market participants focused more closely on changing economic conditions in Germany. Inflation was accelerating rapidly just ahead of key wage negotiations. Moreover, with the oil import bill continuing to swell and with the German economy slowing less rapidly than the economies of its major trading partners, there were expectations that the current account deficit would widen further this year. These concerns began to weigh on the mark at a time when the dollar was being supported by expectations that United States interest rates would move higher. Increased defense expenditures in the President's budget, new evidence that the United States economy had not weakened as expected, and statements by United States Administration officials before the Congress, as well as by Chairman Volcker, that United States interest rates would not come down before inflation declines all supported this view. As a result, the mark edged lower to close the period at DM 1.7414, for a net gain of 5¼ percent over the six-month period under review

During January, the United States authorities inter-

Table 5

United States Treasury Securities, Foreign Currency Denominated

In millions of dollars equivalent, issues (+) or redemptions (−)

Issues	Amount of commitments January 1, 1979	1979 I	1979 II	1979 III	1979 IV	1980 January	Amount of commitments January 31, 1980
Government series:							
Swiss National Bank	600 4	− 597 2	−3 2	-0-	-0-	-0-	-0-
Public series:							
Switzerland	-0-	+1,203 0	-0-	-0-	-0-	-0-	1,203 0
Germany	1,595 2	+1,351 5	-0-	-0-	+1,118 9	+1,168 0	5,233 6
Total	2,195 6	{ − 597 2 +2,554 5	−3 2	-0-	+1,118 9	+1,168 0	6,436 6

Data are on a value-date basis.

vened to sell $290.5 million equivalent of marks for the System, financed in part by drawings of $200.6 million equivalent on the swap line with the Bundesbank, and $239.9 million equivalent of marks for the Treasury. Meanwhile, the Trading Desk took advantage of further opportunities to buy marks through nonmarket transactions with correspondents, which were used to repay swap debt. Thus, by end-January, the System's outstanding swap indebtedness to the Bundesbank declined some $495.5 million equivalent net over the month to stand at $2,630.9 million equivalent after allowing for revaluation adjustments from swap renewals. The Treasury financed its mark sales out of balances, which were further replenished during January through the placement of $1,168.0 million equivalent of mark-denominated bearer bonds in the capital market in Frankfurt, comprising a $560.6 million equivalent 2½-year security at 8.5 percent and a $607.4 million equivalent 3½-year security at 8.45 percent. Reflecting the repayment of swap debt by the United States authorities and by the Bundesbank's partners in the EMS, as well as the conversion of capital exports by the Bundesbank, Germany's foreign exchange reserves declined $1.2 billion during January to $46.2 billion by the month end. However, for the six-month period as a whole, Germany's reserves rose $2.9 billion on balance.

Swiss franc

With the Swiss franc no longer appreciating in the exchanges during 1979, rising international oil and raw materials prices were quickly transmitted to the domestic economy. Inflation in Switzerland accelerated rapidly. The rise in oil prices also boosted imports at a time when export growth was virtually stagnant, leading to a narrowing of the current account surplus. Moreover, economic activity remained sluggish, in sharp contrast to the buoyant economic picture in Germany, and domestic interest rates did not keep pace with the rise in interest rates abroad or with the pickup in domestic inflation. In these circumstances, the franc tended to come on offer in August as it had in earlier periods during the year, especially against the German mark, trading at SF 1.6550 early in the period. The Swiss authorities took advantage of the relative stability of the dollar to sell sizable amounts of dollars, thereby avoiding a depreciation in the franc that would exacerbate inflationary pressures, while also absorbing excess liquidity in the domestic market. Meanwhile, the Federal Reserve bought francs mostly from the Swiss National Bank to repay the remaining $31.7 million equivalent of swap debt incurred earlier in the summer.

During September the sharp deterioration in sentiment toward the dollar was reflected in upward pressure on the Swiss franc But, with interest differentials against the franc having widened, participants shifting funds out of dollars moved more heavily into currencies like the German mark that appeared to have greater upward leeway and offered a higher rate of return. Even though the franc did not lead the generalized rise in the European currencies against the dollar, the Swiss National Bank intervened forcefully both in Zurich and in New York through this Bank as agent to moderate the franc's advance. In addition, during September and early October, the Federal Reserve sold $44 2 million equivalent of Swiss francs, financed by drawings on the swap line with the Swiss National Bank. Largely reflecting these operations, Switzerland's foreign exchange reserves, after declining in August, rose during September to $14.7 billion, up $1.2 billion from end-July levels By October 2, the franc spot rate had risen 7¾ percent above the range of early August to a high of SF 1.5410. At this point, as rumors of a dollar support package began to spread through the exchanges, many participants started covering their long franc positions, and in subsequent days the franc slipped back to around SF 1.5750.

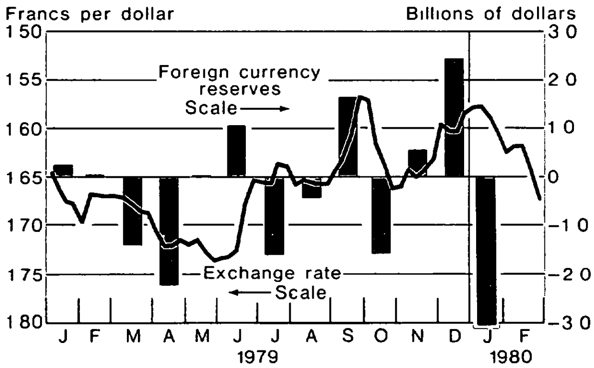
Following the October 6 announcement of policy measures aimed at curbing United States money and credit expansion, the Swiss franc fell back more rapidly against the dollar than the mark. The rise first in dollar-based interest rates and then in German money market rates widened the already adverse interest differentials against franc-denominated assets. Moreover, the public authorities were having difficulty borrowing on the Swiss capital market at the prevailing low level of long-term interest rates. Expectations developed that Swiss interest rates would also firm, and, as the capital market weakened, the incentive increased for bondholders to shift funds out of Switzerland to avoid prospective capital losses. By end-October the franc declined another 5¾ percent to SF 1 67 against the dollar and 2¼ percent *vis-à-vis* the mark. During this time, the Federal Reserve was able to acquire sufficient Swiss francs from correspondents to liquidate outstanding swap debt with the Swiss National Bank.

