Appendices

Appendix A

Statement of cash flows for the ESF for FY1997 and FY1998

Years ended 30 September (in thousands)	1997	1998
Cash flows from operating activities:		
Interest received on US government securities	770,090	864,427
Interest received on foreign currency-denominated assets	257,178	183,252
Interest received on investment securities	39,462	36,229
Unrealized loss on valuation of foreign currency-denominated assets	(1,607,521)	(647,776)
Other	(13,116)	-
Net cash provided by (used in) operating activities	(553,907)	436,132
Cash flows from investing activities:		
Net decrease in foreign currency-denominated assets	3,774,902	4,786
Net increase in investment securities	(515,545)	(68,840)
Purchases of Special Drawing Rights received as remuneration by the US Treasury and related interest	(440,834)	(594,129)
Sales of Special Drawing Rights	214,892	666,522
Net cash provided by investing activities	3,033,415	8,339
Cash flows from financing activities:		
Certificates redeemed from Federal Reserve banks	(518,000)	-
Due to Treasury		620
Net cash provided by (used in) financing activities	(518,000)	620
Net increase in cash and cash equivalents	1,961,508	445,091
Cash and cash equivalents at beginning of year	22,284,696	24,246,204
Cash and cash equivalents at end of year	24,246,204	24,691,295
Reconciliation of net income (loss) to net cash provided by operating activities		
Net income (loss)	(583,955)	600,148
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
(Increase) decrease in Special Drawing Right holdings due to valuation	406,110	(180,261)
(Increase) decrease in accrued interest receivable	341	(14,464)
Increase (decrease) in Special Drawing Right allocations due to valuation	(363,364)	29,939
Increase in accrued expenses	77	770
Decrease in unearned income and advances	(13,116)	-
Total adjustments	30,048	(164,016)
Net cash provided by (used in) operating activities	(553,907)	436,132

Source: US Treasury Department, *Audited Fiscal Years 1997 and 1998 Financial Statements of the Exchange Stabilization Fund* (29 March 1999).

Appendix B
Treasury and Federal Reserve Foreign Exchange Operations

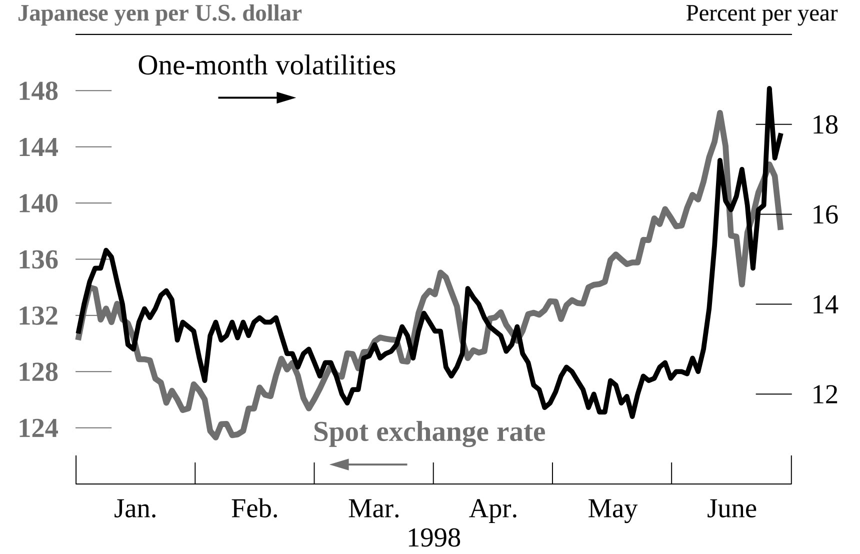
This quarterly report describes U.S. Treasury and System foreign exchange operations for the period from April through June 1998. It was presented by Peter R. Fisher, Executive Vice President, Federal Reserve Bank of New York, and Manager, System Open Market Account. Daniel Osborne was primarily responsible for preparation of the report.

Throughout the second quarter of 1998, the Japanese yen weakened consistently, depreciating 4.1 percent against the U.S. dollar and 6.2 percent against the German mark. Continued pessimism about the outlook for the Japanese economy pressured the yen to eight-year lows against the dollar. This pessimism contrasted with the relatively positive outlooks for the United States and Europe, with the dollar benefiting from continued low inflation and a strong domestic economy while the mark benefited from optimism toward the European Monetary Union (EMU). During the first two weeks of June, the yen's decline accelerated, putting downward pressure on other regional currencies as market participants increasingly doubted that effective reforms of the Japanese banking system and stimulus of the economy would be forthcoming.

