Treasury and Federal Reserve Foreign Exchange Operations

This quarterly report describes Treasury and System foreign exchange operations for the period from October through December 1996. It was presented by Peter R. Fisher, Executive Vice President, Federal Reserve Bank of New York, and Manager for Foreign Operations, System Open Market Account. Richard Dzina was primarily responsible for preparation of the report.[1]

During the quarter the dollar appreciated 3.9 percent against the yen and 0.9 percent against the mark, at one point establishing forty-five-month and twenty-four-month highs of ¥116.40 and DM 1.5665 respectively. On a trade-weighted basis against the currencies of the other Group of Ten countries, the dollar appreciated 0.2 percent. The dollar strengthened despite a shift in market expectations during the quarter from anticipation of a near-term tightening of U.S. monetary policy to the view that the Federal Open Market Committee (FOMC) would not take any action through the end of the year. Against the yen, the dollar was supported by perceptions of substantial Japanese capital outflows, as economic data and concerns about the Japanese financial system reaffirmed expectations that Japanese monetary policy would remain unchanged. After trading slightly

1. The charts for the report are available on request from Publications Services, Mail Stop 127, Board of Governors of the Federal Reserve System, Washington, DC 20551.

1. Foreign exchange holdings of U.S. monetary authorities based on current exchange rates, 1996:Q4

Millions of dollars

Item	Balance, Sept. 30, 1996	Quarterly changes in balances by source				Balance, Dec. 31, 1996
		Net purchases and sales[1]	Impact of sales[2]	Investment income	Currency valuation adjustments[3]	
FEDERAL RESERVE						
Deutsche marks	13,038.9	.0	.0	90.8	−99.6	13,030.1
Japanese yen	6,376.8	.0	.0	6.2	−230.3	6,152.7
Interest receivables[4]	72.0	...	...	...	...	81.7
Other cash flow from investments[5]	−3.5	...	...	...	...	−1.0
Total	**19,484.2**	...	...	...	...	**19,263.5**
U.S. TREASURY EXCHANGE STABILIZATION FUND						
Deutsche marks	6,599.8	.0	.0	45.3	−50.4	6,594.6
Japanese yen	9,348.5	.0	.0	6.2	−331.1	9,023.6
Mexican pesos[6]	3,500.0	−69.1	.0	69.1	.0[7]	3,500.0
Interest receivables[4]	39.1	...	...	...	...	49.6
Other cash flow from investments[5]	1.2	...	...	...	...	6.2
Total	**19,488.6**	...	...	...	...	**19,161.7**

NOTE. Figures may not sum to totals because of rounding.

1. Purchases and sales include foreign currency sales and purchases related to official activity, swap drawings and repayments, and warehousing.

2. Calculated using marked-to-market exchange rates; represents the difference between the sale exchange rate and the most recent revaluation exchange rate. Realized profits and losses on sales of foreign currencies computed as the difference between the historic cost-of-acquisition exchange rate and the sale exchange rate are shown in table 2.

3. Foreign currency balances are marked to market monthly at month-end exchange rates.

4. Interest receivables for the ESF are revalued at month-end exchange rates. Interest receivables for the Federal Reserve System are carried at average cost of acquisition and are not marked to market until interest is paid.

5. Cash flow differences from payment and collection of funds between quarters.

6. See table 4 for a breakdown of Mexican swap activities. Note that the investment income on Mexican swaps is sold back to the Bank of Mexico.

7. Valuation adjustments on peso balances do not affect profit and loss because the effect is offset by the unwinding of the forward contract at the repayment date. Although the ESF does not mark to market its peso holdings, Mexico is obligated to maintain in dollar terms the value of ESF peso holdings resulting from Mexican drawings under the Medium-Term Stabilization Agreement.

weaker against the mark early in the period, the dollar appreciated against the German currency after calls from several European officials welcoming further depreciation of their currencies. Also, general optimism about the European Monetary Union (EMU) process prompted flows out of marks into other European currencies. The U.S. monetary authorities did not undertake any intervention operations during the quarter.