The Swiss authorities were concerned about the decline of the franc in the exchanges. Inflation had quickened to 5 percent on a year-on-year basis, a dramatic upsurge for a country where, for previous years, price increases had been close to 1 percent per annum. Domestic money supply growth remained worrisome, and there were some fears over a pickup in wage inflation Pay raises during the winter wage round —already clouded by a shortage of labor in the construction sector—threatened to escalate sharply if

Chart 4

Switzerland

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

Table 6

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 1979	+ 0 7	+ 5 7	+ 17 3
Second quarter 1979	+30 8	+ 4 6	+ 21 7
Third quarter 1979	−12 3	+ 63 4	+ 37 0
Fourth quarter 1979	−29 8	+ 20 8	+ 7 5
January 1980	−22 1	-0-	+ 61 2
Valuation profits and losses on outstanding assets and liabilities as of January 31, 1980 ...	−16 3	−375 0	−296 3

Data are on a value-date basis.

industrial workers' demands to be fully compensated for the rising price of oil were successfully negotiated. Even so, the Swiss authorities held off intervening in the exchanges to avoid jeopardizing the dollar's recovery following the October 6 monetary measures. Instead, the Swiss National Bank allowed foreign exchange swaps executed in the third quarter to mature, thereby draining liquidity from the Swiss money market. The central bank then followed up by raising, on November 2, its discount and Lombard rates by 1 percentage point to 2 and 3 percent, respectively, and further liberalized restraints on capital inflows by reducing the negative interest charge on nonresident deposits from 10 to 2.5 percent per quarter.

But with foreign interest rates still on the rise, particularly in Germany, interest differentials remained highly adverse to franc-denominated assets, and the franc spot rate continued to weaken. In response, the authorities removed entirely the negative interest charge on nonresident franc deposits on December 1, supported the franc in the exchanges by selling German marks in the forward market against receipts coming due in 1980 and 1981, and provided a smaller than usual amount of liquidity to the commercial banks at the month end. These measures provided a boost to the franc, which rebounded in early December to trade around SF 1.59 against the dollar.

Meanwhile, the international crisis touched off by the Iranian seizure of American hostages at the United States Embassy in Teheran was creating confusion and uncertainty in the exchanges. At times, the franc benefited from expectations that certain Middle Eastern oil producers would diversify heavily out of dollars. But these inflows did not cumulate. Moreover, in the midst of turbulent events, most traders were hesitant to take positions that would affect their year-end accounts. As the market thinned out during December, the franc responded mainly to the ebb and flow of commercial orders. On balance, sell orders mainly from United States and German corporations repatriating dividends ahead of the year-end outweighed the demand for francs by Swiss corporations, and the franc eased lower toward the year-end.

Early in January, the franc was caught up in a wave of demand as part of the market's initial response to the Soviet invasion of Afghanistan In response, the Federal Reserve sold $22.7 million equivalent of Swiss francs, financed by drawings on the swap line with the Swiss National Bank, while the Swiss authorities bought dollars in Zurich and in New York through this Bank as agent. This intervention helped blunt the franc's rise. Moreover, the continuing increase in Swiss inflation was still of concern, and market participants were keenly aware that interest differentials adverse to the franc had widened further. Once the mark started to ease against the dollar, the franc declined even faster to end the six-month period under review at SF 1.6325, up 1¾ percent on balance against the dollar. Against the German mark, however, the franc declined 3½ percent over the six-month period. By end-January, the Federal Reserve was able to liquidate in full its swap debt with the Swiss National Bank, using the proceeds of interest earnings on franc-denominated balances as well as some francs acquired in the market. Switzerland's foreign exchange reserves declined \$1.6 billion from September levels to \$13.1 billion as of January 31.

Japanese yen

Over the course of 1979, the previous efforts by the Japanese authorities to boost domestic demand and to reduce excessively large trade and current account surpluses took hold. A strong revival in consumer spending and an upsurge in business investment promoted a far more rapid rate of growth, at 8 percent or more, of industrial production in Japan than in any other major country. It also generated a sharp upturn in all types of imports, at a time when the prices of oil and other imported commodities were mounting rapidly. Moreover, export and import volumes continued to respond to the earlier appreciation of the yen and to various administrative programs designed specifically to reduce the trade surplus. As a result, the current account swung from a record \$16.5 billion surplus in 1978, to near balance in the first half of 1979, and into progressively deeper deficit thereafter. The large deficit on the capital account also continued during the first half of the year. Moreover, the implication of the oil shortage for Japan weighed on the yen. The exchange markets reacted to these developments in the spring and summer, and from the beginning of the year to end-July the yen declined a net 10½ percent against the dollar. During that time the Bank of Japan had intervened in substantial volume and foreign exchange reserves plummeted by \$8 billion to \$21.0 billion.

By the opening of the period under review, the thrust of Japanese economic policy was shifting from stimulus to restraint. The authorities were concerned that the yen's depreciation and the sharp rise in oil and other imported commodities prices were adding to inflationary pressures, particularly on the wholesale level. Consequently, government investment expenditures—the main force sustaining the domestic expansion in earlier years—were trimmed back to ease capacity constraints in the construction sector and to combat the growth of the budget deficit. Moreover, monetary policy turned less accommodative as signaled by a full percentage point increase in the Bank of Japan's discount rate to 5¼ percent in late July. These actions, particularly on the monetary front, helped bring the exchange market into better balance, and the yen rate traded quietly between ¥216 and ¥218 during most of August.

