TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

January–March 2012

During the first quarter, the U.S. dollar's nominal trade-weighted exchange value depreciated 0.8 percent as measured by the Federal Reserve Board's major currencies index, despite significant dollar appreciation against the yen. The dollar depreciated broadly, including 2.8 percent against the euro, but appreciated 7.8 percent against the Japanese yen. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

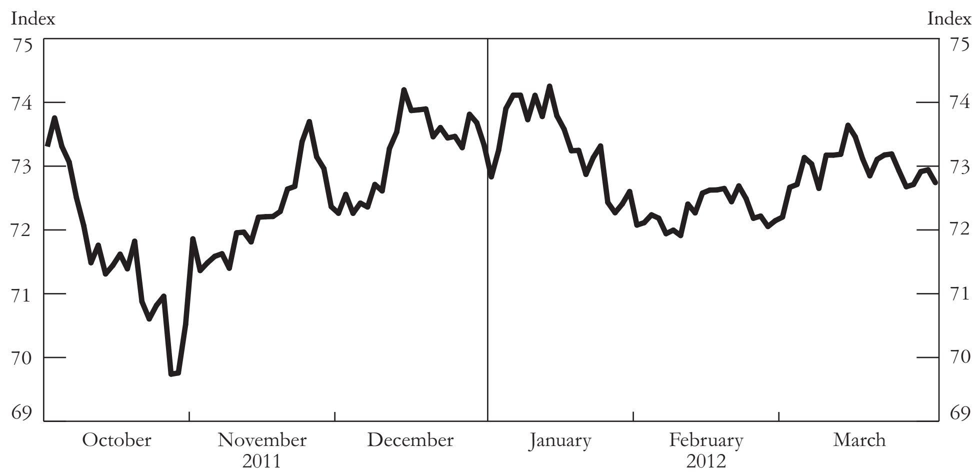
U.S. DOLLAR DEPRECIATES BROADLY AMID IMPROVED INVESTOR SENTIMENT

During the first quarter, the U.S. dollar depreciated broadly against most currencies, with the exception of the Japanese yen. The dollar's depreciation reflected a few factors, including policy actions by global central banks and investor perceptions of an improving global growth outlook. These factors helped bolster investor sentiment, leading to improvements in liquidity and funding market conditions, significant gains in equity prices and other risky asset prices, and a decline in realized and implied volatility on many asset prices. This improved sentiment led investors to shift their portfolios back toward higher-yielding investments, reducing their demand for safe-haven assets, including many dollar-denominated assets. Later in the quarter, however, the dollar began to appreciate, in part reflecting improvements to the outlook for the U.S. economy relative to other economies, including the euro area and China.

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 2012. Roosevelt Bowman was primarily responsible for preparation of the report.

