

TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

July–September 1999

During the third quarter of 1999, the dollar depreciated 12.1 percent against the yen and 3.2 percent against the euro. Dollar movements mainly reflected prospects for more balanced global growth, particularly among the major economies. The yen's substantial appreciation during the quarter against both the dollar and the euro was accompanied by sizable portfolio flows as international investors reassessed views of expected risk-adjusted returns in global capital markets. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

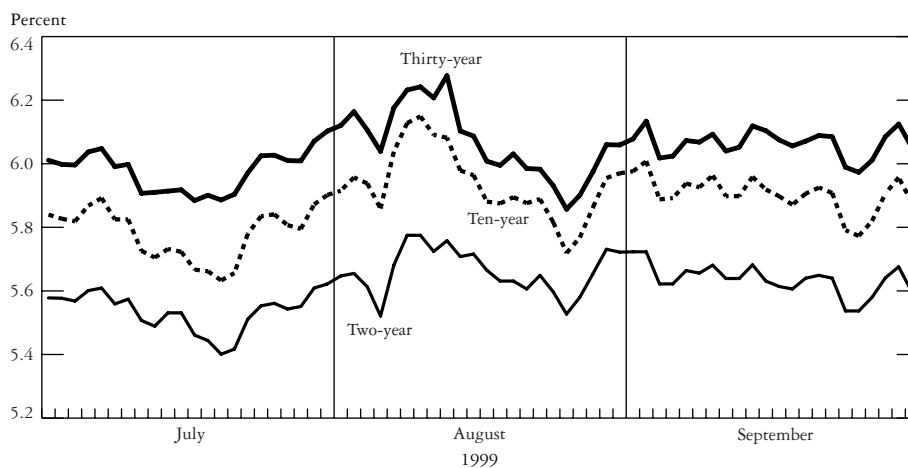
GLOBAL ECONOMIC GROWTH OUTLOOK IMPROVES

The U.S. economy continued to show buoyant activity in the third quarter, although its pace of growth appeared to slow. Expectations for aggressive monetary policy tightening in the United States waned in the initial weeks of the quarter after the Federal Open Market Committee (FOMC) raised the Federal funds target rate from 4.75 to 5.00 percent and adopted a neutral policy stance on June 30. Many market participants posited that benign price data and forecasts of slower growth made further near-term policy changes less likely. Nevertheless, yields on U.S. Treasuries rose to fifteen-month highs after Chairman Greenspan warned in his July 22 Humphrey-Hawkins testimony that the FOMC would act "promptly and forcefully" should inflationary pressures emerge. Rising commodity prices, particularly for oil, also raised some concerns about the outlook for inflation. The subsequent release of

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 1999 through September 1999. Deborah L. Leonard was primarily responsible for preparation of the report.

lower-than-expected second-quarter GDP growth of 2.3 percent on July 29 and subdued consumer and producer price reports shortly after that supported the view that further tightening might not be imminent, even though labor markets remained taut and the manufacturing sector strong. The FOMC raised the Fed funds target rate 25 basis points to 5.25 percent on August 24, with an accompanying statement that the two recent rate increases should “markedly diminish the risk of rising inflation going forward.” A weaker-than-expected report on non-farm payrolls on September 3 and moderate consumer price data on September 15 bolstered this sentiment.