General Stability of Exchange Rates

The relative stability that characterized foreign exchange markets through the first three quarters of 1996 continued during the period. Although the average daily trading range for the dollar increased slightly from the previous quarter, it remained substantially less than the range observed for the same period in 1995. On average, the dollar traded in a daily range of 0.7 percent against both the mark and the yen. This compares with daily ranges of 0.6 percent against both currencies in the previous period and with daily ranges of 1 percent against the mark and 1.1 percent against the yen for the fourth quarter of 1995. Despite a few brief periods of sharp movements, the dollar generally firmed in a moderate manner throughout the period.

Nevertheless, implied volatility on dollar–mark and dollar–yen one-month options increased during the quarter. The probability distribution of future exchange rates implied by currency options prices became notably wider, possibly a reflection of some concern about the variability of the future spot rate.

A Shift of Expectations for U.S. Monetary Policy to Neutral

In September the decision of the FOMC to leave rates unchanged, followed by evidence of an economic slowdown and benign inflationary pressures, shifted expectations for U.S. monetary policy from near-certain tightening in late 1996 to a widespread consensus that the Committee would not take any action by year-end. At certain points during the quarter, the weaker data even spawned tentative discussions of the prospect of easing. Despite the shift in market expectations and the corresponding downward trend in U.S. forward rates, the dollar appreciated during the period as non-U.S. factors appeared to dominate currency trading.

2. Net profits or losses (–) on U.S. Treasury and Federal Reserve foreign exchange operations based on historical cost-of-acquisition exchange rates, 1996:Q4

Millions of dollars

Period and item	Federal Reserve	U.S. Treasury Exchange Stabilization Fund
Valuation profits and losses on outstanding assets and liabilities, Sept. 30, 1996		
Deutsche marks	2,065.5	636.6
Japanese yen	1,211.2	1,783.0
Total	**3,276.8**	**2,419.6**
Realized profits and losses from foreign currency sales, Sept. 30, 1996–Dec. 31, 1996		
Deutsche marks	.0	.0
Japanese yen	.0	.0
Total	**.0**	**.0**
Valuation profits and losses on outstanding assets and liabilities, Dec. 31, 1996[1]		
Deutsche marks	1,965.9	586.1
Japanese yen	984.5	1,450.8
Total	**2,950.4**	**2,036.9**

Note. Figures may not sum to totals because of rounding.

1. Valuation profits or losses are not affected by peso holdings, which are canceled by forward contracts.

Depreciation of the Yen amid Perceptions of Japanese Capital Outflows

Japanese economic data, as well as the failure of several financial institutions, suggested that the pace of economic recovery in Japan had not accelerated and bolstered market expectations that a near-term tightening of Japanese monetary policy was unlikely. The anticipation of fiscal contraction in 1997 and weakness in the Nikkei stock index helped solidify this view.

The yen weakened substantially in this environment, not only against the dollar but also on a trade-weighted basis as ongoing reports of capital outflows from Japanese investors seeking higher yields overseas pressured the currency. In October and November net capital outflows from Japan exceeded 1 trillion yen each month. Reportedly contributing to the capital outflow was the reallocation of additional funds from domestic to international portfolios with the start of the Japanese fiscal half-year on October 1.

As the yen continued to weaken, market participants began to speculate about the degree of official tolerance for additional depreciation of the Japanese currency. On November 7, comments by Japanese officials suggested that Japanese economic weakness was overstated and that the yen was unlikely to weaken further. After having strengthened more than ¥114 earlier in the quarter, the dollar retraced most of its earlier gains after these comments were made, weakening almost 2 yen, the sharpest one-day move in the period. Although speculation about Japanese official views on the exchange rate dominated dollar–yen trading for the remainder of the quarter, the yen continued to depreciate as market participants saw little tangible evidence of a Japanese economic recovery.

U.S. and Japanese trade data during the period suggested that the pace of adjustment in the Japanese external imbalance might be slowing and focused attention on the rising dollar as a potential trade issue. Nevertheless, trade data released during the period had little lasting effect on currency trading, and expectations of Japanese capital outflows dominated market psychology.