Beginning in late August, however, the yen came under renewed selling pressure, as concern over Japan's vulnerability to oil-supply disruptions resurfaced. In the face of disarray in the world oil markets, importers in Japan, as elsewhere, sought to anticipate future oil needs. In the process, spot oil prices began rising sharply once again and the demand for dollars to pay for oil weighed on the exchange market for the yen. Exchange market participants came to fear an even more massive oil import bill for Japan than previously expected. Consequently, the yen resumed its decline, prompting other Japanese importers to hasten to cover their future needs while exporters held off converting their dollar receipts.

Meanwhile, the combined force of the depreciation of the yen and the rise in petroleum and other imported commodities prices had an explosive effect on the wholesale price index, which accelerated to an annual rate of 18 percent by September. Steps to deal with these problems were widely discussed, but action was postponed through early October, largely because Japan was in the throes of an election campaign. Even after the election, on October 7, the market was concerned that the unexpectedly small majority for the ruling Liberal Democratic Party and intense strains within that party would leave little scope for decisive action on the part of the Japanese government. The upward trend in interest rates abroad, punctuated by the jump in interest rates in the United States following the Federal Reserve's October 6 measures, led to a heavy outflow of capital from Japan.

To blunt the yen's decline in the late summer and early fall, the Japanese authorities intervened heavily in the exchanges. Most of these operations were conducted in Tokyo, but some were carried out in New York through the Federal Reserve Bank of New York as agent. In October the Japanese authorities also initiated restraints on capital outflows, closely monitoring foreign borrowing in the yen bond market as well as foreign currency syndicated lending on the part of Japanese banks and other financial institutions. On November 2 the Bank of Japan raised its discount rate 1 percentage point to 6¼ percent. By that time, Prime Minister Ohira had mended important political fences so that attention could be turned to the variety of economic problems facing the government.

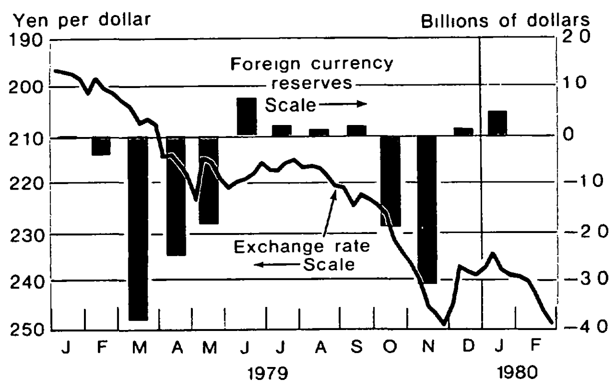
International events nevertheless continued to weigh on exchange market sentiment toward the yen. Skyrocketing spot oil prices and leapfrogging of official prices by OPEC members were seen as especially ominous for Japan. The crisis in United States-Iranian relations exacerbated these concerns, since some 10 percent of Japan's oil imports had come from Iran. Market sentiment toward the yen, therefore, remained bearish, and the yen continued to decline through late

November. By November 27, the yen had dropped to as low as ¥251.50, some 13 percent below the late-August levels. Reflecting the heavy intervention by the Japanese authorities, official reserves declined $4.8 billion to $16.2 billion by end-November.

On November 27 the Finance Ministry and the Bank of Japan jointly announced a series of measures to support the yen. The authorities suspended the import settlement scheme providing Japanese commercial banks with low-cost yen import financing, decided to increase ceilings on the amount of foreign currency convertible into yen by banking institutions (both domestic and foreign), and tightened reporting requirements on the foreign exchange dealings of banks and major trading houses At the same time, to counter domestic inflationary pressures, the Ohira government initiated major restraints on already scheduled public works expenditures, substantially slashing the amount of such outlays for the January-March 1980 quarter. The Bank of Japan followed up on these measures with forceful intervention in the exchanges. These various actions helped settle the market, and the yen began to firm somewhat. Beginning in early December, capital outflows tapered off sharply and the yen came into demand by some countries seeking to diversify their reserves.

In this generally more balanced atmosphere, the yen weathered the uncertainties arising out of the inconclusive OPEC meeting in Caracas in mid-December and the generally heightened world tensions as a result of the Soviet invasion of Afghanistan. The yen rate firmed through mid-December and advanced to as high as ¥230.90 in early January. The yen's rally was not sustained, however. Final figures for 1979 showed a current account deficit of $8.6 billion, and there was little expectation in the market of any early reversal in view of the unfavorable outlook for Japan's oil import bill, particularly as a further round of official oil price increases was precipitated by OPEC members. The continuing upsurge of wholesale prices also remained a concern, and market participants noted the continuing unfavorable interest rate differential between investments in yen and placements in most other major currencies. By end-January, the yen had settled back to around ¥239, some 5 percent above its November lows. Japan's foreign exchange reserves showed little further change in December and January, ending the period at $16 8 billion as compared with $21 billion at end-July.

Chart 5
Japan
Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

Sterling

From early in 1979, sterling had advanced sharply as the positive implications of Britain's near self-sufficiency in oil and the pull of high interest rates more than offset concern about Britain's domestic inflation. The markets were further impressed by the tough anti-inflationary measures taken in June by the new Conservative government headed by Margaret Thatcher. By mid-July, sterling had been bid up to as high as $2.3324 before dropping back to $2.2480 at the month end. The pound had also advanced in trade-weighted terms to as high as 74 before closing at 72.7 percent of its Smithsonian parities. From the beginning of the year, Britain's foreign currency reserves had risen by $2.3 billion to $19.2 billion as of July 31.

