TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

January–March 2010

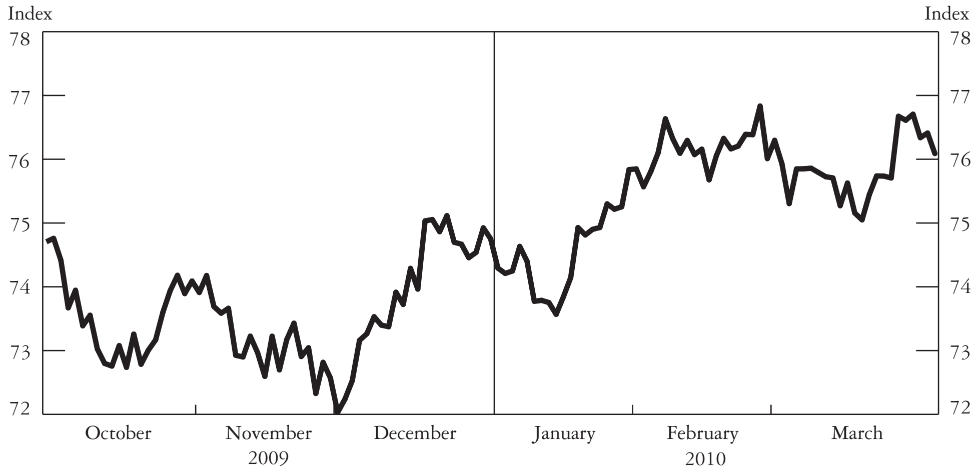
During the first quarter of 2010, the U.S. dollar's trade-weighted exchange value appreciated 1.8 percent, as measured by the Federal Reserve Board's major currencies index. The dollar appreciated 6.1 percent against the euro and 0.5 percent against the Japanese yen. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

Two key factors influenced global foreign exchange rates during the quarter. First, the varying pace of economic growth among developed and emerging-market economies amid the ongoing improvements in the global growth outlook played a major role in driving foreign exchange rates. Second, the sovereign fiscal outlook of developed economies gained significant attention, as investors grew increasingly sensitive to the sustainability of fiscal deficits and debt. Over the quarter, the U.S. dollar appreciated against some major currencies, benefiting from greater relative near-term economic momentum and lesser relative near-term fiscal pressures. However, the dollar depreciated against the currencies of many cyclically sensitive economies, as these countries were expected to gain more from the upturn in global growth and experience less drag from fiscal consolidation.

This report, presented by Brian Sack, Executive Vice President, Federal Reserve Bank of New York, and Manager of the 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 January through March 2010. Jason Miu was primarily responsible for preparation of the report.

Chart 1

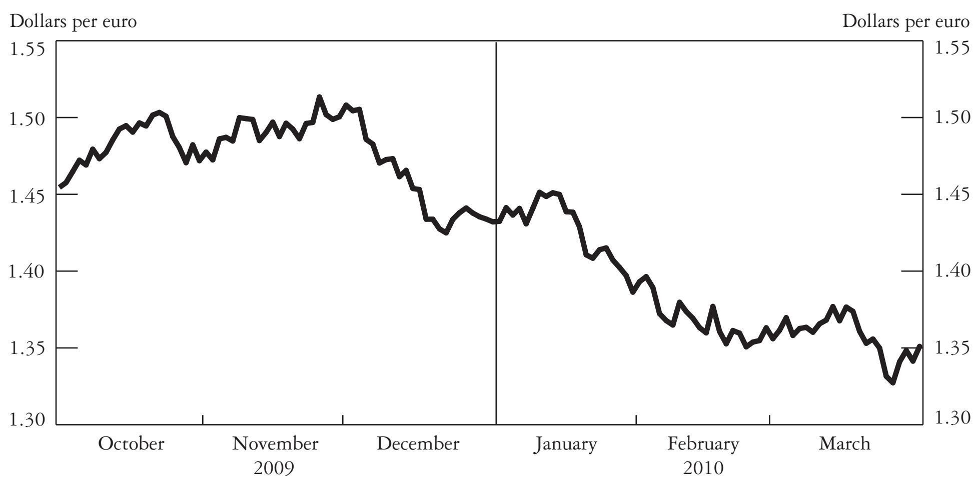
TRADE-WEIGHTED U.S. DOLLAR



Sources: Board of Governors of the Federal Reserve System; Bloomberg L.P.