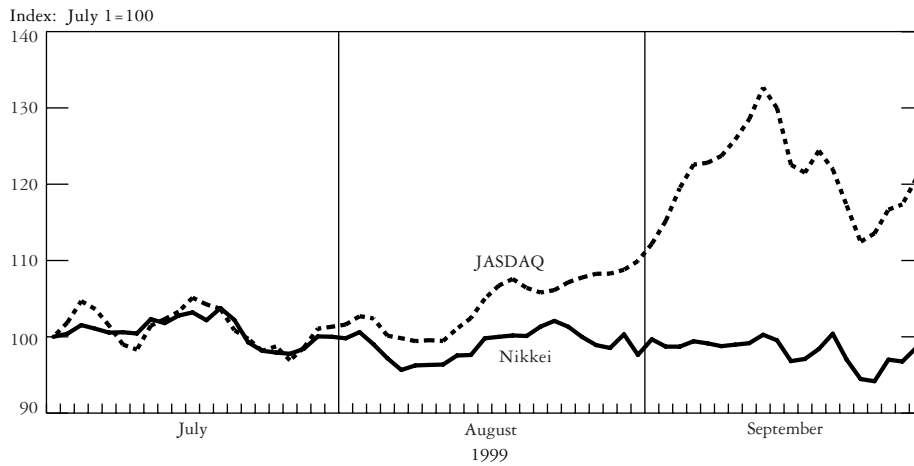
Chart 1
U.S. TREASURY YIELDS



Source: Bloomberg L.P.

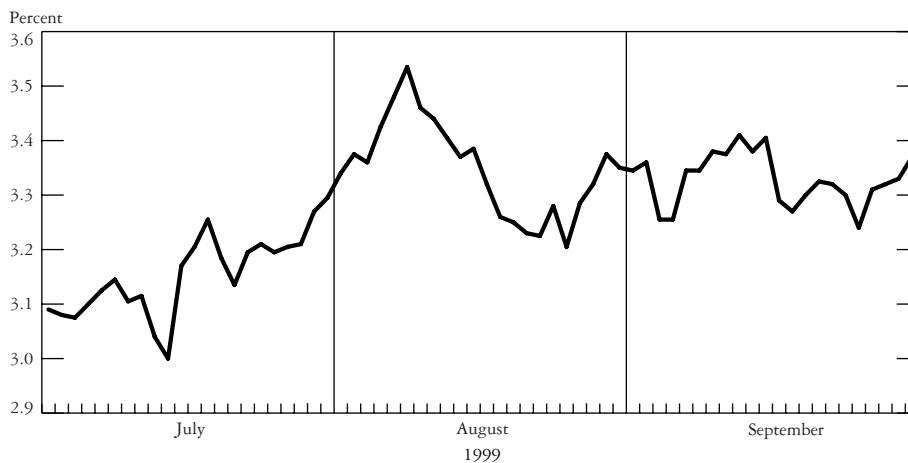
Signs of ongoing economic stabilization in Japan were reflected in data releases throughout the third quarter. Strong industrial production figures released on July 29, showing a 3.0 percent rise in output for June, were followed on August 13 by a slight upward revision to the already surprisingly strong reading for first-quarter GDP growth, from 1.9 percent to 2.0 percent over the fourth quarter of 1998. Second-quarter GDP data released on September 9 also surprised on the upside, showing growth of 0.2 percent compared with market expectations for a contraction of 0.3 percent. Several market participants cited gains in Japanese equities as a reflection of growing confidence in Japan’s recovery, as the small-capitalization JASDAQ index soared 26 percent during the quarter; however, the Nikkei index traded in a narrower range amid the uncertain impact of a stronger yen on large-capitalization exporter shares.

Chart 2
JAPANESE EQUITY PRICES



Improving economic indicators across Europe provided mounting evidence of a cyclical recovery in the euro area. Throughout the quarter, many private and multilateral institutions upwardly revised their forecasts of economic growth. Data releases early in the quarter were inconclusive, but a marked improvement in German and French business sentiment surveys and manufacturing orders later in the