On June 17 the U.S. monetary authorities intervened in the foreign exchange markets, selling a total of $833 million against the Japanese yen. The operation, which was divided evenly between the U.S. Treasury Department's Exchange Stabilization Fund and the Federal Reserve System, was conducted in cooperation with the Japanese monetary authorities.

Note: As published in *Federal Reserve Bulletin*, September 1998.

Figure 1 Spot exchange rate of the dollar against the Japanese yen and option-implied volatility, 1998: H1



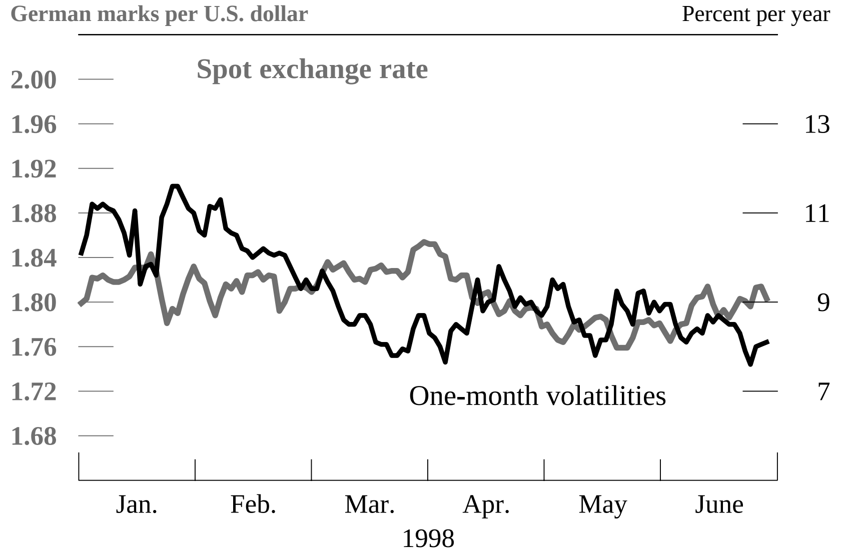
Source: Federal Reserve Bank of New York; Reuters.

SUPPORT FOR U.S. ASSETS FROM SIGNS OF MODERATION IN THE DOMESTIC ECONOMY AND EXPECTATIONS OF STEADY MONETARY POLICY

U.S. economic data during the second quarter continued to show strong economic activity and low inflation, although increasing signs of slower growth appeared as the period progressed. This environment supported expectations of a steady near-term interest rate policy, although at times this sentiment fluctuated. In April U.S. treasuries traded in a volatile manner, with the benchmark thirty-year bond yield rising above 6.00 percent after the April 27 publication of a press release reporting that at its March meeting, the Federal Open Market Committee (FOMC) had shifted toward a tightening bias. The benchmark bond yield subsequently traded back below 6.00 percent after the April 30 release of the employment cost index, which was interpreted as suggesting lower-than-expected labor cost growth for the first quarter.

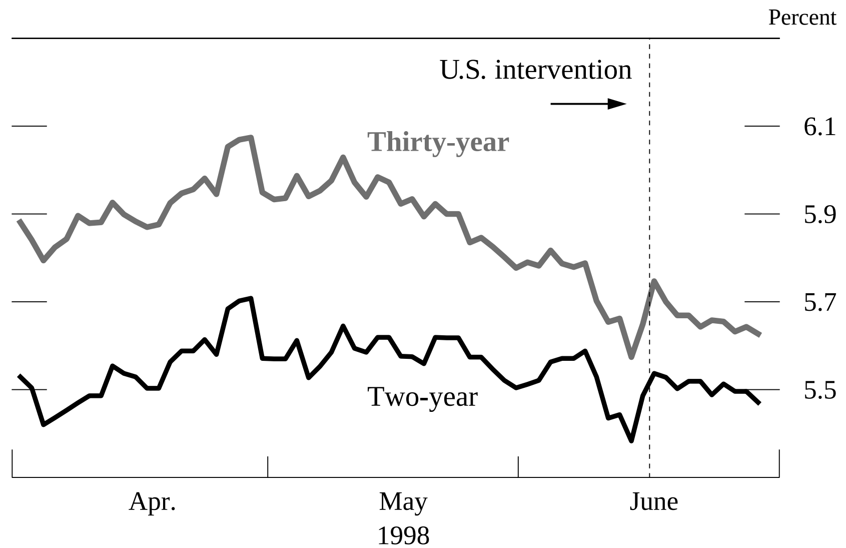
This outlook of low inflation and moderating growth appeared to be supported by Federal Reserve Chairman Alan Greenspan's June 10 testimony on the state of the economy to the Joint Economic Committee of the Congress. In his testimony, the Chairman stated, "the current economic

