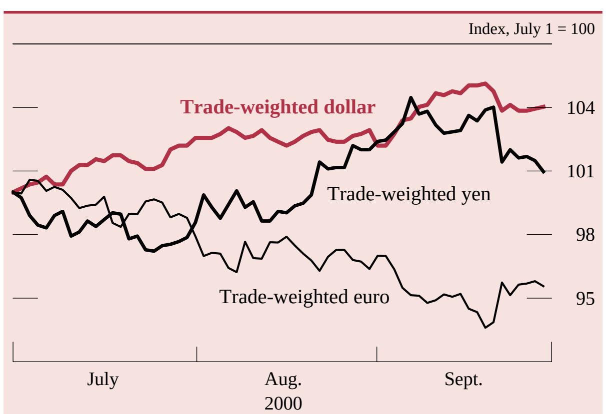
Treasury and Federal Reserve Foreign Exchange Operations

This report, presented by Peter R. Fisher, Executive Vice President, Federal Reserve Bank of New York, and Manager, System Open Market Account, describes the foreign exchange operations of the U.S. Department of the Treasury and the Federal Reserve System for the period from July 2000 through September 2000. Ryan Faulkner was primarily responsible for preparing the report.

During the third quarter, the dollar appreciated 8.2 percent against the euro and 2.0 percent against the yen. On a trade-weighted basis, the dollar ended the quarter 4.1 percent stronger against the currencies of the United States' major trading partners. In addition, the euro depreciated 5.5 percent against the yen over the course of the third quarter. The euro's value during the first half of the quarter was largely influenced by market expectations of a continued net outflow of capital from the euro area, especially related to merger and acquisition activity. During the first week of September, the euro's decline accelerated, prompted by reports of global portfolio reallocations, and contributed to a sharp increase in currency market volatility.

On September 22, the U.S. monetary authorities intervened in the foreign exchange markets, purchasing 1.5 billion euros against the dollar. The operation, which was divided evenly between the U.S. Treasury Department's Exchange Stabilization Fund and the Federal Reserve System, was coordinated with the European Central Bank (ECB) and the monetary authorities of Japan, Canada, and the United Kingdom.

1. Trade-weighted G-3 currencies, 2000:Q3



Note. In this and the charts that follow, the data are for business days except as noted.
Source. Bloomberg L.P.

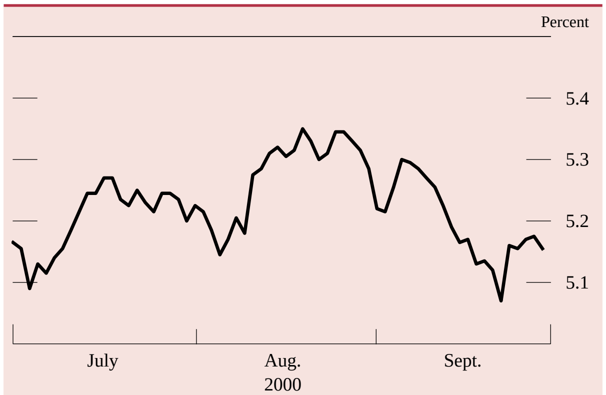
Currency Movements Dominated by Euro Weakness during the First Half of the Quarter

During the first half of the quarter, the euro weakened against the major currencies, having depreciated 4.3 percent against the dollar and 1.5 percent against the yen, and neared the lows reached in May 2000. The depreciation of the euro was widely attributed to market expectations of continued cross-border investment flows out of the euro area that were related to merger and acquisition announcements made in July and August. According to the ECB, the euro area had net outflows of direct investment and portfolio investment in July 2000 of €11.3 billion and €5.9 billion respectively.

The euro's depreciation during the first half of the quarter also coincided with uncertainty regarding the growth prospects for the euro area and the perceived risk that inflationary pressures were growing. In addition, weaker-than-expected German business confidence in June and purchasing manager surveys in July suggested to some market participants that the pace of growth in the euro area was moderating. However, higher-than-expected euro-area inflation for June and July solidified expectations that the ECB would tighten monetary policy, with the implied yield on the three-month December euribor futures contract having risen 18 basis points, to a yield of 5.31 percent during the first half of the quarter. Rising import prices and higher oil prices were cited as the main factors behind the jump in headline inflation.