In August and September, sterling lost some of its buoyancy. During August, the market reacted adversely to a jump in consumer prices to a rate of 15.8 percent per annum which, however, partly reflected the government's decision to raise the value-added tax as an offset to a cut in personal income taxes. Moreover, there was some concern that the gradual easing of exchange controls, announced as part of the Conservative government's budget message, might lead to heavy outflows of funds. But, with the domestic money market remaining tight, sterling held fairly firm until early September.

In September, key elements of the Thatcher program were coming under challenge as organized labor showed signs of increasing restiveness. The latest pay settlements showed that wage inflation was still accelerating, with even larger wage demands still to be negotiated. Domestic uncertainties were thus viewed in the market as limiting the pound's upside potential for the time being, and sterling declined against the dollar.

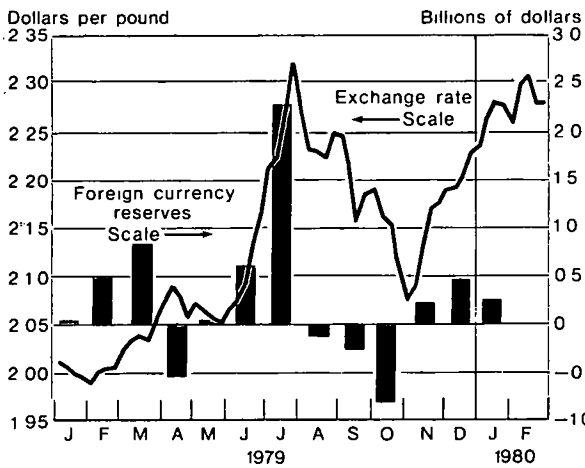
Meanwhile, the German mark had come into heavy demand against both the dollar and the other currencies within the EMS that were linked by formal intervention limits. Sterling is not part of that intervention arrangement. But some traders shifted funds out of the pound into the mark on the possibility that sterling might be brought into the EMS at a depreciated rate. A formal adjustment of the currencies linked to the mark within the EMS on the weekend of September 22-23 relieved the immediate strains among those currencies as well as on the pound's relationship to the mark. Over the next weeks the pound joined in the broader swings of European currencies against the dollar, rising as the dollar weakened through late September, dropping back in response to the tightening measures by the Federal Reserve in early October before settling in around the $2.15 level toward midmonth.

By this time, however, the British authorities were facing an important policy dilemma. Domestic economic growth had virtually stalled, and many analysts were projecting a downturn in 1980. Nevertheless, the case for stimulus was weakened by several facts: inflation was still accelerating; the international trade and current account deficits were still large; the demand for credit was very strong, both by private companies and by the public sector; and the monetary aggregates continued to rise sharply. Unlike rates in most other countries, interest rates in the United Kingdom, while still high by international comparison, had not risen since June. As a result, favorable interest differentials had progressively narrowed. In late October, the authorities took the calculated risk of eliminating the remaining exchange controls on resident outflows of funds. Although the actual movement of funds was not large, market participants expressed concern that the potential for outflows added to the downside risk for sterling. Spot sterling dropped back to as low as $2.0580 on November 2, with the Bank of England intervening to smooth the decline. On balance, from August through October, Britain's foreign currency reserves declined by $1.1 billion.

Chart 6

United Kingdom

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

Sterling steadied over the next days, as traders began to trim positions in anticipation of a hike in interest rates in the United Kingdom. Such a move was widely expected in view of the growing difficulty facing the authorities in placing gilt-edged securities at current rates. When the action came, it exceeded market expectations. On November 15, the Bank of England's minimum lending rate was jumped by 3 percentage points to a record 17 percent. This move was accompanied by a strong statement by the authorities that they would not accommodate the recent surge in monetary growth. In addition, the supplementary special deposit scheme, the "corset", was extended for a further six months; banks were subsequently asked not to avoid the corset by recourse to the Euro-sterling market. After the announcement of these new measures, the government was able to resume financing its deficit, selling large amounts of gilt-edged securities. The higher interest rates prompted renewed bidding for sterling, which advanced to $2.1920 at the end of November.

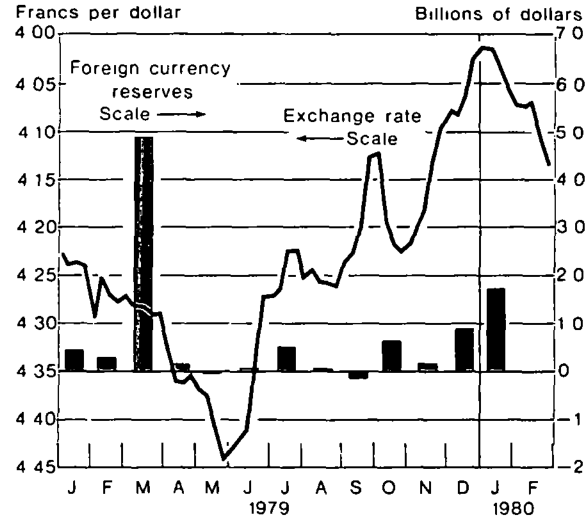
By that time also, the political crisis in Iran and the United States freeze of Iranian assets had generated fears that oil supplies would be cut off, that Iran would decide to take payment for oil in currencies other than the dollar, and that funds would move out of the dollar. Individual OPEC members announced new increases in the price of oil, and this leapfrogging continued even after OPEC's semiannual meeting in Caracas. Among the industrial countries, the United Kingdom was seen in the market as especially able to protect itself in view of the following considerations: an asssured supply of oil from the North Sea, an oil-pricing policy linked to current world prices, close traditional relationships with many OPEC members currently piling up reserves, capacious money and capital markets available to foreign investors, and higher interest rates than available almost anywhere else.