Figure 2 Spot exchange rate of the dollar against the German mark and option-implied volatility, 1998: H1



Source: Federal Reserve Bank of New York; Reuters.

Figure 3 US Treasury yields, 1998: Q2



Source: Bloomberg L.P.

performance, with its combination of strong growth and low inflation, is as impressive as any I have witnessed in my half-century of daily observation of the American economy.'' Further reflecting on inflation, the Chairman stated that although ''consumer price inflation has moved up in the second quarter . . . the rate of rise remains quite moderate overall.''

Chairman Greenspan's testimony reinforced perceptions of a favorable U.S. economic outlook amidst volatility in the financial markets of emerging countries and amidst the resultant decline in risk appetite. Strong demand for treasuries pushed the nominal benchmark thirty-year Treasury yield to record lows, while two-year through ten-year Treasury yields declined below the 5.50 percent federal funds target rate.

WEAKENING OF THE YEN IN RESPONSE TO A DETERIORATING ECONOMIC OUTLOOK IN ASIA

Throughout the quarter, the yen was pressured by anticipation of renewed capital flows out of Japan after the March 31 conclusion of the Japanese fiscal year, the beginning of Japan's liberalization of its foreign exchange laws, and continued weakness in the Japanese economy and financial system. Anticipation of falling demand for yen assets from Japanese investors overshadowed concerns about potential foreign exchange intervention and possible reaction to Japan's growing current account surplus. The April 2 release of the weaker-than-expected Tankan survey of business sentiment and Moody's revision of Japan's sovereign debt outlook from stable to negative on April 3 contributed to perceptions of a worsening Japanese economy. Within the first three trading sessions in April, the Nikkei stock index declined 6.1 percent, to 15,518, and the yen depreciated from ¥133.18 to levels above ¥135. The yen subsequently regained all of its losses, appreciating to ¥131.22 on April 8, after comments by Japanese politicians indicating forthcoming economic stimulus measures.

On April 9 the Japanese government announced details of its fiscal stimulus package, including ¥4 trillion in temporary tax cuts. The yen declined to ¥133.64 as market participants concluded that the planned stimulus measures would not adequately revive the Japanese economy. Later, during the early New York session, the yen rose against the dollar on the basis of reports that the Japanese monetary authorities had intervened in the market—buying yen and selling dollars. Japanese Finance Minister Matsunaga confirmed the intervention, announcing that Japan had taken ''decisive action'' in the foreign exchange market. U.S. Treasury Secretary Robert Rubin stated, ''We welcome Prime Minister Hashimoto's announcement of steps to stimulate the Japanese economy,'' and noted that ''what is crucial is that Japan move quickly to put in place a strong program.'' He also said that ''we share the concern expressed by the Japanese Prime Minister about recent weakness in the yen, and in that context we welcome the action undertaken by the Japanese authorities in the exchange market to support the value of the yen.'' On April 10 the yen appreciated to ¥127.38 amid reports that the Japanese monetary authorities were intervening heavily in Asian foreign exchange markets.