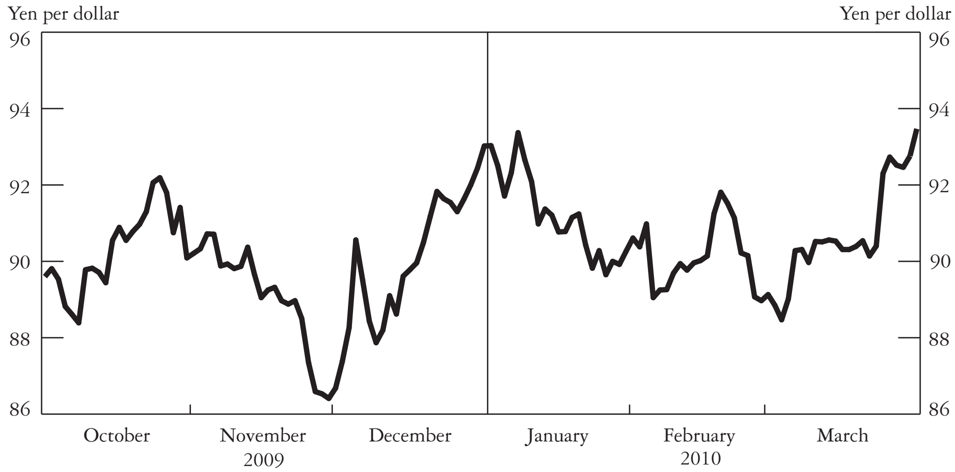
Chart 2

EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3
U.S. DOLLAR–YEN EXCHANGE RATE



Source: Bloomberg L.P.

RELATIVE GROWTH PROSPECTS CONTINUE TO BENEFIT DOLLAR AGAINST SOME MAJOR CURRENCIES

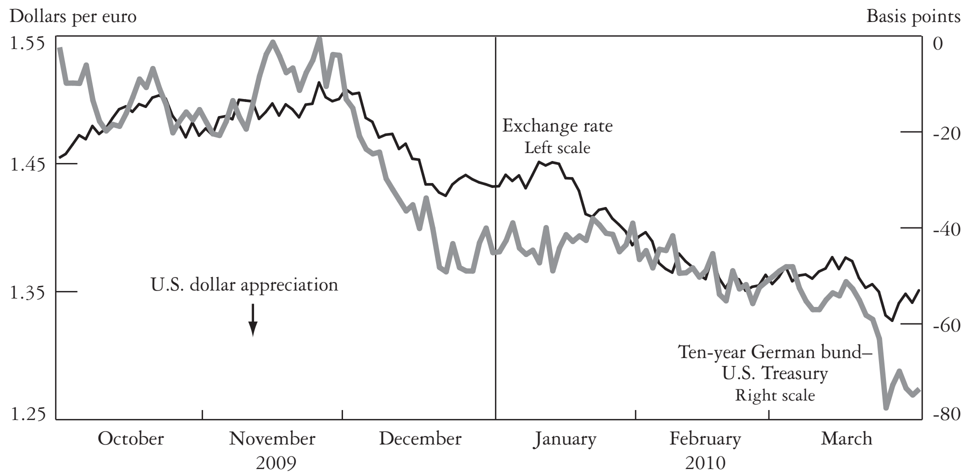
Foreign exchange rates continued to reflect the varying pace of economic growth among economies against the backdrop of an improving global growth outlook. Throughout the quarter, these differences provided support to the U.S. dollar against the currencies of some other developed economies, given the generally improved trend of U.S. economic data. Economic data releases in other developed economies, such as the euro area, the United Kingdom, and Japan, also showed some improvement but were generally characterized as painting a more mixed picture for the outlook. Consistent with this differentiation, the U.S. dollar depreciated against the currencies of economies more sensitive to global growth and trade, such as Canada, Australia, and many emerging Asian economies.