Chart 3
IMPLIED YIELD ON MARCH 2000 EURIBOR FUTURES CONTRACT

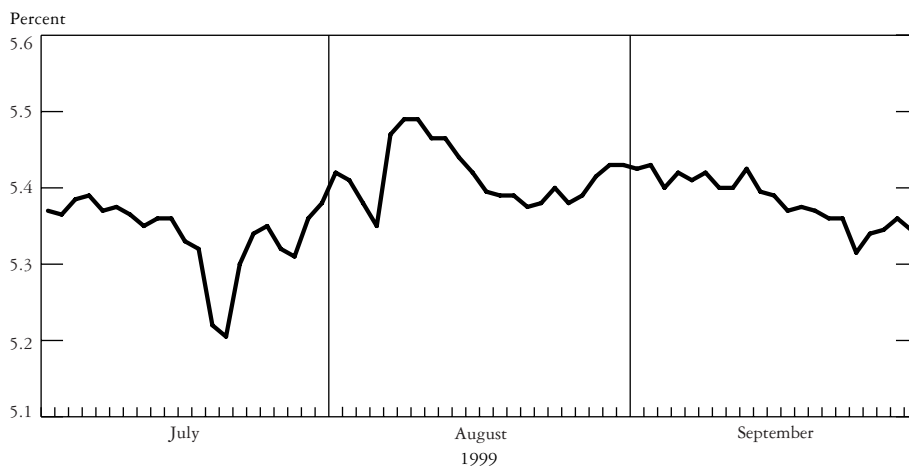


period led to growing expectations for an upswing in industrial activity across Europe. On July 15, European Central Bank (ECB) President Duisenberg suggested that a “[tightening] bias was gradually creeping” into the ECB’s policy considerations. Toward the end of the quarter, expectations for a near-term tightening solidified as producer prices rose across Europe, surveys of purchasing managers indicated higher prices paid for inputs, and senior ECB officials highlighted the risks of inflation in their public comments.

EXPECTATIONS FOR MONETARY POLICY ACTIONS SHIFT

Fundamental economic developments and comments from public officials in the United States, Japan, and Europe contributed to changing expectations for monetary policy actions throughout the quarter. In the United States, the FOMC’s choice of a symmetric policy outlook following tightenings on June 30 and August 24 encouraged market participants to carefully evaluate new information for potential signs of near-term policy direction. The implied yield on the December Fed funds futures contract fell 16 basis points early in the quarter, as market participants responded to the neutral bias, and then rose 28 basis points following Chairman Greenspan’s Humphrey-Hawkins testimony. However, the implied yield then fell 14 basis points from its period high of 5.49 percent, to end the quarter relatively unchanged. In Europe, forecasts of stronger growth, rising inflation, and comments from ECB officials contributed to the view that the balance of risks implied a tightening of European monetary policy sooner rather than later.

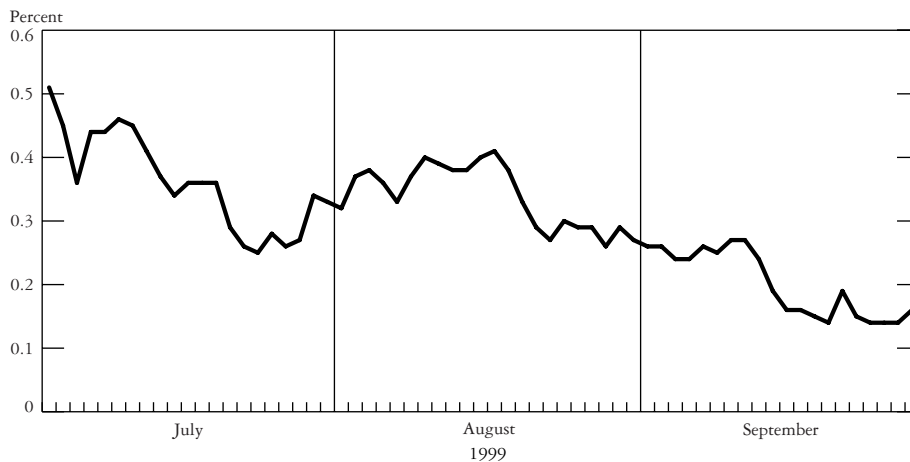
Chart 4
IMPLIED YIELD ON DECEMBER 1999 FED FUNDS FUTURES CONTRACT



Source: Bloomberg L.P.