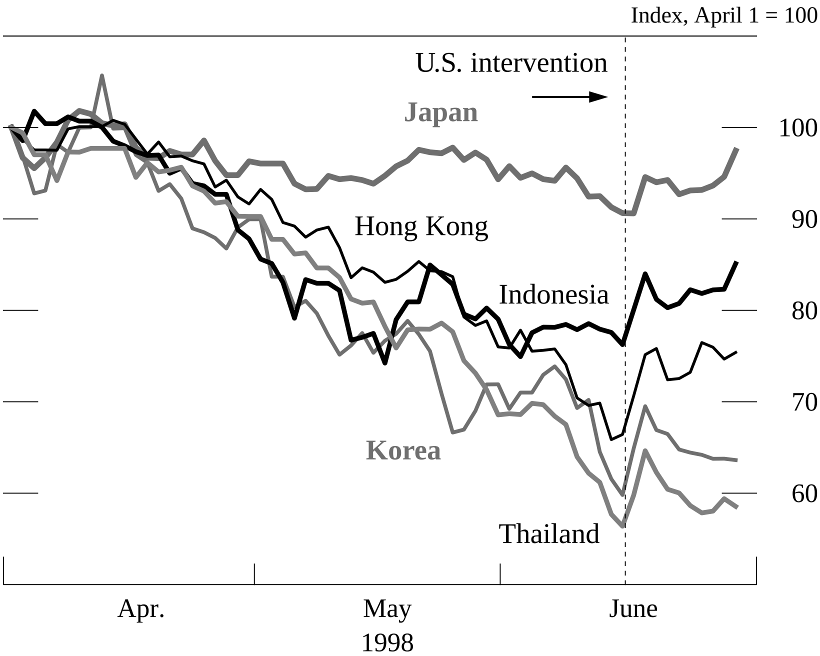
Despite the yen's gains, sentiment toward the yen continued to remain negative, with twelve-month risk reversals continuing to be skewed toward yen puts, reflecting a higher cost of protection against a sharp depreciation of the yen against the dollar. Subsequently, the Group of Seven (G-7) finance ministers and central bank governors met on April 15 and issued a statement emphasizing the importance of avoiding excessive yen depreciation and encouraging steps to stimulate Japanese domestic demand and reduce external imbalances.

Meanwhile, pressure on other Asian currency and capital markets reemerged, as social unrest in Indonesia and potential military tensions in the Indian subcontinent led to a diminishing investor appetite for risk. In Indonesia, the Jakarta JCI stock index fell 17.6 percent during the quarter, and the rupiah declined to record lows above IDR 16,500 per dollar. With the KOSPI stock index declining 38.1 percent during the quarter, Korean markets weakened on continued signs of economic contraction and heightened labor unrest. In Hong Kong, warnings of the possibility of recession from Hong Kong officials and data indicating that first-quarter GDP had contracted 2 percent led to a 25.8 percent decline in the Hang Seng stock index during the second quarter. Hong Kong one-month interbank rates climbed as high as 20.5 percent, and implied yields on three-month forward contracts for Hong Kong dollars rose to quarter highs near 15 percent in mid-June.

Declines in Asian markets and evidence of economic contraction in several Asian countries helped focus investor attention on the weaknesses in other markets. The Russian Moscow Times stock index declined 53.5 percent during the quarter and yields on Russian debt instruments rose higher than 80 percent on the basis of concerns about the government's inability to correct its fiscal imbalance and show progress on structural reforms, and concerns about the effect of declines in commodity prices, particularly oil, on Russian exports. Commodity price declines also pressured the currencies of Canada, Mexico, Australia, and South Africa, with a number of these currencies reaching new record lows. The Canadian dollar depreciated nearly 3.5 percent during the quarter and reached CAD 1.4735 per U.S. dollar on June 15, because of concerns about the effect on the Canadian economy of diminishing exports to Asia and higher nominal U.S. interest rates.

In Japan, economic data releases continued to reinforce negative market sentiment. Japan's unemployment rate reached 4.1 percent in April, its