Market participants pointed to strength in the manufacturing sector, increases in business investment and consumer spending, and a stabilization of employment data in the United States as indicative of the improving growth outlook. This assessment was consistent with the Federal Open Market Committee's (FOMC) characterization that economic activity was continuing to strengthen. During the quarter, market participants widely discussed increasing sensitivity to the timing of the FOMC's removal of its accommodative monetary policy stance. This issue garnered greater attention given the expiration of many of the Federal Reserve's liquidity facilities on February 1 and the end of the large-scale asset purchase programs at the end of March. Market participants also noted an emerging discussion among policymakers at the January FOMC meeting about the characterization of economic and financial conditions as warranting "exceptionally low levels of the federal funds rate for an extended period." However, comments from other FOMC members continued to highlight risks to the growth outlook, particularly as housing data began to show renewed signs of strain. Despite the ongoing debate, market-based expectations for the path of near-term policy rates were little changed.

In the euro area, the data were more mixed, with analysts increasingly noting the divergence in the economic outlooks for the largest euro-area countries, such as Germany and France, compared with other countries perceived to be facing greater fiscal headwinds over the coming years. These headwinds contributed to greater downside risks to the overall growth outlook for the euro area, as countries implement fairly tough fiscal reforms that could weigh on potential growth prospects both domestically and for their major trade partners. Positive indications were more evident in survey-based business confidence releases, although market participants are still awaiting greater signs of strength among consumers and improvements in private domestic demand, particularly in some of the "core" euro-area countries. Market-based measures of the level of the overnight rate at year-end showed a modest decline over the quarter, suggesting that the European Central Bank (ECB) would keep its policy stance accommodative in the near term. However, the ECB continued to phase out aspects of its extraordinary liquidity policies, holding its last six-month, longer term refinancing operation in March.

Movements in interest rate differentials between German bunds and U.S. Treasury yields were consistent with perceptions of the relative growth outlook. The decline in the euro–U.S. dollar currency pair also closely reflected these developments. Sentiment toward the currency pair was also evident in investor positioning, with dealer reports and International Money Market noncommercial positioning data suggesting a continued increase in short euro positions against the dollar.

Chart 4
EURO–U.S. DOLLAR EXCHANGE RATE AND TEN-YEAR INTEREST RATE DIFFERENTIALS



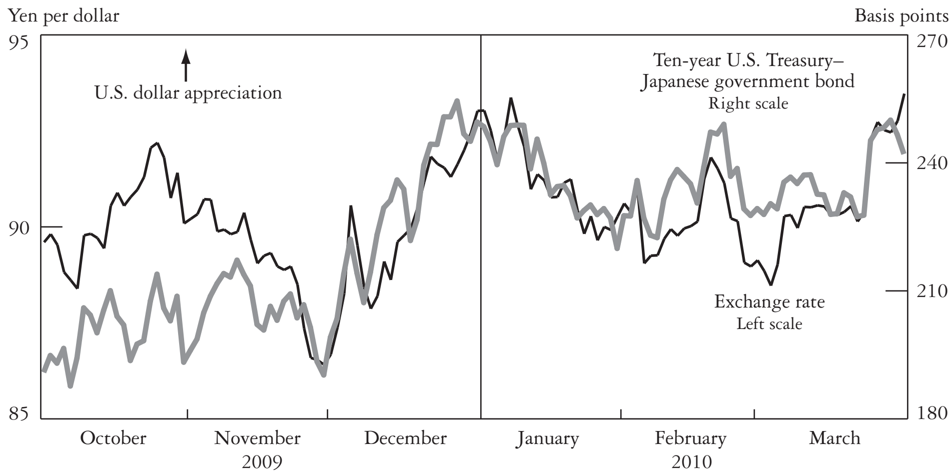
Source: Bloomberg L.P.