In the United States, economic data releases during the first half of the quarter supported market expectations that the pace of U.S. economic growth was moderating. Among these data were the weaker-than-expected surveys for June and July from the National

2. Yield implied by the December euribor contract, 2000:Q3



SOURCE. Bloomberg L.P.

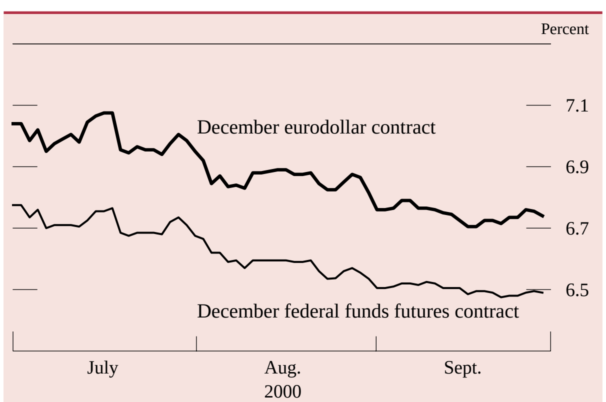
Association of Purchasing Managers, the Chicago Purchasing Managers Index survey for July, and construction spending for June. During the first half of the quarter, market participants reduced their expectations for additional tightening of U.S. monetary policy before year-end amid signs of subdued inflation. Over this period, the implied yield on the December federal funds futures contract declined 26 basis points, to 6.60 percent, and ended the quarter at 6.49 percent. Signs that growth could be moderating also led many market participants to lower U.S. earnings forecasts for the remainder of the year. U.S. equities were mixed during the first half of the quarter but then declined during the second half. On balance, the S&P 500 and the Nasdaq composite equity indexes fell 1.2 and 7.4 percent, respectively, during the third quarter.

Short-dated dollar–euro interest rate differentials narrowed during the first half of the quarter but remained in favor of the dollar. The spread of the two-year dollar swap rate over the two-year euro swap rate fell from 190 to 135 basis points during the quarter, extending the narrowing that began in early May when the spread was 245 basis points. The effect of narrowing interest rate differentials on the euro appeared to be overshadowed by the market's attention to potential capital flows out of the euro area.

Currency option prices during the first half of the quarter indicated that market anxiety remained relatively low. During July and August, implied volatilities for one-month options on the euro–dollar and euro–yen exchange rate pairs reached their lowest points of the year, averaging 11.2 and 13.4 percent, respectively, over these two months. In addition, prices of euro–dollar risk reversals indicated continued demand for protection against euro appreciation, with one-month euro calls being favored over one-month euro puts.

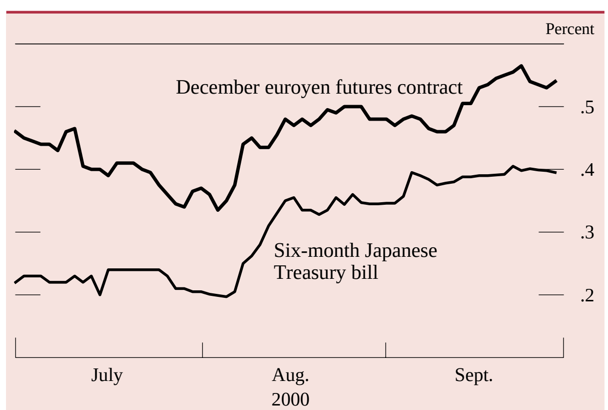
In comparison with the euro, the yen traded in a relatively narrow range against the dollar, between ¥105 and ¥110, in response to mixed evidence regarding Japanese economic conditions, strength in local equity markets, and speculation about the timing of an end to the Bank of Japan's near-zero interest rate policy. In July, the dollar was supported by diminishing expectations of a near-term increase in Japanese rates after the release of mixed economic data and several corporate bankruptcy announcements. Commentary from Bank of Japan officials and signs of improving economic conditions in August once again raised market expectations for an end to the near-zero interest rate policy. On August 11, the Bank of Japan raised its target for the overnight call rate to 0.25 percent. The reaction in the currency markets was relatively mild, and the yen weakened modestly against the dollar and euro amid specula-