Figure 4 Asian equity markets, 1998: Q1

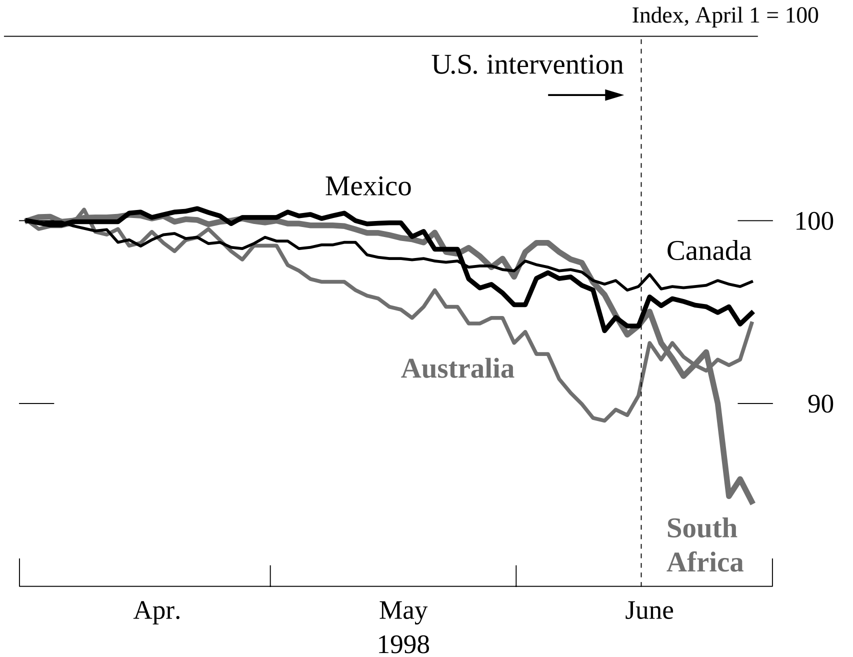


Source: Bloomberg L.P.

highest level since World War II. The yen depreciated beyond the ¥136 level after the Birmingham Group of Eight summit meeting in mid-May. This meeting and the G-7 finance ministers' meeting of the prior week were viewed by many market participants as evidence that the G-7 had moved toward a tolerance of yen depreciation that had not been present at the April 15, G-7 meeting of finance ministers and central bank governors. In late May, the yen declined to a seven-year low of ¥139.25, and the Japanese benchmark bond yield established record lows. Subsequent commentary from numerous Asian and European monetary officials stating concern over the weak yen's effect on global stability underscored market pessimism. Further yen declines stalled ahead of the June 10, G-7 meeting of deputy finance ministers, but resumed upon news that the meeting did not discuss ways to address the yen's decline.

The yen's depreciation accelerated after early June. Concern about a rapid move beyond the ¥140 level became a focal point for further declines in other markets, starting in Asia and extending through other markets. Market nervousness about the risks of a further round of currency depreciation in Asia increased after certain Chinese officials voiced dissatisfaction with the effect of yen depreciation on Chinese trade and economic condi-

Figure 5 Selected currency values against the US dollar, 1998: Q2



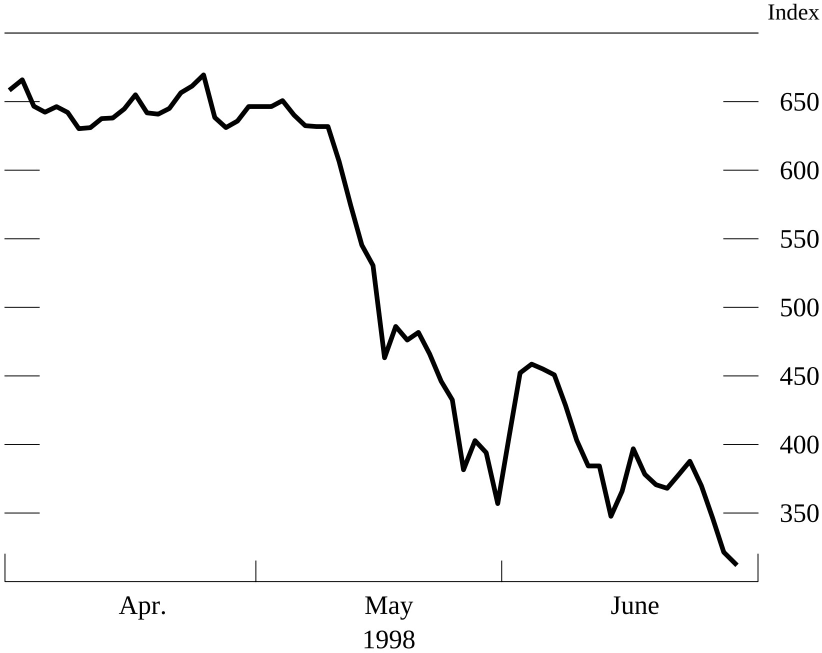
Source: Bloomberg L.P.

tions. Also, market participants initially viewed Secretary Rubin's June 11 remarks in a congressional hearing on economic conditions in Japan as stressing the negative effects of Japanese economic fundamentals and downplaying prospects for coordinated intervention in the foreign exchange market. The yen rapidly declined to an eight-year low of ¥146.67 on June 15, and one-month implied volatility on dollar–yen options reached multiyear highs. Comments from senior Japanese officials that the dollar–yen exchange rate did not reflect economic fundamentals and repeated warnings of ''decisive action'' from Japanese authorities did little to stem the yen's slide.