In the United Kingdom, market concerns over the fiscal outlook seemed to be reflected in the performance of the British pound, which depreciated 6.1 percent against the U.S. dollar during the quarter. This interpretation of market developments was consistent with the assessment made by the Bank of England (BoE) in the minutes of its March monetary policy meeting. However, the mixed results from the economic data most likely also contributed to the depreciation of the pound. Most notably, indicators of housing activity were somewhat softer while investment spending also remained a drag on growth. In contrast, labor market and business surveys remained more buoyant. In addition, headwinds to growth in the United Kingdom's main trading partners in the euro area also posed uncertainties regarding the extent to which external demand could boost the U.K. economy, despite the decline in the pound.

Economic data in Japan appeared to show a somewhat better trend in the first quarter, particularly in March with the Bank of Japan's (BoJ) Tankan report indicating a notable improvement in the outlook for manufacturing activity. Still, analysts expressed reservations about the overall outlook, given that household spending remained soft and inflation indicators continued to show declines in prices. The prospects for continued price declines contributed to the BoJ's decision to expand its fixed-rate, three-month term liquidity facility, introduced in December, from ¥10 trillion to ¥20 trillion. The relative growth prospects in Japan and the United States were reflected in the ten-year interest rate differential between Japanese government bonds and U.S. Treasuries, which showed a strong correlation with the U.S. dollar–yen currency pair during the quarter.

Chart 5

U.S. DOLLAR–YEN EXCHANGE RATE AND TEN-YEAR INTEREST RATE DIFFERENTIALS



Source: Bloomberg L.P.

The currencies of the more cyclically sensitive emerging Asian economies and commodity exporters benefited from the improved global outlook and global trade activity. The pick-up in economic activity prompted several central banks to begin or continue tightening monetary policy, or implement other prudential measures to stem asset price appreciation and credit growth. Notably, China continued to release stronger-than-expected data, with credit growth remaining robust. Consistent with this outlook, the People's Bank of China began to tighten monetary policy by raising the rates paid on sterilization bills and increasing reserve requirements over the quarter, while authorities have also implemented more targeted measures to restrain property-related lending. In addition, other emerging Asian economies began the year with healthy economic data releases—including India, where the Reserve Bank of India also actively utilized a number of tools to manage the risks of inflation. The ongoing improvements in the global outlook also contributed to a rise in commodity prices. In particular, crude oil rose 5.5 percent and copper prices rose approximately 4.7 percent. As such, the currencies of major commodity exporters, such as Australia and Canada, appreciated 2.2 and 3.7 percent, respectively, against the U.S. dollar, given the strength of their outlooks and their relatively strong fiscal positions. The improvement in the global economic outlook also prompted the Reserve Bank of Australia to increase its policy rate by 25 basis points.