3. Implied yields on U.S. interest rate futures contracts, 2000:Q3



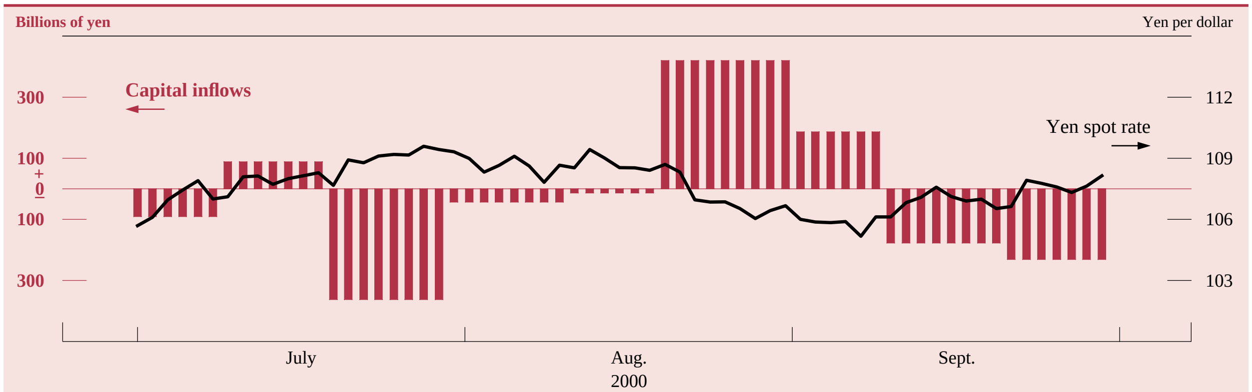
SOURCE. Bloomberg L.P.

4. Yields on short-term Japanese fixed-income securities, 2000:Q3



SOURCE. Bloomberg L.P.

5. Foreign inflows into Japanese equities and the dollar–yen spot exchange rate, 2000:Q3



NOTE. Capital inflows are weekly data.

SOURCE. Bloomberg L.P.

tion about the effect of higher rates on the Japanese economy.

During the second half of August, the yen strengthened 2.3 and 5.1 percent against the dollar and euro, respectively, amid gains in Japanese equities and signs of continued economic recovery. Although the consumer price index data released in August renewed deflationary concerns, other reports on economic activity, such as June data on machine orders, increased speculation that the Japanese economy continued to recover. The yen was also supported by investor interest in buying Japanese shares, coincident with a 4.4 percent rise in the Nikkei over the last two weeks of August. According to the Ministry of Finance, foreign investors bought ¥350 billion in Japanese stocks in August, marking the first time that they had been net purchasers of Japanese shares since March 2000.

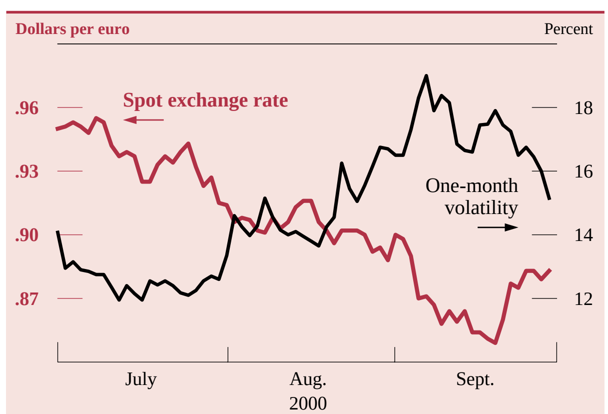
Sharp Rise of Currency Market Volatility in September

During the first two weeks of September, currency market volatility increased sharply in response to reported portfolio reallocations. In addition to expected outflows from the euro area, the repositioning of Japanese firms in anticipation of the September 30 fiscal-half year-end appeared to have been a major factor behind the sharp currency fluctuations. The depreciation of the euro reportedly prompted Japanese institutional investors who had acquired euro assets at higher exchange rates to sell euros against the yen to hedge or liquidate euro-denominated debt holdings. As investors scaled back their positions, movements in the currency market were exacerbated. In the week after the ECB's decision to raise its main policy rate 25 basis points, to 4.5 percent on August 31, the euro depreciated 2.8 percent against the yen and 1.9 percent against the dollar.

Market nervousness over additional bouts of volatility increased as the euro reached new historic lows against the major currencies, raising market perceptions of the possibility of official intervention in support of the euro. Implied volatility for one-month options on the euro–yen exchange pair jumped 1.5 percentage points in the first week of September, to 18.2 percent, its highest level since April 2000. Implied volatility for options on the euro–dollar exchange pair also increased, with the one-month tenor reaching 14.4 percent on September 8.