PURCHASES OF YEN IN THE MARKET BY U.S. MONETARY AUTHORITIES

The June 16 Tokyo trading session was notably volatile, with the yen initially declining to a new low of ¥146.78, then abruptly retracing its decline as a Japanese wire service indicated that U.S. officials were considering a trip to Tokyo to discuss Japan's economic situation. As market

Figure 6 Moscow Times stock index, 1998: Q2



Source: Bloomberg L.P.

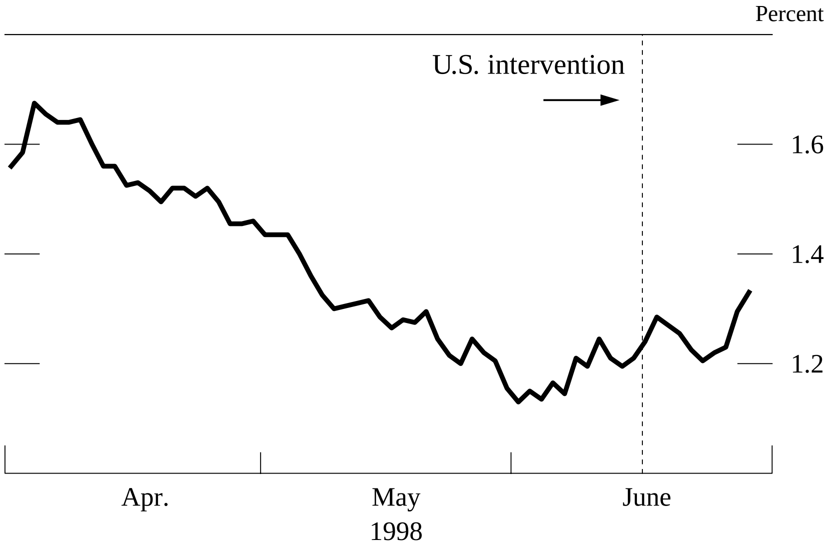
participants reacted to the possibility that measures to address yen weakness were under consideration, the yen continued to strengthen during the June 17 Tokyo trading session, gaining more than one yen from Tuesday's New York close of ¥143.30.

During the June 17 morning session in New York, the foreign exchange desk intervened on behalf of the U.S. monetary authorities—selling dollars and buying yen. The operation began at 7:55 a.m., with the dollar trading at ¥142.21, and the desk operated intermittently until about 9:20 a.m. As the operation began, Japanese Prime Minister Hashimoto issued a statement in which he pledged to ''make every effort to restore [the Japanese] banking system to health [and] to achieve domestic demand-led growth. . . .'' Japanese Finance Minister Matsunaga further elaborated on the Prime Minister's statement, promising to (1) dispose of banks' bad assets more aggressively, (2) accelerate the restructuring of financial institutions, (3) improve the transparency of Japanese banks, and (4) enhance bank supervision standards.

Later, Treasury Secretary Rubin issued the following statement:

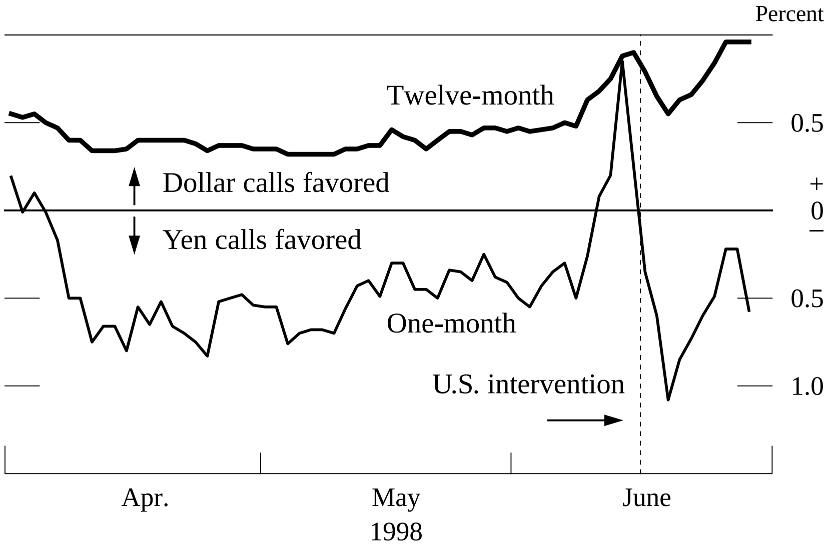
> This morning, the Prime Minister of Japan outlined his Government's plans to restore the health of the Japanese financial system and to strengthen domestic

Figure 7 Japanese benchmark bond yield, 1998: Q2



Source: Bloomberg L.P.