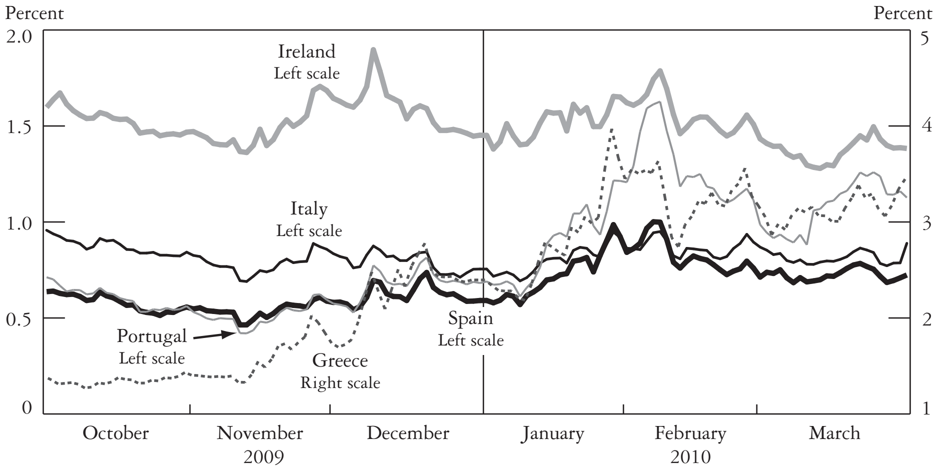
DOLLAR ALSO APPRECIATES AMID HEIGHTENED FOCUS ON COUNTRIES' FISCAL OUTLOOKS

Foreign exchange and capital markets reflected increasing sensitivity to sovereign fiscal concerns. These concerns carried over from the prior quarter and were especially acute for countries in the euro-area periphery. From January to early February, price action reflected increasing concern about a possible escalation of fiscal tensions, with investors focused on whether these fiscal issues could become a broader systemic issue. Market participants focused on three primary transmission channels for fiscal challenges: the potential for fiscal restraint to weigh on growth prospects, cross-border exposures through the banking system, and a re-evaluation of returns required to fund other sovereigns that were perceived to be in a similar fiscal position. As such, the U.S. dollar appreciated against most major currencies during the quarter given that the United States was perceived to have a more resilient growth outlook than many other major economies. Other assets sensitive to the growth outlook underperformed through early February as the risk of fiscal spillovers was heightened. For example, through the first week of February, the S&P 500 index declined 5.2 percent; the investment-grade CDX widened 21 basis points while equity-implied volatility rose 5 percentage points from relatively low levels. However, the second half of the quarter was characterized by greater differentiation among currencies and by a renewed confidence in the global growth outlook, as the likelihood of broader systemic risks appeared to moderate and the prices of growth-sensitive assets improved.

In the euro area, fiscal concerns were most evident for Greece, which saw a sharp increase in its funding costs relative to Germany's. Market participants increasingly focused on the Greek government's ability to implement its front-loaded plan to sharply reduce the deficit by approximately 4 percentage points in 2010 and meet the more than €20 billion in financing requirements through May. These uncertainties were compounded by much discussion over the quality of the country's fiscal accounts and uncertainty about the extent to which other euro-area members might provide support to Greece, if necessary. The funding costs for most other euro-area countries also increased relative to benchmark German securities, but to a much lesser degree than those for Greece. Concerns over Portugal's macroeconomic and structural weaknesses prompted a one-notch downgrade of the country to "AA-" by Fitch Ratings near the end of the quarter, although the rating agencies appeared slightly more sanguine about the government's plan for structural and fiscal reform. Notably, Ireland, which was perceived as implementing a fairly austere fiscal reform package, came under much less pressure in the sovereign debt markets, despite ongoing discussion about the implications of the government's financial sector support for the fiscal outlook.

Chart 6

TEN-YEAR INTEREST RATE SPREADS TO GERMANY

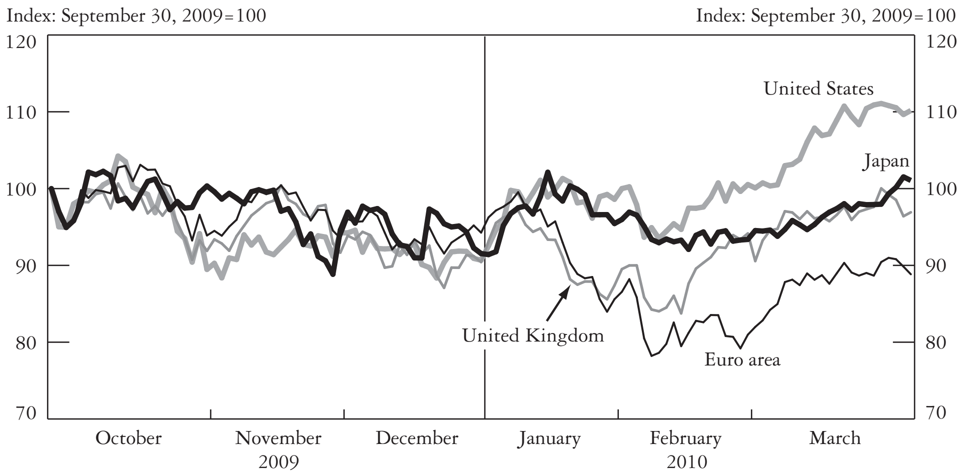


Source: Bloomberg L.P.

The extent to which an escalation of fiscal concerns in some euro-area countries could transmit through the banking system also weighed on asset prices through the quarter. These concerns weighed most on euro-area bank share prices, either because of potential stresses in the countries where the banks operate or through cross-border exposures to other sovereigns. The banking subcomponent of the EURO STOXX equity index declined 5.8 percent during this period, compared with a 21.8 percent rise in U.S. bank share prices. Further, some market participants discussed the phasing out of the ECB's extraordinary support measures as posing some risks to the banking sector if sovereign concerns intensified.