3. Currency arrangements, December 31, 1996

Millions of dollars

Institution	Amount of facility	Outstanding, Dec. 31, 1996
	Federal Reserve Reciprocal Currency Arrangements	
Austrian National Bank	250	0
National Bank of Belgium	1,000	
Bank of Canada	2,000	
National Bank of Denmark	250	
Bank of England	3,000	
Bank of France	2,000	
Deutsche Bundesbank	6,000	
Bank of Italy	3,000	
Bank of Japan	5,000	
Bank of Mexico[1]	3,000	
Netherlands Bank	500	
Bank of Norway	250	
Bank of Sweden	300	
Swiss National Bank	4,000	
Bank for International Settlements		
Dollars against Swiss francs	600	
Dollars against other authorized European currencies	1,250	
Total	**32,400**	**0**
	U.S. Treasury Exchange Stabilization Fund Currency Arrangements	
Deutsche Bundesbank	1,000	0
Bank of Mexico[1]		
Regular swaps	3,000	0
United Mexican States[1]		
Medium-term swaps	. . .	3,500
Total[1]	. . .	**3,500**

1. Facilities available to Mexico comprise short-term swaps between the Bank of Mexico and both the Federal Reserve and the ESF, as well as medium-term swaps and government guarantees between the government of Mexico and the ESF. The total amount available from both medium-term swaps and government guarantees is $20 billion, less any outstanding drawings on the short-term facilities.

The Dollar's New 1996 High against the Mark

Against the mark, the dollar weakened slightly early in the period amid open debates over the terms of the economic stability pact, which dampened optimism about the EMU process, and a growing belief that Germany had reached the end of its easing cycle. At the same time, ebbing expectations of a tightening by the FOMC prompted a narrowing of long-term interest rate differentials and reduced a key element of support for the dollar. Meanwhile, the mark was also supported by heavy flows out of yen.

The dollar began a rapid appreciation midway through the period, however. In nine consecutive trading sessions between November 21 and December 4, the dollar strengthened from just below DM 1.50 to more than DM 1.56, with each closing rate exceeding that of the previous day. The dollar appreciation coincided with more favorable EMU sentiment after the Italian lira's re-entry to the European Exchange Rate Mechanism and after indications that a stability pact would be negotiated at the Dublin summit. In addition, the dollar benefited from a brief reconsideration of prospects for further easing in Germany and the perception that the monetary authorities of continental Europe would welcome further depreciation of their currencies.

In the first two weeks of December, equity, fixed income, and currency markets became more volatile as market participants closed out positions before year-end. Nevertheless, previously established themes, particularly with respect to expectations for continued Japanese capital outflows, dominated holiday-thinned currency trading, and the dollar continued to appreciate as the year-end approached.

Treasury and Federal Reserve Foreign Exchange Reserves

At the end of the quarter, the foreign currency reserve holdings of the Federal Reserve System and the

4. Drawings/rollovers and repayments (−) by Mexican monetary authorities, 1996:Q4

Millions of dollars

Currency arrangements with the U.S. Treasury Exchange Stabilization Fund	Outstanding, Sept. 30, 1996	Oct.	Nov.	Dec.	Outstanding, Dec. 31, 1996
Bank of Mexico					
Regular	0	0	0	0	0
Medium-term	3,500	0	0	0	3,500

Note. Data are on a value-date basis.

Exchange Stabilization Fund (ESF) were valued at $19.2 billion and $15.6 billion, respectively, and consisted of German marks and Japanese yen.

The U.S. monetary authorities invest all their foreign currency balances in a variety of instruments that yield market-related rates of return and have a high degree of liquidity and credit quality. A significant portion of these balances is invested in German and Japanese government securities held either directly or under repurchase agreement. As of December 31, outright holdings of government securities by U.S. monetary authorities totaled $7.7 billion.

Japanese and German government securities held under repurchase agreement are arranged either through transactions executed directly in the market or through agreements with official institutions. Government securities held under repurchase agreements by the U.S. monetary authorities totaled $10.5 billion at the end of the quarter. Foreign currency reserves are also invested in deposits at the Bank for International Settlements and in facilities at other official institutions. □