Figure 8 Dollar-yen one-month and twelve-month risk reversals, 1998: Q2



Source: J.P. Morgan.

> demand. We look forward to implementation of a comprehensive action program that will create the conditions that are essential for a healthy and prosperous economy. Japan has the financial resources and the capacity to deal with the challenges it faces. Asia and the international community as a whole have a large stake in Japan's success.
>
> In the context of Japan's plans to strengthen its economy, the U.S. monetary authorities operated in the exchange market this morning in cooperation with the monetary authorities of Japan. We are prepared to continue to cooperate in exchange markets, as appropriate.

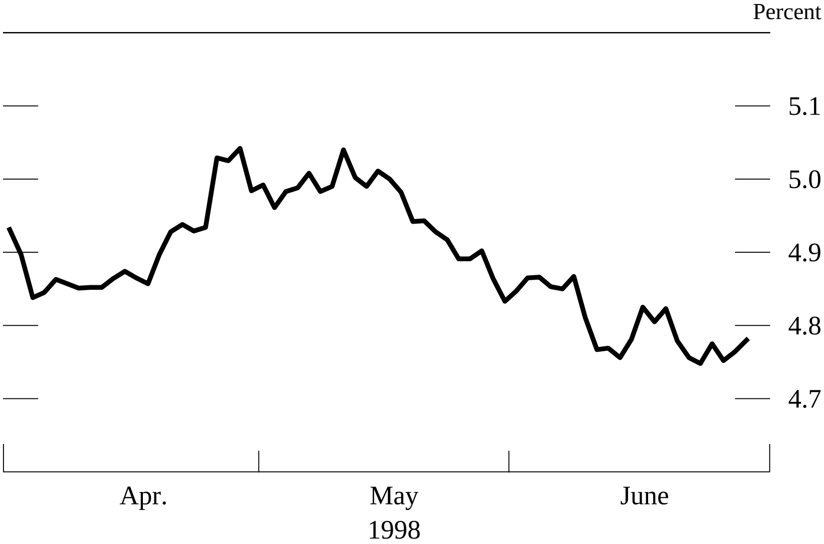
Over the course of the morning, the U.S. monetary authorities sold $833 million against the yen. The amount was evenly split between the U.S. Treasury Department's Exchange Stabilization Fund and the Federal Reserve System. The intervention was coordinated with the operations of the Japanese monetary authorities. The yen continued to appreciate throughout the remainder of the New York session, climbing more than five yen to intraday highs near ¥136 before closing at ¥136.51.

After the intervention, the yen initially extended its gains, largely on market expectations of further economic and financial policy developments in Japan in the near term. However, in market participants' view, such expectations diminished when the June 20 meeting of the Deputies of the Manila Framework Group and the G-7 Deputies in Tokyo concluded with no new public commitments from Japanese officials. The dollar ended the quarter at ¥138.88.

STRENGTHENING OF THE MARK AGAINST BOTH THE DOLLAR AND THE YEN RESULTING FROM CONFIDENCE IN THE EMU AND SIGNS OF GROWTH IN CORE EUROPE

The mark strengthened against both the dollar and the yen during the second quarter. Against the dollar, the mark traded within a DM 1.76–1.86 range through most of the period, climbing more than 10 pfennigs from early quarter lows but partially retracing these gains toward the latter half of the quarter. The mark's initial appreciation resulted from a removal of residual uncertainty regarding the EMU after formal selection of eleven first-round members at the May 1–3 European Union summit. Confidence in the single currency was not significantly diminished by the protracted debate over the selection of Wim Duisenburg as the European Central Bank's first president, nor by the debate over the length of his term, which some viewed as potentially compromising the central bank's future

Figure 9 German benchmark bond yield, 1998: Q2



Source: Bloomberg L.P.

credibility. European asset markets benefited from the positive EMU outlook as well as from shifts of portfolio preferences from riskier asset markets. Equities in Germany and France continued to rise, with the German DAX and the French CAC-40 stock indexes up 14.6 percent and 8.5 percent for the quarter and 38.3 and 40.2 per-cent for the year respectively. European credit markets rallied, with the yield on the German ten-year benchmark bond reaching record lows.