Chart 7

BANK INDEX PERFORMANCE

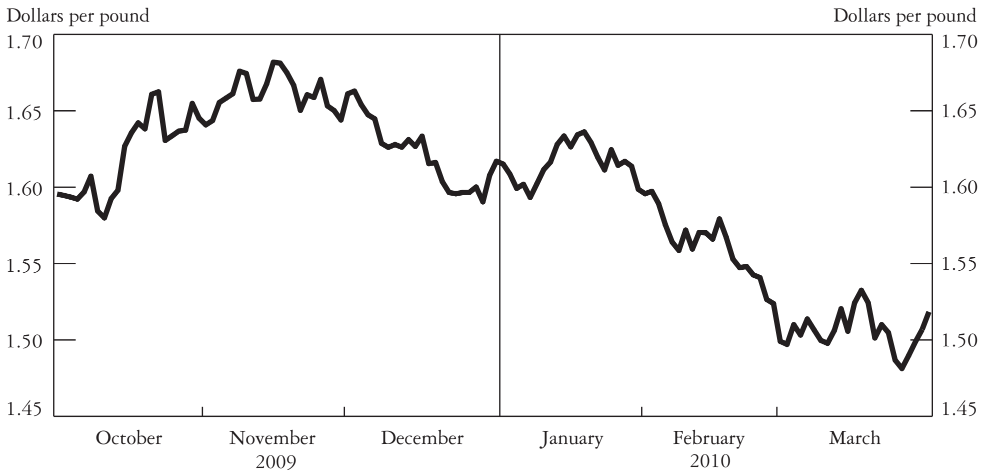


Source: Bloomberg L.P.

The near-term risks for the fiscal outlooks of other major developed economies were perceived by market participants to be lower than risks for the euro-area periphery. However, market participants did discuss the potential impact on yields of the sizable amounts of debt issuance expected in the United Kingdom, Japan, and the United States. The increase in the United Kingdom's fiscal deficit and record levels of debt issuance came under greater scrutiny, particularly after the late-2009 release of the fiscal-year pre-budget report revealed a much larger-than-expected borrowing requirement. Near-term uncertainties associated with the end of the BoE's gilt purchases, which absorbed the majority of fiscal-year 2010 gilt issuance, and the potential for political deadlock following upcoming elections weighed on the prospects for the British Parliament to pass significant fiscal reform measures. These concerns contributed to a sharp depreciation of the pound relative to the U.S. dollar.

Chart 8

BRITISH POUND–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Market participants also continued to discuss Japan's sizable debt burden, especially against the backdrop of the ongoing weakness in the real economy. Consistently, Standard and Poor's cited these two factors when placing Japan's "AA" rating on negative outlook during the first quarter. However, typically strong seasonal flows associated with the repatriation of capital ahead of the Japanese fiscal year-end in March reportedly provided strong support for the yen.

LIQUIDITY CONDITIONS IN DOLLAR FUNDING MARKETS CONTINUE TO STABILIZE

Liquidity conditions in U.S. dollar funding markets remained stable in the first quarter. Spreads between the U.S. dollar Libor (London interbank offered rate) and overnight index swaps at the three-month tenor were unchanged at the end of the quarter at approximately 9 basis points. Despite the continued improvement in funding conditions, secured and unsecured funding rates firmed modestly in mid-March. The effective overnight federal funds rate and Treasury general collateral repo rates rose to approximately 20 basis points from average levels of approximately 14 basis points for most of the quarter. This rise was attributed to a range of factors, including the increase in the Treasury's Supplementary Financing Program, changes in the behavior of major lenders in the federal funds market, and the proximity to quarter-end.