Chart 1

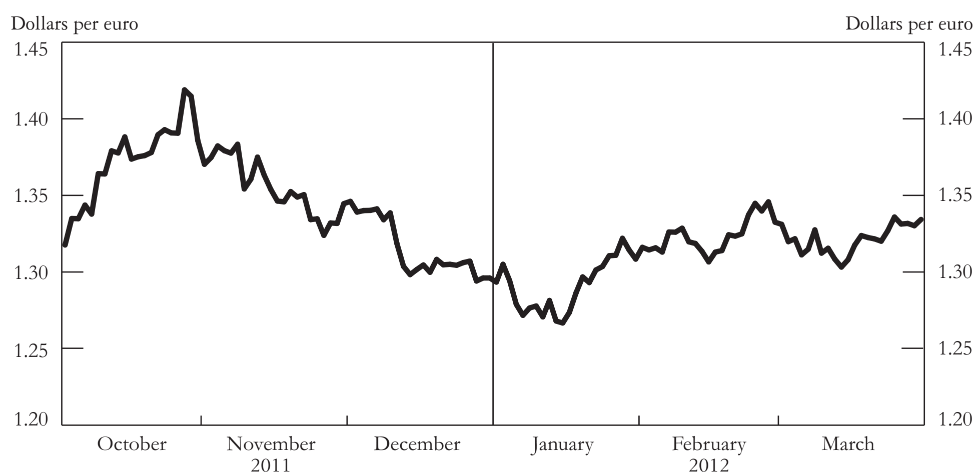
TRADE-WEIGHTED U.S. DOLLAR



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

Chart 2

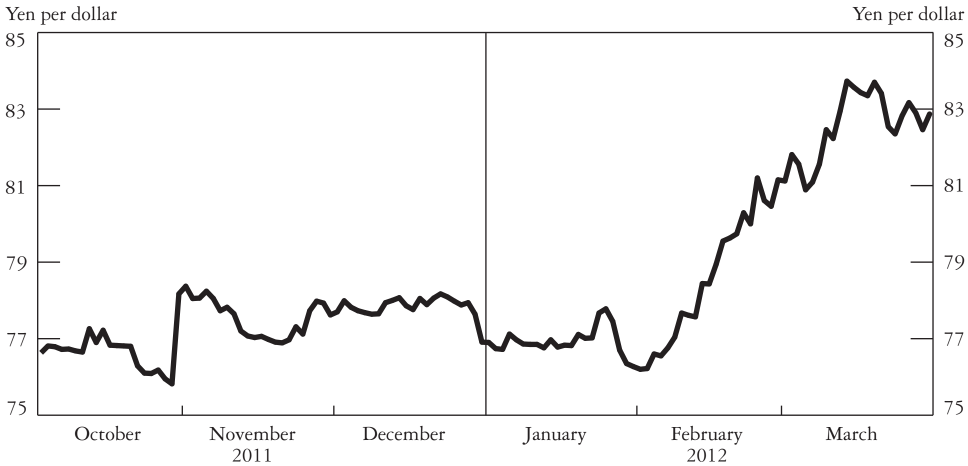
EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3

U.S. DOLLAR–YEN EXCHANGE RATE

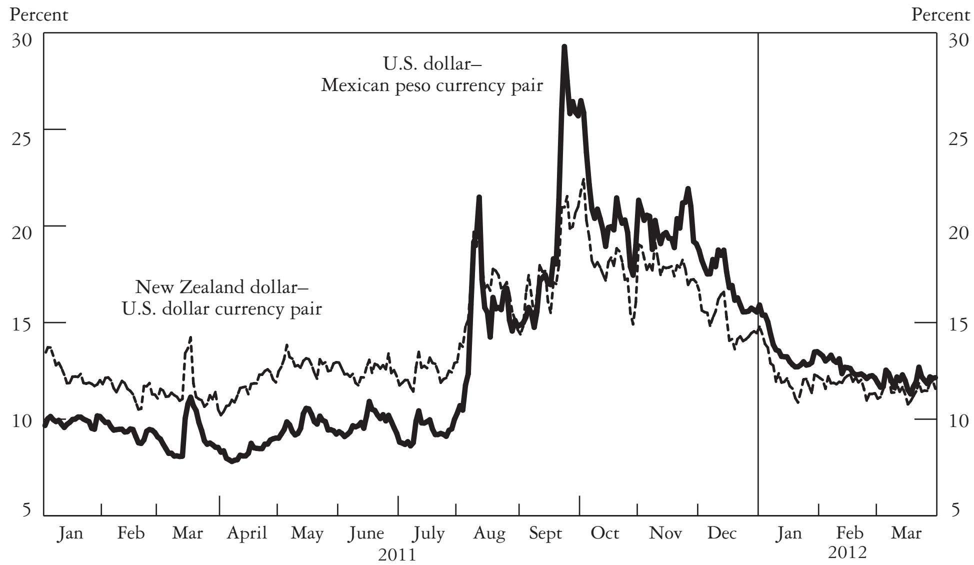


Source: Bloomberg L.P.

Reflecting the improving global growth outlook, the dollar depreciated noticeably against emerging market and commodity-sensitive currencies. In particular, the dollar depreciated almost 8 percent against the Mexican peso and between 4 and 5 percent against the Norwegian krone, Swedish krona, and New Zealand dollar. Additionally, the decline in foreign exchange implied volatility was notable, as one-month implied volatility for the U.S. dollar–Mexican peso currency pair fell to its lowest levels since April 2011, and the same measure for the New Zealand dollar–U.S. dollar exchange rate declined markedly. A similar decrease in volatility was observed across asset classes. Indeed, the VIX index of implied equity volatility declined almost 8 percentage points to approximately 16 percent, its lowest level in almost a year. The improved global growth outlook supported commodity prices during the quarter, although rising geopolitical concerns in the Middle East were also a significant driver. The S&P GSCI Commodity Spot Index rose 6.8 percent during the period, while the front-month Brent crude oil contract increased 14.4 percent, supporting the Mexican peso and Norwegian krone.