In Japan, the yield on the ten-year benchmark Japanese government bond rose as high as 2.00 percent; stronger economic data and Bank of Japan (BoJ) Governor Hayami's June 30 testimony that Japan's zero interest rate policy was "extraordinary" led some market participants to expect that the BoJ might abandon its loose monetary policy sooner than previously expected. Ongoing discussion about additional fiscal stimulus measures further weighed on bond prices. However, the implied yield on the December euroyen futures contract fell steadily, from 0.54 percent to 0.18 percent, amid subsequent reassurances that the current zero interest rate policy would remain intact until signs of deflation had dissipated. In addition, the yen's persistent strength and domestic and international political pressures directed attention to the possibility that the BoJ would provide further monetary stimulus to the economy.

Chart 5
IMPLIED YIELD ON MARCH 2000 EUROYEN FUTURES CONTRACT



Source: Bloomberg L.P.

Throughout September, market discussion focused on calls by some observers in Japan and in the markets for the BoJ to adopt "quantitative easing" measures, including unsterilized intervention, in order to invigorate Japan's economy. The decision by the BoJ's Policy Board to maintain its zero interest rate policy at its September 21 meeting was accompanied by a statement emphasizing the central bank's belief that it already was supplying ample liquidity to the money market. The BoJ further stated that the "foreign exchange rate in itself is not a direct objective of monetary policy," but also that the Bank "considers it is important to carefully monitor the development of the foreign exchange rate from the viewpoint of how it affects the economy and prices." Market participants perceived a greater

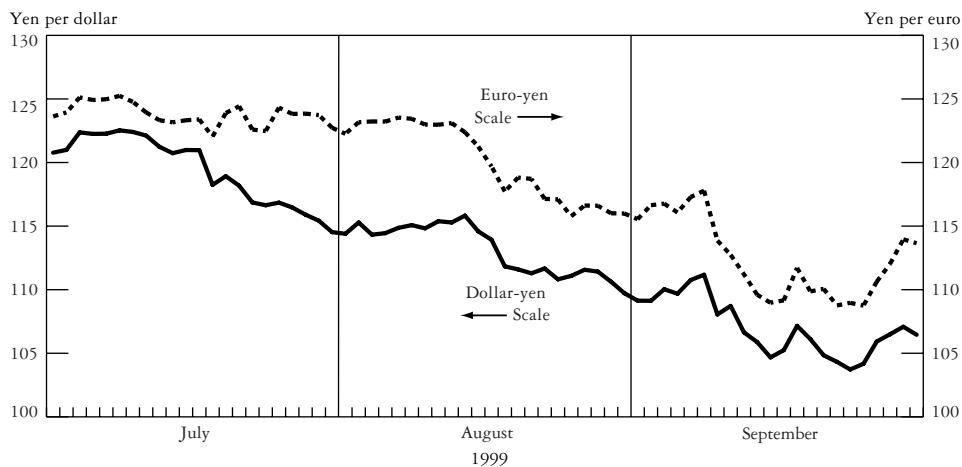
willingness by the BoJ to consider additional stimulus measures following the September 25 meeting of Group of Seven finance ministers and central bank heads, who expressed shared concern with Japan about the potential impact of the yen's appreciation. After the meeting, BoJ Governor Hayami issued a statement that the Bank shared the Japanese government's concern about yen appreciation; that the Bank was prepared to respond to developments in the economy as well the financial markets, including the foreign exchange market; and that the Bank was exploring ways to assure the further permeation of liquidity in Japan.

PORTFOLIO FLOWS DOMINATE CURRENCY MOVEMENTS

A reassessment of economic fundamentals and changing policy expectations among the G-3 also were reflected in portfolio flows during the quarter, particularly with respect to the yen. The yen steadily appreciated to a three-and-a-half-year low of ¥103.72 against the dollar and an all-time low of ¥108.70 against the euro on September 23 and 24, respectively. Shifts in portfolio flows in favor of Japanese assets took place as Japanese and foreign investors reevaluated their perceived risk-adjusted returns on capital in global markets.