Consistent with the overall stabilization in funding markets, the Federal Reserve's temporary reciprocal currency arrangements (dollar liquidity swap lines) expired, as announced, on February 1. To facilitate the functioning of financial markets and provide liquidity in U.S. dollars abroad, the FOMC initially authorized the dollar liquidity swap lines on December 12, 2007, with the ECB and the Swiss National Bank. The swap lines were subsequently extended to the Reserve Bank of Australia, Banco Central do Brasil, the Bank of Canada, Danmarks Nationalbank, the BoE, the BoJ, the Bank of Korea, Banco de México, the Reserve Bank of New Zealand, Norges Bank, the Monetary Authority of Singapore, and Sveriges Riksbank. The last outstanding draw under the central bank liquidity swap arrangements matured on February 12. This final maturity contributed to a decline of $10.3 billion in outstanding liquidity swaps from the prior quarter and a significant decline from the December 2008 peak of approximately $580 billion. Only the ECB and the BoJ actively used the swap lines in the first quarter, a decline from the four central banks that had actively drawn on their swap lines in the prior quarter.

TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE HOLDINGS

The U.S. monetary authorities did not undertake any intervention operations during the quarter. The current value of the foreign-currency-denominated assets of the U.S. Treasury's Exchange Stabilization Fund totaled $24.4 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled $24.5 billion.

Foreign Exchange Reserve Holdings

The U.S. monetary authorities invest their foreign currency reserves in a variety of instruments that yield market-related rates of return and have a high degree of liquidity and credit quality. The investments are split evenly between the System Open Market Account and the Exchange Stabilization Fund. Approximately half of the U.S. monetary authorities' foreign exchange reserves is invested on an outright basis in German, French, and Japanese government securities. In addition, the portfolio holds short-term foreign-currency deposits at the Bank for International Settlements and in facilities at other official institutions; it also invests funds in short-term repurchase agreements using foreign government securities as collateral. Under euro-denominated repurchase agreements, the U.S. monetary authorities accept sovereign debt backed by the full faith and credit of the following governments: Belgium, France, Germany, Italy, the Netherlands, and Spain. As of March 31, direct holdings of foreign government securities totaled $23.1 billion, deposits denominated in foreign currency totaled $20.9 billion, and repurchase agreements denominated in foreign currency totaled $4.9 billion. All of these investments were split evenly between the Federal Reserve System Open Market Account and the U.S. Treasury Exchange Stabilization Fund.

Table 1

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

Millions of U.S. Dollars

		Change in Balances by Source				
	Carrying Value, December 31, 2009[a]	Net Purchases and Sales[b]	Investment Earnings[c]	Realized Gains/Losses on Sales[d]	Unrealized Gains/ Losses on Foreign Currency Revaluation[e]	Carrying Value, March 31, 2010[a]
Federal Reserve System Open Market Account (SOMA)						
Euro	14,923	0	46	0	(840)[f]	14,129
Japanese yen	10,349	0	11	0	(36)[f]	10,325
Total	25,272	0	58	0	(876)	24,454

	Carrying Value, December 31, 2009[a]	Change in Swaps Outstanding	Change in Accrued Interest Receivable	Change in Exchange Translation Liability on Foreign Exchange Swaps	Carrying Value, March 31, 2010[a]
Reciprocal currency arrangements					
Euro	6,514	(6,506)	(4)	(3)[f,g]	0
Swiss franc	0	0	0	0[f,g]	0
Japanese yen	519	(545)	(0)	26[f,g]	0
British pound	0	0	0	0[f,g]	0
Danish krone	0	0	0	0[f,g]	0
Australian dollar	0	0	0	0[f,g]	0
Swedish krona	0	0	0	0[f,g]	0
Norwegian krone	0	0	0	0[f,g]	
South Korean won	0	0	0	0[f,g]	0
Mexican peso	3,231	(3,221)	(5)	(5)[f,g]	0
Total	10,264	(10,272)	(9)	18	—

		Change in Balances by Source				
	Carrying Value, December 31, 2009[a]	Net Purchases and Sales[b]	Investment Earnings[c]	Realized Gains/Losses on Sales[d]	Unrealized Gains/ Losses on Foreign Currency Revaluation[e]	Carrying Value, March 31, 2010[a]
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	14,898	0	46	0	(838)	14,106
Japanese yen	10,350	0	11	0	(36)	10,325
Total	25,248	0	58	0	(874)	24,431

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

[a] Carrying value of the reserve asset position includes interest accrued on foreign currency, which is based on the "day of" accrual method.