Chart 4

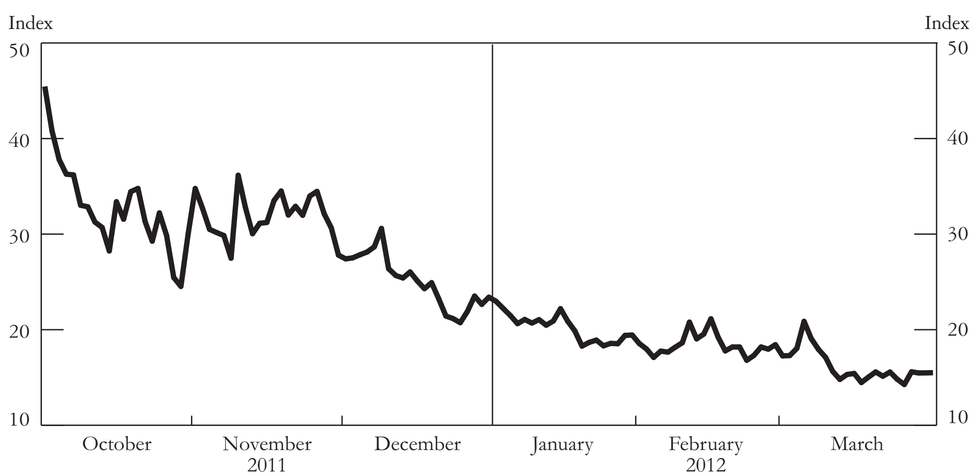
ONE-MONTH IMPLIED FOREIGN EXCHANGE VOLATILITY



Source: Bloomberg L.P.

Chart 5

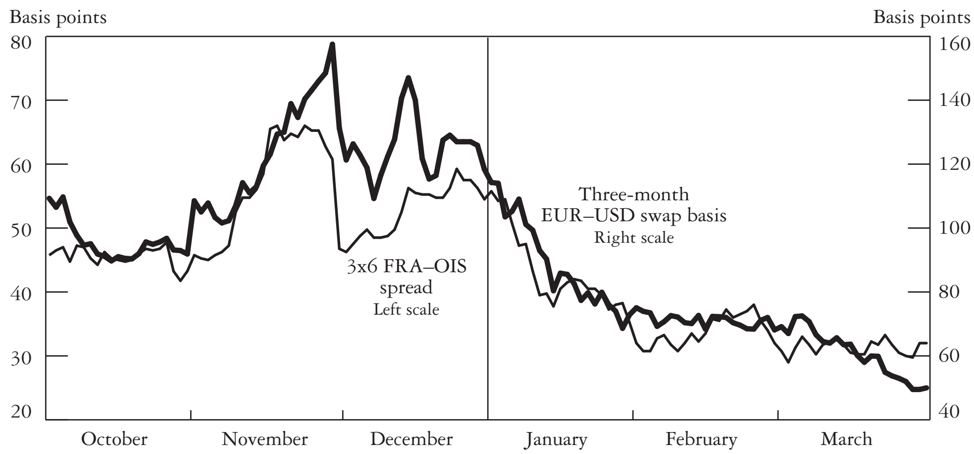
VIX INDEX



Source: Bloomberg L.P.

Note: VIX is the Chicago Board Options Exchange Market Volatility Index.