For Japanese investors, the yen's rise substantially reduced the value of unhedged foreign assets. In yen terms, the price return on an index of euro-denominated sovereign bonds, which already had fallen 11 percent from the beginning of 1999 to July 1, fell as much as 24 percent toward the end of September. Year-to-date, yen-adjusted price returns on an index of U.S. Treasury notes and bonds had

Chart 6
THE DOLLAR AND EURO AGAINST THE JAPANESE YEN

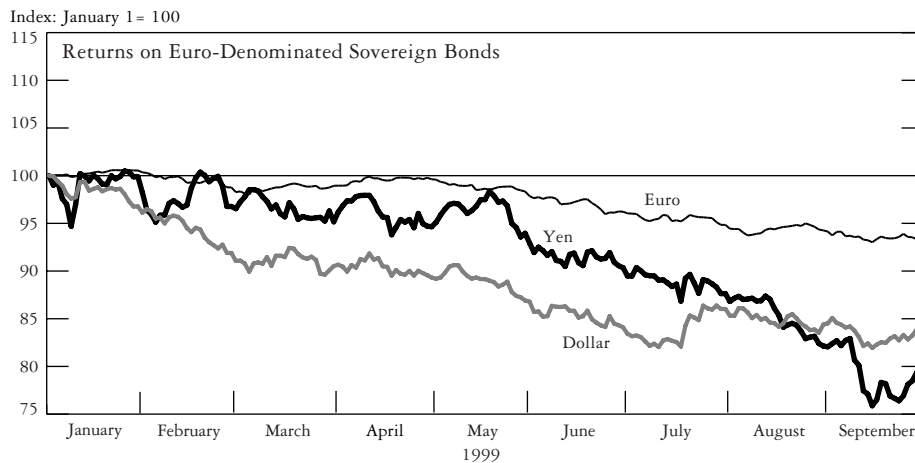
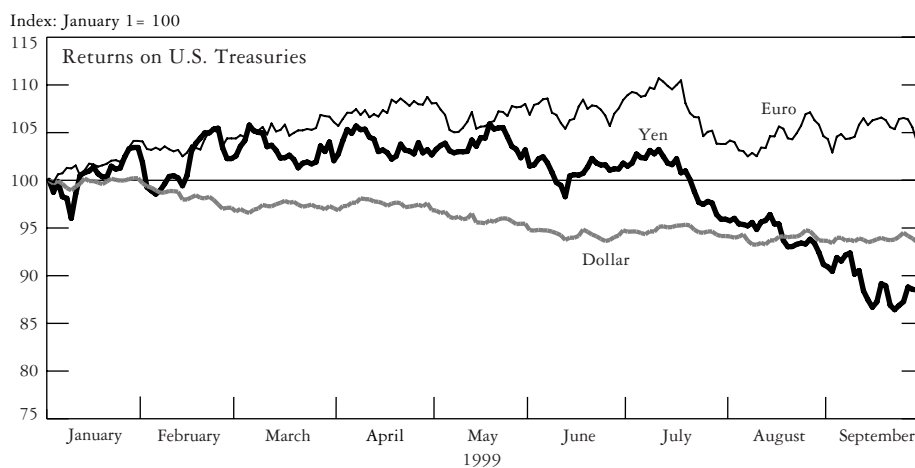


Source: Bloomberg L.P.

gained 3 percent as the third quarter began, but fell 12 percent by September 30. While the U.S. S&P500 equity index declined 6.6 percent in the third quarter, it fell approximately 18 percent in yen terms. Such losses reportedly encouraged Japanese investors to hedge or liquidate overseas positions ahead of Japan's September 30 fiscal half-year-end book closings, accelerating the yen's rise. Improved Japanese growth prospects also encouraged international investors to increase the share of Japanese equities in their portfolios. Such portfolio shifts were further encouraged by concerns over growing external imbalances, persistent questions over valuation levels for U.S. stocks, and prospects for higher interest rates in the United States and Europe.