Consequently, during the period of international tensions in late 1979-early 1980, heavy flows of funds came into sterling from the Middle East, Europe, and the United States. As the spot pound began to rise, commercial leads and lags swung in favor of sterling, adding to the upward pressure on the rate. The Bank of England intervened to smooth the rise in the rate but did not meet the market's full demand for sterling lest more substantial intervention might undercut the authorities' domestic monetary policy objectives. As funds continued to flow into sterling, market professionals sensed more upward potential in sterling than in other European currencies. As a result, even though the dollar firmed somewhat against other European currencies in January, sterling continued to advance across the board to as high as $2.2950 by midmonth. The rate dropped back on concerns that the outbreak of a national steel strike could lead to a major challenge to the government's wage policies. The influx of hot money funds nevertheless continued, and the spot rate closed firm at $2.2715 on January 31. Both against the dollar and on a trade-weighted basis, sterling rose almost 1½ percent over the six-month period. Largely reflecting the intervention late in the period, the United Kingdom's foreign currency reserves moved back up to $18.9 billion as of January 31, for a $300 million decline on balance.

Chart 7

France

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3.

French franc

By the time of the formal inauguration of the EMS in March 1979, the French franc was trading comfortably in the middle of the new joint floating arrangement and, against the German mark, around levels prevailing at the time the EMS had first been proposed. The relative buoyancy of the franc reflected in part an improvement of France's economic performance after several years of stabilization policies aimed at curbing inflation, securing a strong balance of payments, and improving the competitiveness of French industry. France's current account had swung into surplus. Also the rate of inflation, after a brief upsurge in response to the government's relaxation of long-standing price controls, had fallen back to around 9 percent by early 1979. In addition, the franc was bolstered by relatively high interest rates at home that reflected a continuation of the rather restrictive monetary policy directed to narrowing France's remaining adverse inflation differentials *vis-à-vis* its key trading partners, particularly Germany.

Around midyear, however, market participants began to question whether the franc could maintain its relative firmness. Inflation in France as elsewhere picked up considerably in response to the upsurge in international oil prices. The government's increase in public utility charges and household rents, part of its longer term strategy of decontrolling prices and reducing public-sector financing needs, also contributed to the overall rise in domestic prices. Meanwhile, unemployment was high and increasing again, even as economic growth remained reasonably strong, partly because of the rapid growth of the labor force and partly because of the shift in policy emphasizing a shakeout of inefficient labor to moderate unit labor costs and to increase competitiveness. Traders became concerned that the French authorities might not have as much scope as those in Germany and elsewhere to tighten monetary policy in response to the rekindling of inflationary pressures. The authorities in fact allowed domestic money market rates to rise, thereby maintaining interest differentials favorable to the franc. Moreover, to the extent that the franc came under selling pressure within the EMS, the Bank of France intervened increasingly through sales of German marks rather than exclusively in dollars, so as not to aggravate pressure on the dollar at the time. As the exchange markets became more settled in early August, the franc steadied within the EMS and traded around FF 4.25 against the dollar. With the impact of the intervention more than offset by valuation adjustments, especially those associated with the French entry into the EMS, official foreign exchange reserves rose to $14.5 billion by end-July.

By September, however, concerns about the prospects for the French economy intensified. Efforts to improve upon business profitability had failed to generate a strong revival in private investment, as hoped for. Consequently, economic growth tapered off, as consumption began to slow under the influence of rising inflation, increased social security contributions, and sluggish real wages. Also, the current account surplus was being eroded by a sharp swing of the trade account back into deficit. The favorable impact of the franc's appreciation during 1978 on France's terms of trade had run its course. Moreover, a buildup of stocks and inflation-induced anticipatory purchases underpinned a more rapid growth of import volume, while markedly higher oil prices bloated import values. As these developments brought the government's economic policies under growing domestic criticism and cast doubt on the durability of the Barre government's austerity program, market confidence in the franc weakened just as the technical review of the EMS approached. Expectations grew that the franc, along with the other EMS currencies, would be adjusted downward against the German mark, which again was rising rapidly against the dollar in the exchanges. Adverse commercial leads and lags and speculative short positions built up against the franc. Thus, the French currency fell toward its lower limit against the mark within the joint float even as it gained 2½ percent against the dollar to trade around FF 4.15. As selling pressures intensified, the Bank of France once again intervened forcefully, selling substantial amounts of marks almost every day during September.

Over the September 22-23 weekend, as part of an overall realignment within the EMS, the parity of the franc was cut by 2 percent against the mark. Meanwhile, the authorities had presented their policy proposals for 1980, reflecting a continued commitment to fight against inflation while boosting employment largely through selective measures. The Bank of France reinforced the cautiously restrictive stance of monetary policy by maintaining, in the face of higher inflation, the 11 percent target for monetary growth in 1980. The government's draft budget projected a slight reduction of the government's borrowing requirement to 1.5 percent of GNP (gross national product) as a result of some tax increases and stricter limits on current expenditures At the same time, investment expenditures were increased and youth employment programs were expanded. These actions helped clear the air. Once the speculative pressures in the exchange market dissipated, following the October measures of the Federal Reserve, the selling of francs dried up. Indeed, as French interest rates continued to rise, thereby preserving the favorable interest differential on franc-denominated assets *vis-à-vis* mark-denominated instruments, funds began to flow back into the franc and previously adverse leads and lags started to be unwound. These reflows provided sufficient support to the spot rate that it held steady around FF 4.20 through late October-early November even as the current account surplus narrowed further.