Chart 6
MEASURES OF FUNDING CONDITIONS IMPROVED



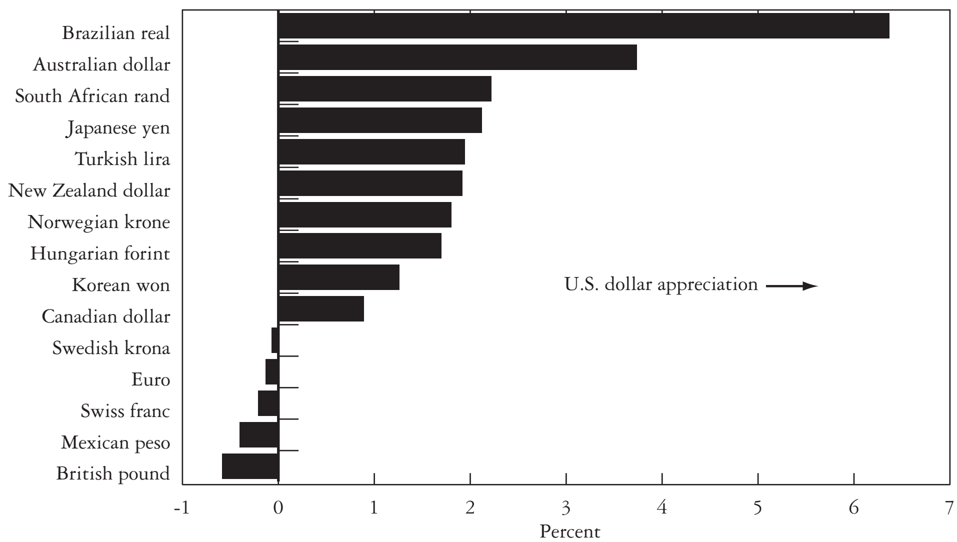
Source: Bloomberg L.P.

Notes: The 3x6 FRA–OIS spread is the three-month forward rate agreement–overnight index swap spread, three months forward. The three-month EUR–USD swap basis is the three-month euro–U.S. dollar exchange rate swap basis.

Although the dollar depreciated over most of the period, it later reversed and appreciated somewhat during March, as market participants' views on the growth outlook for the United States relative to some other developed and emerging market economies shifted. Specifically, the U.S. labor data for February showed an increase in private payrolls that surpassed consensus expectations for the third straight month, while unemployment claims continued to decline. The incoming data contributed to an increase in longer-term yields in the United States relative to other countries, which supported the dollar.

Conversely, a perceived slowing in China's economy weighed on some commodity-sensitive and emerging market currencies. Specifically, the U.S. dollar appreciated 3.7 percent against the Australian dollar during March, as Australia is both a significant commodities exporter and key trading partner of China. Additionally, weaker labor data and associated expectations of increased policy accommodation from the Reserve Bank of Australia weighed on the Australian dollar. As for China's economic data, market participants focused on a record monthly trade deficit due to slower export growth and weaker-than-expected year-over-year industrial production and retail sales for the combined January-February period.

Chart 7
U.S. DOLLAR AGAINST SELECTED CURRENCIES
FROM FEBRUARY 29, 2012 TO MARCH 30, 2012



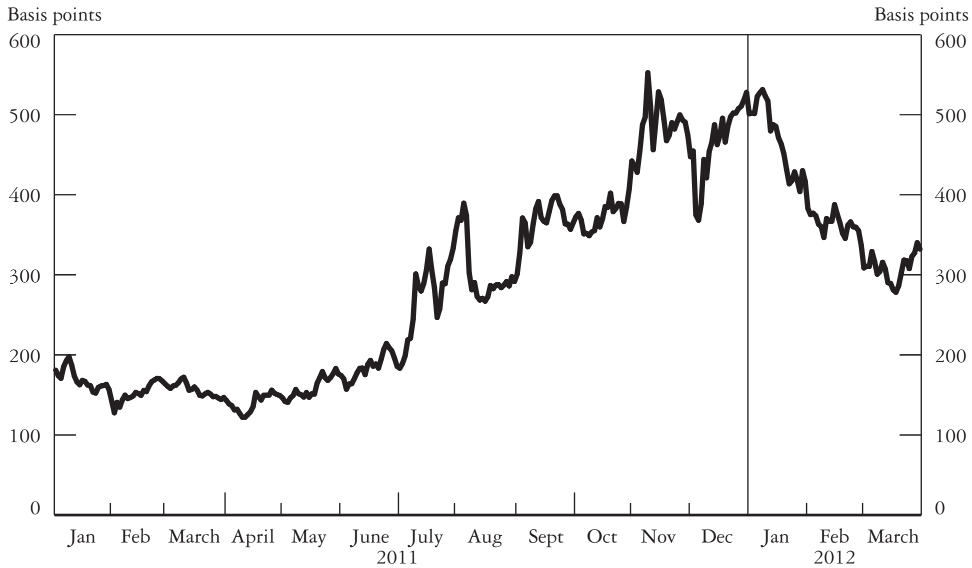
Source: Bloomberg L.P.