Chart 7

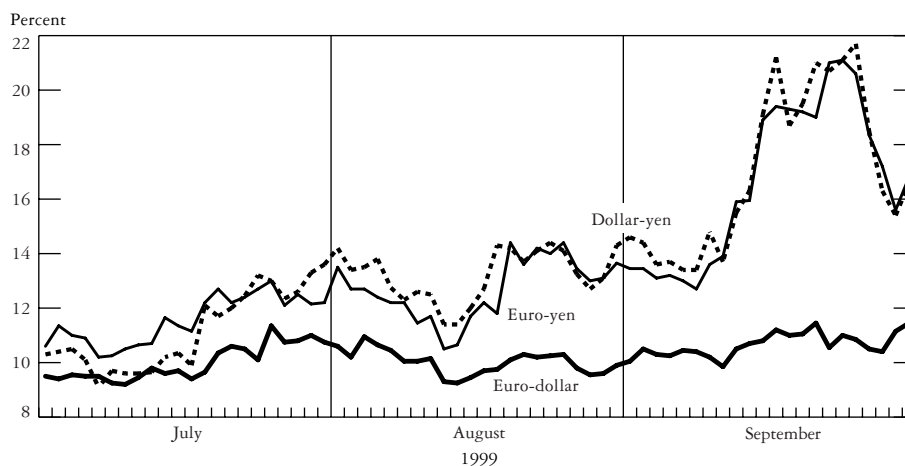
CURRENCY-ADJUSTED PRICE RETURNS ON U.S. AND EUROPEAN GOVERNMENT BOND INDEXES



Source: Merrill Lynch.

On several occasions during the quarter, Japanese Ministry of Finance officials publicly stated that the BoJ intervened in the foreign exchange markets, buying dollars and selling yen. While Japanese officials repeatedly expressed concern over a “premature” strengthening of the yen before economic recovery had been firmly established, some market participants noted that the interventions appeared to attempt to smooth the rate of the yen’s appreciation rather than to roll it back. Nevertheless, uncertainty regarding Japanese foreign exchange policy objectives contributed to a sharp rise in market volatility. In the options market, one-month implied volatility for the dollar-yen exchange rate soared from around 10 percent to as high as 22 percent toward the end of the quarter, reflecting greater uncertainty among market participants about the yen’s trading range.

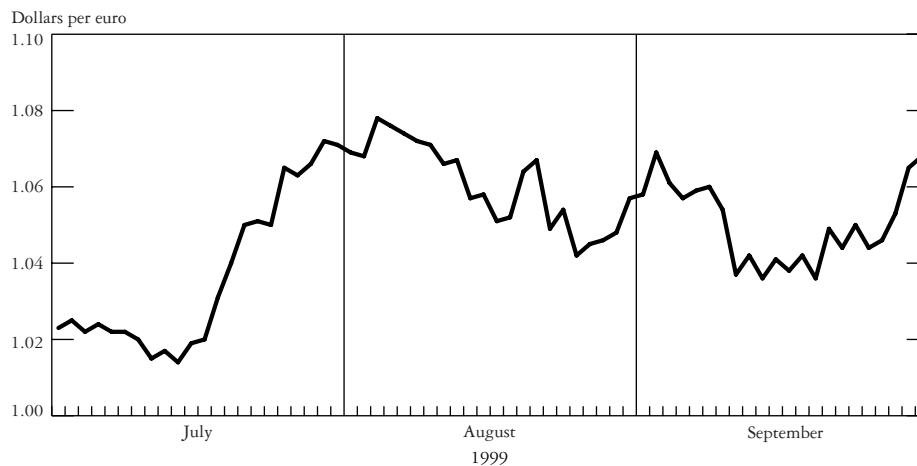
Chart 8
VOLATILITY IMPLIED BY ONE-MONTH OPTION PRICES



Source: Reuters.