In the aftermath of the sharp deterioration in United States-Iranian relations and the United States freeze of Iranian assets in mid-November, demand for the franc gathered momentum. France's traditionally good relations with the Middle East benefited the franc in two ways. Part of any anticipated increase in OPEC's dollar sales was expected to gravitate into the franc and, in fact, some inflows from the Middle East did materialize. In addition, market participants felt that the impact of potential oil supply disruptions resulting from the Iranian crisis would be less severe for France than for most other major economies. In this atmosphere, French residents accelerated their spot and forward franc purchases, while nonresidents increasingly covered short positions taken up earlier. Consequently, the franc moved to the top of the EMS in mid-November. These inflows tapered off after the passing of the year-end. but somewhat more favorable figures on output, employment, and prices moderated some of the earlier concerns about prospects for the French economy. The franc then recovered, trading at the close around FF 4.07 against the dollar, and rebounded to the upper end of the joint float.

During the last 2½ months of the period, the Bank of France on occasion intervened both to moderate the rise in the rate and to keep the franc within the obligatory 2¼ percent EMS margin. These operations, which more than offset earlier intervention sales, together with revaluation adjustments, contributed to a $3.3 billion rise in France's foreign exchange reserves over the six months to $17.8 billion as of January 31.

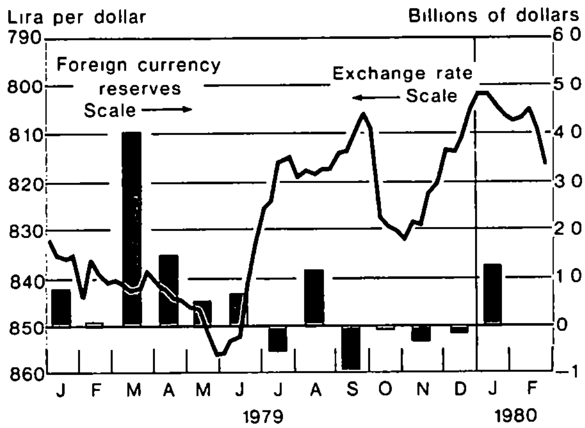
Italian lira

Following the implementation of the EMS in the early spring of 1979, the Italian lira moved quickly to its 6 percent upper limit and traded for several months at the top of the new joint float. Underpinning the lira was Italy's current account position which, after registering a $6.4 billion surplus in 1978, remained in sizable surplus even as the economy expanded through the early spring. In addition, the lira was buoyed by high domestic interest rates and restrictions on domestic credit expansion, which encouraged Italian commercial banks and companies to satisfy their financing needs through external borrowings. With the lira in heavy demand, the rate moved up to LIT 818.70 by July 31. Meanwhile, the authorities bought substantial amounts of dollars, increasing Italy's foreign ex-

Chart 8

Italy

Movements in exchange rate and official foreign currency reserves



See exchange rate footnote on Chart 3

change reserves to $17.6 billion by July 31 even after repayment of some official debt.

By summer, Italy's inflation performance was again a major cause for concern Prices had accelerated to 14-15 percent per annum, largely in response to increased economic growth and rising import prices, and were expected to reach 17-18 percent by the year-end once the dramatic rise in international oil prices worked its way through the economy An unsettled political situation ahead of the elections in June had prevented Parliamentary approval of the longer range stabilization program, which aimed at diminishing the size of the government deficit in relation to GNP while also orienting expenditures increasingly toward productive investment Indeed, capital projects had been delayed and the public-sector borrowing requirement was taking up an even larger share of GNP Moreover, major wage contracts already signed pointed to sizable pay raises above and beyond the comprehensive cost-of-living increases provided under the scalamobile The June election resulted in a loss for the Communist Party and its return to opposition and produced a coalition minority government headed by the Christian Democrats.

To moderate inflationary pressures, the authorities absorbed surplus liquidity by placing government bonds with the banks and, increasingly, with the general public Also, the government continued to use some of the increase in foreign exchange reserves to repay outstanding official debt With respect to interest rates, however, the authorities faced a dilemma Given the acceleration of inflation, interest rates appeared low from a domestic standpoint. But the current account surplus was already creating excess demand for the lira in the exchanges, and the central bank was already intervening and facing the associated risk of a renewed burst in money supply growth Consequently, Italian interest rates were kept fairly stable through the summer. Even so, with tourist receipts exceptionally strong, the lira appreciated more rapidly against the dollar than most European currencies and was trading at LIT 812.00 in early September

During September when strains developed within the EMS, the lira continued to trade at the top of the joint float. It was nonetheless adversely affected by the continued firming of interest rates abroad, which narrowed differentials in favor of lira placements As earlier capital inflows dried up and even began to be reversed and as tourist receipts tapered off, the lira began to decline within the EMS and the Bank of Italy sold some dollars to support the rate. Then, following the realignment of the currencies within the joint float, which included a downward adjustment of 2 percent for the Italian lira against the German mark, the lira emerged well away from the upper intervention point. The authorities, therefore, had greater scope to raise interest rates to counter increasing domestic inflationary pressures On October 8 the discount rate was hiked 1½ percentage points to 12 percent. But, in view of the sharp advance in foreign interest rates, particularly Eurodollar rates, Italian banks and companies continued to repay previously uncovered Eurocurrency debts and the lira declined more rapidly than other European currencies against the dollar. By mid-November the lira had fallen to the middle of the EMS band, while dropping off 2½ percent to LIT 832 50 against the United States currency.