DOLLAR DEPRECIATES AGAINST THE EURO AS MARKET SENTIMENT IMPROVES FOLLOWING CENTRAL BANK POLICY ACTION

During the quarter, the dollar depreciated 2.8 percent against the euro, and one-month option-implied volatility in the currency pair declined to its lowest level since August 2008. The depreciation of the dollar against the euro was supported by the improvement in market sentiment that followed important central bank policy actions, including the anouncement in late November that the cost of central bank liquidity swap arrangements would be lowered and the European Central Bank's (ECB) announcement in late December that it would hold two three-year longer-term refinancing operations. These policy actions boosted broader market sentiment by helping to ease near-term liquidity and funding stresses.

The appreciation of the euro was reflective of the general financial asset performance in the region. During the quarter, the Italian benchmark ten-year government bond yield declined approximately 200 basis points and the Italy–Germany ten-year sovereign debt spread narrowed 196 basis points. Additionally, the Italian five-year credit-default swap level declined 106 basis points, while the Euro Stoxx Bank index increased 7.6 percent.

Chart 8
TEN-YEAR ITALIAN–GERMAN GOVERNMENT BOND SPREAD



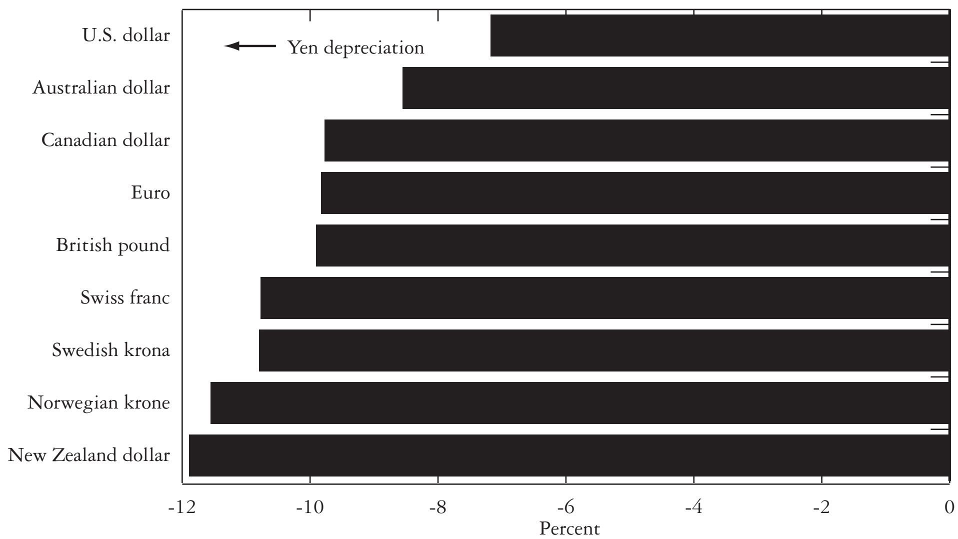
Source: Bloomberg L.P.

DOLLAR REACHES A TWELVE-MONTH HIGH AGAINST THE YEN

During the quarter, the Japanese yen depreciated significantly against major currencies, as the U.S. dollar appreciated 7.8 percent against the yen. The yen's depreciation appeared to reflect several factors, including policy measures by the Bank of Japan (BoJ), weaker-than-expected Japanese trade data, and shifts in interest rate differentials between the United States and Japan. On February 14, the BoJ unexpectedly announced notable monetary policy easing measures, including an increase to its asset purchase program and a change in policy language regarding its inflation goal. These measures were interpreted by many market participants as solidifying a greater commitment toward leaning against deflationary pressures. Japan's twelve-month rolling trade balance shifted into deficit in October and continued to widen in February. These factors contributed to a widening in interest differentials between the United States and Japan that further weighed on the yen. In particular, the two-year U.S.–Japanese government bond spread widened by 11 basis points, and the ten-year spread increased 33 basis points.