Movements in the euro’s value against the yen were also largely influenced by portfolio flows, as Japanese investors hedged or reduced their exposure to euro-denominated assets. In contrast to the dollar’s steady decline against the yen, movements in the dollar-euro exchange rate reflected changing expectations regarding relative economic growth and interest rate prospects in the United States and Europe. After trading to a low of \$1.0136 early in the quarter, the euro rebounded sharply in July in response to the rising momentum of European growth, President Duisenberg’s intimation that a tightening bias was “creeping” into ECB policy considerations, and increased expectations of higher interest rates in Europe.

Chart 9
THE EURO AGAINST THE DOLLAR

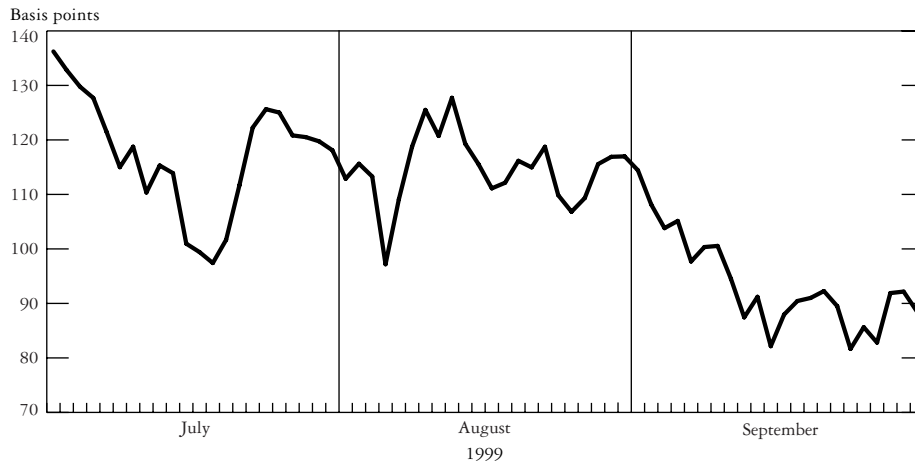


Source: Bloomberg L.P.

The euro reversed some of its gains after benign U.S. price data supported a short-lived rally in U.S. asset markets in August, but subsequently rose in response to European price and manufacturing data, which was interpreted as increasing the possibility of near-term interest rate hikes. The euro again pared its gains at the beginning of September, when U.S. producer price and employment data made additional interest rate increases in the U.S. appear less imminent, and after Germany's ruling Social Democratic Party suffered widespread losses in regional elections. However, the European currency again rose at the end of the quarter, after strong U.S. retail sales and trade data showing a rising deficit weighed heavily on U.S. equity markets. More generally, the euro's appreciation against the dollar this quarter reflected the broader trend of narrowing U.S. and European yield spreads. Euro-area sovereign bonds underperformed U.S. Treasuries, with the spread between ten-year U.S. and German government bond yields narrowing by 46 basis points over the quarter and reaching a low of 82 basis points on September 23, its lowest level since January.

Chart 10

SPREAD BETWEEN TEN-YEAR U.S. TREASURY AND GERMAN
GOVERNMENT BOND YIELDS



Source: Bloomberg L.P.

TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

The U.S. monetary authorities did not undertake any intervention operations during the quarter. At the end of the quarter, the current values of euro and Japanese yen reserve holdings totaled \$16.1 billion for the Federal Reserve System and \$16.1 billion for the Exchange Stabilization Fund.¹ 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 greatest extent practicable, these investments are split evenly between the Federal Reserve System and the Exchange Stabilization Fund.

A 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 30, direct holdings of foreign government securities totaled \$9.1 billion, split evenly between the two authorities. Foreign government securities held under repurchase agreement totaled \$13.2 billion at the end of the quarter and were also split evenly between the two authorities.

¹Amounts are based on carrying value and September 30 exchange rates.