Meanwhile, the less buoyant economic outlook for other countries diminished Italy's export prospects in the months ahead. Consequently, the government's 1980 draft budget sought to provide some stimulus through tax relief, to alleviate the risk of an abrupt economic slowdown Concern developed, however, in view of the already massive fiscal deficit, the public's growing reluctance to buy long-term government debt, the already high rates of domestic inflation, and the renewed rise in international oil prices which was only likely to exacerbate inflation further

On December 6, the Bank of Italy again acted to tighten monetary policy, by hiking the discount rate 3 percentage points to 15 percent and by tightening credit ceilings Initially, the boldness of these initiatives was undercut by the lag in Italian short-term interest rates behind the official rate increase. Also, Saudi

Arabia's decision to suspend oil deliveries in the wake of reported irregularities in the arrangement of a major oil supply agreement prompted fears that Italy would soon be faced with an oil shortage. By the year-end, however, domestic liquidity had become exceedingly tight, and Italian money market rates, after adjusting more fully to the rise in the discount rate, increased to 18 percent or more. Moreover, the government moved unexpectedly to curb energy demand by raising domestic prices of gasoline, heating oil, and electric power. In view of these developments, sentiment toward the lira improved somewhat. Consequently, as the dollar firmed in the final weeks of January, the lira eased back somewhat less than the German mark and most other European currencies. In fact, by the month end the lira was again trading nearly at the top of the EMS and, at LIT 807.50, was 1⅜ percent higher against the dollar over the six-month period under review. Meanwhile, Italy's foreign exchange reserves increased to $18.5 billion as of January 31.

European Monetary System

After having been launched in March, the EMS, with intervention arrangements among seven of the member currencies of the European Community, experienced some tugging and pulling among exchange rate relationships but no major strains. The authorities had initially planned to review some of the technical features of the EMS mechanism after the first six months of operation As this review approached in September, some strains began to build within the array of currencies in the joint float in view of disparities in economic performance, current account positions, and inflation rates among the participants.

Even though the German mark's sharp rise against the dollar pulled up all the EMS currencies and helped reduce inflationary pressures in the member countries, serious questions remained about whether all the currencies could keep pace with the mark Belgium and Denmark in particular faced widening current account deficits even though their economies were sluggish and unemployment remained high. The Dutch current account was also in deficit, although the gap was reduced by large exports of natural gas Increases in the price of oil widened the payments imbalances of all joint float members. But the market remained fearful that many countries with large deficits would be unable to attract sufficient capital inflows to maintain existing parities within the joint float

During September, while European monetary officials were engaged in their scheduled six-month review of the new currency arrangement, exchange market participants began to speculate on a change in parities within the joint float. By late September, funds were flowing heavily into the mark out of other member currencies, which then fell toward the bottom of the joint float. In response, the respective central banks intervened heavily, mostly by selling marks against their own currencies.

On September 23, the EMS currencies were realigned, with a 5 percent upward adjustment of the mark against the Danish krone and a 2 percent upward adjustment against all other member currencies. This adjustment, together with the Federal Reserve's October 6 announcement of new measures to restrain monetary growth, reduced the immediate strains within the EMS. The mark moved back toward the center of the realigned joint float, while the lira, the French franc, and the krone traded toward the top. The Irish pound and the Dutch guilder fluctuated in the middle of the band, while the Belgian franc remained near the bottom.

The EMS currencies traded in a fairly well-balanced market during the rest of October and into November. But flows of funds back out of the mark remained modest. Meanwhile, the current account deficits of all member countries continued to widen, and in late November strains reappeared in the markets for the currencies of these countries.

The Dutch authorities responded by raising interest rates sharply and squeezing domestic liquidity. As short-term interest rates snapped higher, the guilder rebounded to trade firmly in the upper half of the joint float by mid-December. The French and Italian authorities responded in a similar fashion, and the French franc and Italian lira strengthened within the EMS. In Ireland, interest rates had remained firm throughout the period, and the Irish pound traded comfortably in the joint float through the end of January.

By contrast, on November 30 the Danish authorities announced a further 4.76 percent downward adjustment in the krone's parity against other EMS members. This move was linked to the government's announcement of a new economic program, combining stiff wage and price restraint with heavier taxation. Following these actions, the krone rose briefly to the top of the joint float before moving back toward the bottom where it required further official support in January.

The Belgian franc also came under persistent selling pressure within the joint float. These pressures reflected a widening of the Belgian current account deficit to $3 billion in 1979, linked to an increasing budget deficit. The Belgian authorities reacted to these pressures by intervening heavily and raising domestic interest rates. But political and social difficulties reduced the government's ability to deal forcefully with the country's underlying payments imbalances The increases in Belgian interest rates were not sufficient to prevent capital outflows as foreign interest rates rose even more sharply. Moreover, the two downward adjustments in the Danish krone left the franc even more exposed. In response, the Belgian authorities sold large amounts of dollars and other EMS currencies, financing this intervention mostly out of the foreign exchange proceeds of government borrowings. The franc thus stayed above the floor of the joint float through the end of January.

Canadian dollar

Through early 1979, exchange market sentiment toward the Canadian dollar had been pessimistic. Canada's trade and current account positions had not improved as rapidly as had been hoped, leaving a gap of some $5 billion-$6 billion to be financed by capital inflows. Moreover, international borrowings by Canada's provincial and municipal corporations tapered down. This left the Canadian dollar dependent on interest-sensitive capital flows and other potentially volatile sources of funds to cover the current account deficit. But the strain in international oil markets over the course of the year changed the market atmosphere for the Canadian dollar. Canada's wealth of natural resources sheltered it from the uncertainties facing other industrial countries regarding energy supplies and even afforded it the opportunity to increase its exports of natural gas. In addition, interest rates in Canada had risen to levels that attracted funds from abroad. As a result, the Canadian dollar bottomed out in early February and, though it had been higher during the spring, the spot rate was still up on balance by 2¾ percent at Can.$1.1700 by the end of July. Net intervention purchases of United States dollars during that recovery plus the dollar proceeds of medium- and long-term borrowings in Swiss francs and Japanese yen enabled the Canadian authorities to make large repayments on outstanding drawings under the standby facilities with commercial banks. Foreign exchange reserves stood at $2.1 billion through the end of July.