Chart 9

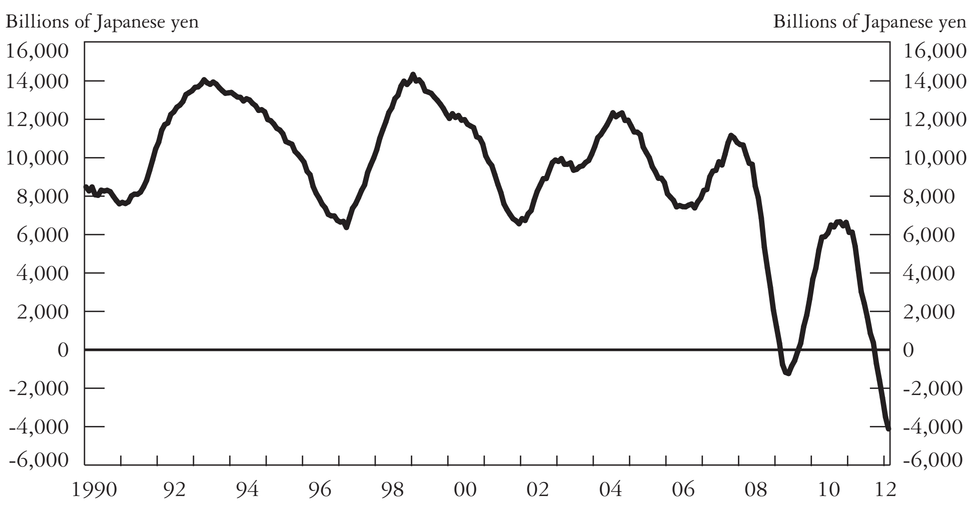
JAPANESE YEN AGAINST SELECTED CURRENCIES DURING FIRST QUARTER



Source: Bloomberg L.P.

Chart 10

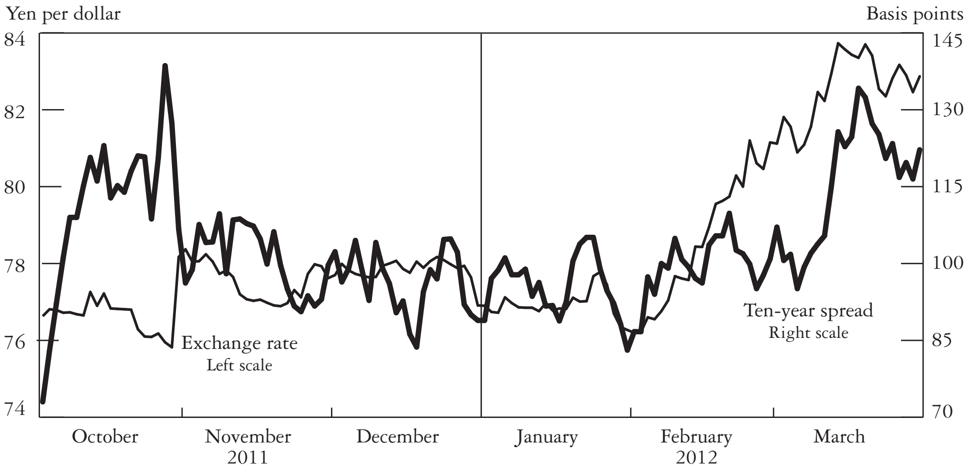
JAPANESE TRADE BALANCE, TWELVE-MONTH ROLLING SUM



Source: Japan Ministry of Finance; Bloomberg L.P.

Chart 11

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



Source: Bloomberg L.P.

MARKET PARTICIPANTS FOCUS ON DOLLAR–RENMINBI FIX

The Chinese renminbi depreciated modestly against the dollar during the first quarter, after having appreciated 4.7 percent against the dollar during 2011, raising some uncertainty among market participants about the forward path of the renminbi. Market participants noted that weaker-than-expected Chinese economic data and public comments from senior Chinese officials, suggesting that the renminbi was near equilibrium, were consistent with a slower pace of appreciation.

TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE HOLDINGS

The U.S. monetary authorities did not undertake any intervention operations during the quarter. As of March 31, the value of the U.S. Treasury's Exchange Stabilization Fund foreign-currency-denominated assets totaled $25.56 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled $25.58 billion also comprised of euro and yen holdings.