In early May, expectations for tighter monetary policy in Germany contributed to further mark strength. After the selection of the founding members of the EMU, Bundesbank officials alluded to taking EMU considerations into account more when con-ducting monetary policy. These comments heightened expectations for a German rate increase, as market participants speculated that the Bundesbank might seek to quell inflationary pressures in certain EMU member countries.

Toward the latter half of the quarter, the mark gave back nearly half of its gains against the dollar as expectations for tighter monetary policy in Germany diminished given the benign inflation environment in core European countries, renewed weakness in emerging markets, and concerns over developments in Russia. Reflecting these developments, the implied yield on the December 1998 Euromark contract declined 22 basis points from peak levels in mid-April. The dollar ended the quarter at DM 1.8080, after having declined 2.2 percent.

TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE RESERVES

At the end of the quarter, the current values of the German mark and Japanese yen reserve holdings totaled $17.3 billion for the Federal Reserve System and $13.9 billion for the 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 that have a high degree of liquidity and credit quality. A significant portion of these balances is invested in German and Japanese government securities held directly or under repurchase agreement. As of June 30, outright holdings of government securities by U.S. monetary authorities totaled $7.1 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 agreement by the U.S. monetary authorities totaled $11.3 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.

Table 1 Foreign exchange holdings of US monetary authorities based on current exchange rates, 1998: Q2 (millions of dollars)

Item	Balance, 31 March 1998	Quarterly change in balance by source					Balance, 30 June 1998
		Net purchases and sales[1]	Impact of sales[2]	Investment income	Currency valuation adjustments[3]	Interest accrual (net) and other	
Federal Reserve							
Deutsche marks	11,265.9	.0	.0	94.8	291.3	.0	11,652.0
Japanese yen	5,361.4	416.7	.0	4.3	−192.6	.0	5,589.8
Interest receivables[4]	73.0	. . .	. . .	. . .	. . .	7.5	80.5O
Other cash flow from investments[5]	10.7	. . .	. . .	. . .	. . .	−.2	10.5
Total	**16,711.0**	**416.7**	. . .	**99.1**	**98.7**	**7.3**	**17,332.8**
US Treasury Exchange Stabilization Fund							
Deutsche marks	5,703.1	.0	.0	47.6	−147.5	.0	5,898.2
Japanese yen	7,860.4	416.7	.0	5.9	−282.9	.0	8,000.1
Interest receivables[4]	36.7	. . .	. . .	. . .	. . .	5.3	42.0
Other cash flow from investments[5]	18.2	. . .	. . .	. . .	. . .	−.3	17.9
Total	**13,618.4**	**416.7**	**. . .**	**53.5**	**−135.4**	**5.0**	**13,958.2**

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

Table 2. Net profits or losses on US Treasury and Federal Reserve foreign exchange operations, based on historical cost-of-acquisition exchange rates, 1998: Q2 (millions of dollars)

Period and item	Federal Reserve	US Treasury Exchange Stabilization Fund
Valuation profits and losses on outstanding assets and liabilities, March 31, 1998		
Deutsche marks	(251.4)	(536.1)
Japanese yen	174.5	263.1
Total	**(76.9)**	**(273.0)**
Realized profits and losses from foreign currency sales, March 31, 1998-June 30, 1998		
Deutsche marks	.0	.0
Japanese yen	.0	.0
Total	**.0**	**.0**
Valuation profits and losses on outstanding assets and liabilities, June 30, 1998		
Deutsche marks	39.9	−388.6
Japanese yen	−18.2	−20.2
Total	**21.7**	**−408.8**

Table 3. Currency arrangements, 30 June 1998 (millions of dollars)

Institution	Amount of facility	Outstanding, 30 June 1998
	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	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**
	US Treasury Exchange Stabilization Fund currency arrangements	
Deutsche Bundesbank	1,000	0
Bank of Mexico	3,000	0