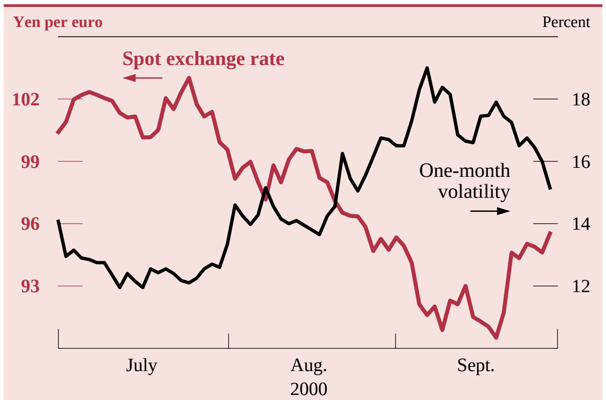
Pressure on other currencies and capital markets also emerged, reflecting a decline in investor risk appetite. In addition to the Japanese repatriation flows, higher oil prices and signs of slower global growth also contributed to uncertainty in the currency markets, as speculation rose about the effect that higher oil prices would have on countries' monetary

6. The euro against the dollar: spot exchange rate and option implied volatility, 2000:Q3



SOURCE. Bloomberg L.P.

7. The euro against the yen: spot exchange rate and option implied volatility, 2000:Q3



SOURCE. Bloomberg L.P.

policies and the ability of some countries to attract international capital. Among the currencies affected were the New Zealand dollar, the Australian dollar, the South African rand, and the Brazilian *real*, which depreciated 13.1, 9.1, 6.3, and 2.0 percent, respectively, against the U.S. dollar over the quarter.

Coordinated Intervention to Purchase Euros in the Market

On September 22, the Federal Reserve Bank of New York (FRBNY) entered the market to purchase euros against dollars for the U.S. monetary authorities in a coordinated intervention operation initiated by the ECB. The Japanese, British, and Canadian monetary authorities also participated in the intervention, purchasing euros with their currencies.

The operation began at 7:11 a.m., with the euro trading at 0.8750 against the dollar, 2.0 percent higher than the closing price the previous day, and at 93.20 against the yen, 1.6 percent higher than the previous day's close. The FRBNY Trading Desk operated intermittently until 9:20 a.m. Over the course of the morning, the U.S. monetary authorities acquired €1.5 billion against $1.34 billion. The total amount was evenly divided between the U.S. Treasury Department's Exchange Stabilization Fund and the Federal Reserve System.

As the operation began, the U.S. Department of the Treasury issued the following statement: "At the initiative of the European Central Bank, the monetary authorities of the United States and Japan joined with the European Central Bank in concerted intervention in exchange markets, because of their shared concern about the potential implications of recent movements in the Euro for the world economy."

Treasury Secretary Lawrence H. Summers repeated this statement later that morning during a previously scheduled press conference before the September 23 Group of Seven (G-7) meeting and noted that "British and Canadian authorities also took part in the operation, purchasing euros with their currencies." Secretary Summers also said that "Our policy on the dollar is unchanged. As I have said many times, a strong dollar is in the national interest of the United States."

The euro rose as high as 0.9014 against the dollar and 96.17 against the yen before consolidating its gains just above $0.88 and ¥94.60. From Thursday's to Friday's close, the euro appreciated 2.4 and 3.2 percent against the dollar and yen respectively. Against the Canadian dollar and British pound, the euro rose 2.1 and 0.9 percent, respectively, over the same period. Although the dollar declined 2.3 percent against the euro from Thursday's to Friday's close, it appreciated by 1.3 percent against the yen over the same period.

In the days after the intervention, the euro traded in a narrow range against the yen and the dollar. For the remainder of the third quarter, the euro–dollar and euro–yen exchange pairs traded in a 0.7 and 1.0 percent range respectively. The implied volatility of one-month euro–dollar options also declined, falling from 16.2 percent on September 22 to 13.4 percent at the quarter's close. Over the same period, the implied volatility of one-month euro–yen options declined from 16.9 to 14.9 percent.