Dollar Liquidity Swap Arrangements with Foreign Central Banks

In the previous quarter, on November 30, 2011, the Federal Reserve, in coordination with the Bank of Canada (BoC), the Bank of England (BoE), the BoJ, the ECB, and the Swiss National Bank (SNB), agreed to reduce the rate charged on the dollar liquidity swap arrangements and to extend authorization of these swap arrangements through February 1, 2013. The rate charged on the dollar liquidity swap arrangements was reduced from the U.S. dollar overnight index swap (OIS) rate plus 100 basis points to the OIS rate plus 50 basis points. As of March 31, the BoJ had $13.47 billion outstanding, and the ECB had $33.02 billion outstanding. The BoC, BoE, and SNB did not have any outstanding swaps at the end of the quarter.

In addition, as a contingency measure, these central banks agreed to establish bilateral liquidity swap arrangements so that each central bank could provide liquidity, if necessary, in any of the respective currencies. Those agreements also terminate on February 1, 2013. As of March 31, 2012, the Federal Reserve has not utilized any of these reciprocal swap arrangements with foreign central banks.

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. To the greatest extent practicable, the investments are split evenly between the System Open Market Account and the Exchange Stabilization Fund. A significant portion of the U.S. monetary authorities' foreign exchange reserves is invested on an outright basis in German, French, and Japanese government securities. Another portion is invested in euro-denominated repurchase agreements, under which 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. Foreign currency reserves are also invested at the Bank for International Settlements and in facilities at other official institutions. As of March 31, direct holdings of foreign government securities totaled $24.44 billion, split evenly between the Federal Reserve System Open Market Account and the U.S. Treasury Exchange Stabilization Fund. Foreign government securities held under repurchase agreements totaled $4.99 billion on March 31, 2012.

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, 2011[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, 2012[a]
Federal Reserve System						
Open Market Account (SOMA)						
Euro	13,887	0	33	0	387	14,307
Japanese yen	12,063	0	6	0	(795)	11,275
Total	25,950	0	40	0	(408)	25,582

		Change in Balances by Source				
	Carrying Value, December 31, 2011[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, 2012[a]
U.S. Treasury Exchange						
Stabilization Fund (ESF)						
Euro	13,864	0	33	0	387	14,284
Japanese yen	12,063	0	6	0	(795)	11,275
Total	25,928	0	40	0	(409)	25,559

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, repayments, and warehousing.

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

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

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

Table 2

BREAKDOWN OF FOREIGN RESERVE ASSETS HELD

Carrying Value in Millions of U.S. Dollars, as of March 31, 2012

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets	**14,284.3**	**14,307.2**
Cash held on deposit at official institutions	7,115.8	7,138.7
Marketable securities held under repurchase agreements[b]	2,496.6	2,496.6
Marketable securities held outright	4,671.9	4,671.9
German government securities	1,971.0	1,971.0
French government securities	2,701.0	2,701.0
Yen-denominated assets	**11,274.7**	**11,274.6**
Cash held on deposit at official institutions	3,726.5	3,726.5
Marketable securities held outright	7,548.2	7,548.2
Reciprocal currency arrangements		
Euro–denominated assets:		**33,015.6**
Other assets[c]		33,015.6
Japanese-yen–denominated assets:		**13,466.0**
Other assets[c]		13,466.0
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

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 9.5 months; the yen SOMA and ESF portfolios both had Macaulay durations of 11.8 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, and the Bank of England.

Table 3

RECIPROCAL CURRENCY ARRANGEMENTS

Millions of U.S. Dollars

Institution	Amount of Facility	Outstanding as of March 31, 2012
	Federal Reserve System Open Market Account (SOMA)	
Bank of Canada	2,000	0
Banco de México	3,000	0
European Central Bank[a]	Unlimited	33,016
Swiss National Bank[a]	Unlimited	0
Bank of Japan[a]	Unlimited	13,466
Bank of Canada[a]	30,000	0
Bank of England[a]	Unlimited	0
	Unlimited	46,482
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Banco de México	3,000	0
Total	3,000	0

[a] Temporary swap arrangement.