[b] Net purchases and sales include foreign currency purchases related to official activity, swap drawings and repayments, and warehousing.

[c] Investment earnings include accrued interest and amortization on outright and swap-related holdings.

[d] Gains and losses on sales are calculated using average cost.

[e] Reserve asset balances are revalued daily at the noon buying rates.

[f] Valuation adjustments on swap-related holdings do not affect profit and loss because the impact is offset by the unwinding of the forward contract at the repayment date.

[g] Figures represent the exchange translation liability on reciprocal currency arrangements.

Table 2

BREAKDOWN OF FOREIGN RESERVE ASSETS HELD

Carrying Value in Millions of U.S. Dollars, as of March 31, 2010

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets:	14,105.9	14,129.0
Cash held on deposit at official institutions	7,032.7	7,055.8
Marketable securities held under repurchase agreements[b]	2,464.6	2,464.6
Marketable securities held outright	4,608.7	4,608.7
German government securities	1,980.6	1,980.6
French government securities	2,628.0	2,628.0
Japanese-yen–denominated assets:	10,325.2	10,325.2
Cash held on deposit at official institutions	3,407.5	3,407.5
Marketable securities held outright	6,917.7	6,917.7
Reciprocal currency arrangements:		
Euro-denominated assets:		0.0
Other assets[c]		0.0
Japanese-yen–denominated assets:		0.0
Other assets[c]		0.0
Swiss-franc–denominated assets:		0.0
Other assets[c]		0.0
Canadian-dollar–denominated assets:		0.0
Other assets[c]		0.0
British-pound–denominated assets:		0.0
Other assets[c]		0.0
Danish-krone–denominated assets:		0.0
Other assets[c]		0.0
Australian-dollar–denominated assets:		0.0
Other assets[c]		0.0
Swedish-krona–denominated assets:		0.0
Other assets[c]		0.0
Norwegian-krone–denominated assets:		0.0
Other assets[c]		0.0
South-Korean-won–denominated assets:		0.0
Other assets[c]		0.0
Mexican-peso–denominated assets:		0.0
Other assets[c]		0.0

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

[a] As of March 31, the euro SOMA and ESF portfolios both had Macaulay durations of 9.4 months; the yen SOMA and ESF portfolios both had Macaulay durations of 11.1 months.

[b] Sovereign debt obligations of Belgium, France, Germany, Italy, the Netherlands, and Spain are currently eligible collateral for reverse repo transactions.

[c] Carrying value of outstanding reciprocal currency swaps with the European Central Bank, the Swiss National Bank, the Bank of Japan, the Bank of Canada, the Bank of England, Danmarks Nationalbank, the Reserve Bank of Australia, Sveriges Riksbank, Norges Bank, the Reserve Bank of New Zealand, the Bank of Korea, Banco Central do Brasil, Banco de México, and the Monetary Authority of Singapore.

Table 3

RECIPROCAL CURRENCY ARRANGEMENTS

Millions of U.S. Dollars

Institution	Amount of Facility	Outstanding as of March 31, 2010
	Federal Reserve System Open Market Account (SOMA)	
Bank of Canada	2,000	0
Banco de México	3,000	0
European Central Bank[a]	Unlimited	0
Swiss National Bank[a]	Unlimited	0
Bank of Japan[a]	Unlimited	0
Bank of Canada[a]	30,000	0
Bank of England[a]	Unlimited	0
Danmarks Nationalbank[a]	15,000	0
Reserve Bank of Australia[a]	30,000	0
Sveriges Riksbank[a]	30,000	0
Norges Bank[a]	15,000	0
Reserve Bank of New Zealand[a]	15,000	0
Bank of Korea[a]	30,000	0
Banco Central do Brasil[a]	30,000	0
Banco de México[a]	30,000	0
Monetary Authority of Singapore[a]	30,000	0
Total	Unlimited	0
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Banco de México	3,000	0
Total	3,000	0

[a] Temporary swap arrangement.