Table 1

**FOREIGN CURRENCY HOLDINGS OF U.S. MONETARY AUTHORITIES
BASED ON CURRENT EXCHANGE RATES**

Millions of Dollars

	Quarterly Change in Balance by Source						Balance as of September 30, 1999
	Balance as of June 30, 1999	Net Purchases and Sales ^a	Impact of Sales ^b	Investment Income	Currency Valuation Adjustments ^c	Interest Accrual (Net) and Other	
System Open Market Account (SOMA)							
EMU euro	6,943.7	0.0	0.0	53.0	225.1	0.0	7,221.8
Japanese yen	<u>7,786.9</u>	<u>0.0</u>	<u>0.0</u>	<u>2.0</u>	<u>1,043.0</u>	<u>0.0</u>	<u>8,831.9</u>
Subtotal	14,730.6	0.0	0.0	55.0	1,268.1	0.0	16,053.7
Interest receivables ^d	68.4	0.0	0.0	0.0	0.0	(17.3)	51.1
Other cash flow from investments ^e	0.0	0.0	0.0	0.0	0.0	13.4	13.4
Total	<u><u>14,799.0</u></u>	<u><u>0.0</u></u>	<u><u>0.0</u></u>	<u><u>55.0</u></u>	<u><u>1,268.1</u></u>	<u><u>(3.9)</u></u>	<u><u>16,118.2</u></u>
U.S. Treasury Exchange Stabilization Fund (ESF)							
EMU euro	6,944.6	0.0	0.0	49.3	225.2	0.0	7,219.1
Japanese yen	<u>7,787.0</u>	<u>0.0</u>	<u>0.0</u>	<u>2.0</u>	<u>1,042.8</u>	<u>0.0</u>	<u>8,831.8</u>
Subtotal	14,731.6	0.0	0.0	51.3	1,268.0	0.0	16,050.9
Interest receivables ^d	45.5	0.0	0.0	0.0	0.0	20.7	66.2
Other cash flow from investments ^e	0.0	0.0	0.0	0.0	0.0	13.3	13.3
Total	<u><u>14,777.1</u></u>	<u><u>0.0</u></u>	<u><u>0.0</u></u>	<u><u>51.3</u></u>	<u><u>1,268.0</u></u>	<u><u>34.0</u></u>	<u><u>16,130.4</u></u>

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

^a 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.

^b 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 historic cost-of-acquisition exchange rate and the sale exchange rate, are reflected in Table 2.

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

^d 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. Interest receivables for the Federal Reserve System are net of unearned interest collected.

^e Values are cash flow differences from payment and collection of funds between quarters.

Table 2

NET PROFITS (+) OR LOSSES (-) ON U.S. TREASURY AND FEDERAL
RESERVE FOREIGN EXCHANGE OPERATIONS BASED ON
HISTORIC COST-OF-ACQUISITION EXCHANGE RATES

Millions of Dollars

	SOMA	ESF
Valuation profits and losses on outstanding assets and liabilities as of June 30, 1999		
EMU euro	(345.0)	(562.0)
Japanese yen	746.3	958.5
Total	<u>401.3</u>	<u>396.5</u>
Realized profits and losses from foreign currency sales		
June 30, 1999 – September 30, 1999		
EMU euro	0.0	0.0
Japanese yen	0.0	0.0
Total	<u>0.0</u>	<u>0.0</u>
Valuation profits and losses on outstanding assets and liabilities as of September 30, 1999		
EMU euro	(119.9)	(336.9)
Japanese yen	1,775.8	1,988.0
Total	<u>1,655.9</u>	<u>1,651.1</u>

Table 3

FEDERAL RESERVE RECIPROCAL CURRENCY ARRANGEMENTS

Millions of Dollars

Institution	Amount of Facility	Outstanding as of September 30, 1999
Bank of Canada	2,000	0.0
Bank of Mexico	3,000	0.0
Total	<u>5,000</u>	<u>0.0</u>

U.S. TREASURY EXCHANGE STABILIZATION FUND CURRENCY
ARRANGEMENTS

Millions of Dollars

Institution	Amount of Facility	Outstanding as of September 30, 1999
Bank of Mexico	3,000	0.0
Total	<u>3,000</u>	<u>0.0</u>