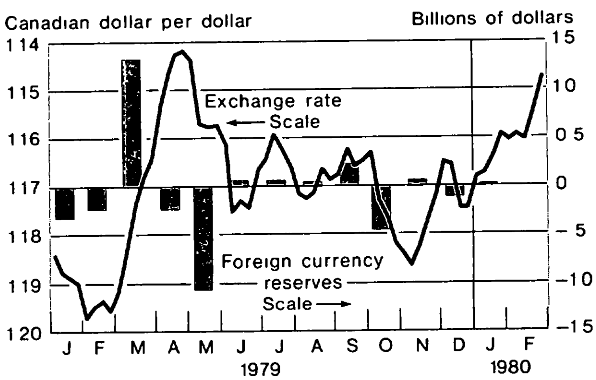
In August and early September, the Canadian dollar nevertheless was again vulnerable to bouts of selling pressure. The most recent figures suggested that Canada's trade performance remained disappointing. Production was running up against capacity restraints in key export industries, and import substitution in response to the previous decline in the exchange rate was proceeding surprisingly slowly. In addition, inflation was accelerating, the budget deficit was already large, and the fiscal gap was likely to widen further if domestic energy prices were not soon brought up to international levels Moreover, the continuous rise in interest rates in the United States and Western Europe was squeezing out the interest differentials favorable to Canada. As a result, the Canadian dollar came on offer from time to time.

On September 10 the Bank of Canada raised its discount rate ½ percentage point to 12¼ percent, a move which was well received in the market, and

Chart 9

Canada

Movements in exchange rate and official foreign currency reserves

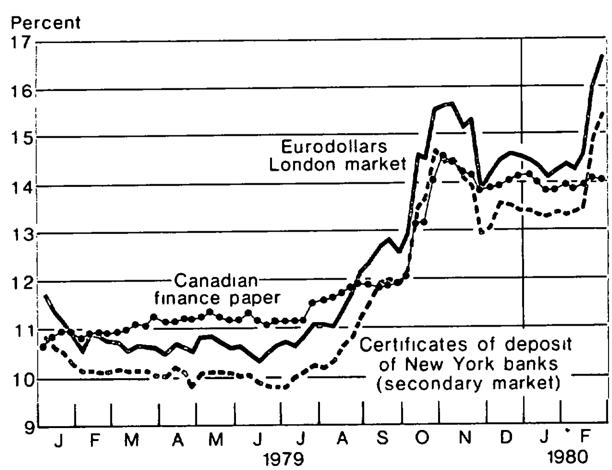


See exchange rate footnote on Chart 3

Chart 10

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

Three-month maturities*



*Weekly averages of daily rates

restored favorable interest differentials for a time. Later in the month, inflows from Europe and the Middle East in advance of another OPEC meeting helped push the Canadian dollar up to as high as Can.$1.1563 by September 28. Also, the Canadian dollar was bid up by conversions of external borrowings of some government agencies and private corporations. But this buoyancy was short-lived in view of the substantial increase in interest rates in other countries, particularly in the United States following the Federal Reserve's October 6 measures. Selling pressure on the Canadian dollar resumed. On October 9, Canada raised its discount rate a further ¾ percentage point to 13 percent. But commercial leads and lags moved heavily against the Canadian dollar, and the rate dropped some 2½ percent to as low as Can.$1.1881 by October 23. The Bank of Canada responded to these pressures by intervening to moderate the decline in the rate. On balance, Canada's official reserves declined a net $183 million to $1.9 billion in the three months ended October 31.

By early November, however, the outlook for the Canadian dollar began to improve. The Bank of Canada had moved further in the direction of monetary restrictiveness by raising its discount rate again, this time by a full percentage point to 14 percent on October 25. Export figures for the year to date were revised upward, which led forecasters to scale back their estimates of the 1979 current account deficit, eventually to $5 billion. The crisis in Iran shifted much of the market's focus back to concerns about energy. Traders therefore moved to cover short positions, and some adverse commercial leads and lags were unwound. Moreover, the reappointment of Bank of Canada Governor Bouey and Deputy Governor Lawson to new seven-year terms was welcomed in the market as signaling a continuing policy of restraint. In this environment, expectations grew that the government's budget, to be announced in mid-December, would tilt cautiously toward restraint. By early December the Canadian dollar had risen to Can.$1.16.

As expected, the December 11 budget message focused on the need to cut Canada's fiscal deficit and to raise domestic energy prices. Two days later, however, the Clark government lost a vote of confidence on its budget proposals, forcing a national election. Although the Canadian dollar initially came on offer, a net influx of funds continued in response to Canada's attractive interest rates and favorable energy availability. The spot rate soon bounced back, and by January the Canadian dollar was in strong demand. Following news of a 30 percent increase in natural gas export prices as well as of a larger than expected November trade surplus, the rate rose to as high as Can.$1.1566 on January 24.

By that time, concerns that the general election to be held in mid-February might result in another minority government began to dampen demand for Canadian dollars. Moreover, another advance in United States interest rates, including a particularly sharp rise in bond yields, weighed on the Canadian dollar which drifted back to Can.$1.1574 on January 31. On balance, over the six-month period, the Canadian dollar rose by 1⅛ percent.

Meanwhile, the Bank of Canada's United States dollar purchases over the last three months of the period, together with sales of more than 250,000 ounces of gold at market prices (well above book value), were used to repay remaining drawings under the short-term credit facilities with Canadian commercial banks. The short-term revolving standby facilities with Canadian banks and with foreign banks remained available to the government of Canada. Canada's foreign exchange reserves changed little during the last three months of the period and stood at $1.9 billion as of January 31, down $199 million net over the six-month period.