Treasury and Federal Reserve Foreign Exchange Reserves

At the end of the quarter, the current values of the euro and Japanese yen reserve holdings totaled $15.7 billion for the Federal Reserve System and $15.7 billion for the Treasury's Exchange Stabilization Fund. The U.S. monetary authorities invest all of 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. To the extent practicable, the investments are split evenly between the Federal Reserve System and the Exchange Stabilization Fund.

A significant portion of the balances is invested in German and Japanese government securities held directly or under repurchase agreement. Government securities held under repurchase agreement are arranged either through transactions executed directly in the market or through agreements with official institutions. Foreign currency reserves are also invested in deposits at the Bank for International Settlements and in facilities at other official institutions. As of September 29, direct holdings of foreign government securities totaled $8.5 billion, split evenly between the two authorities. Foreign government securities held under repurchase agreement totaled $9.3 billion at the end of the quarter and were also split evenly between the two authorities.

1. Foreign currency holdings of U.S. monetary authorities based on current exchange rates, 2000:Q3

Millions of dollars

Item	Balance, June 30, 2000	Quarterly changes in balances, by source					Balance, Sept. 29, 2000
		Net purchases and sales[1]	Effect of sales[2]	Investment income	Currency valuation adjustments[3]	Interest accrual and other[4]	
FEDERAL RESERVE SYSTEM OPEN MARKET ACCOUNT (SOMA)							
Euro	6,637.5	669.7	0.0	66.2	–501.3	. . .	6,872.1
Japanese yen	8,877.9	0.0	0.0	0.7	–144.8	. . .	8,733.7
Total	15,515.3	669.7	0.0	66.9	–646.1	. . .	15,605.8
Interest receivables (net)[5]	34.5	. . .	. . .	. . .	. . .	32.3	66.8
Other cash flow from investments[4]	4.6	. . .	. . .	. . .	. . .	4.6	0.0
Total	**15,554.4**	**669.7**	**0.0**	66.9	**–646.1**	**27.7**	**15,672.6**
U.S. TREASURY EXCHANGE STABILIZATION FUND (ESF)							
Euro	6,634.7	669.7	0.0	66.2	–501.1	. . .	6,869.5
Japanese yen	8,877.8	0.0	0.0	0.7	–144.8	. . .	8,733.8
Total	15,512.5	669.7	0.0	66.9	–645.9	. . .	15,603.2
Interest receivables[5]	56.4	. . .	. . .	. . .	. . .	1.2	57.6
Other cash flow from investments[4]	4.7	. . .	. . .	. . .	. . .	–4.7	0.0
Total	**15,573.6**	**669.7**	**0.0**	**66.9**	**–645.9**	**–3.5**	**15,660.8**

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

1. Purchases and sales for the purpose of this table include foreign currency sales and purchases related to official activity, swap drawings and repayments, and warehousing.

2. This figure is calculated using marked-to-market exchange rates; it 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 historical cost-of-acquisition exchange rate and the sale exchange rate, are reflected in table 2.

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

4. Values are cash flow differences from payments and collection of funds between quarters.

5. 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.

. . . Not applicable.

2. Net profits or losses (–) on U.S. Treasury and Federal Reserve foreign exchange operations, based on historical cost-of-acquisition exchange rates, 2000:Q3

Millions of dollars

Period and item	Federal Reserve System Open Market Account	U.S. Treasury Exchange Stabilization Fund
Valuation profits and losses on outstanding assets and liabilities, June 30, 2000		
Euro	–869.6	–1,086.3
Japanese yen	1,832.3	2,044.4
Total	**962.7**	**958.2**
Realized profits and losses from foreign currency sales, June 30, 2000–Sept. 29, 2000		
Euro	0.0	0.0
Japanese yen	0.0	0.0
Total	**0.0**	**0.0**
Valuation profits and losses on outstanding assets and liabilities, Sept. 29, 2000		
Euro	–1,370.9	–1,587.3
Japanese yen	1,687.5	1,899.7
Total	**316.6**	**312.3**

3. Reciprocal currency arrangements, September 29, 2000

Millions of dollars

Institution	Amount of facility	Outstanding, Sept. 29, 2000
	Reciprocal currency arrangements	
Bank of Canada	2,000	0.0
Bank of Mexico	3,000	0.0
Total	**5,000**	**0.0**
	Federal Reserve and U.S. Treasury Exchange Stabilization Fund currency arrangements	
Bank of Mexico	3,000	0.0
Total	**3,000**	**0.0**