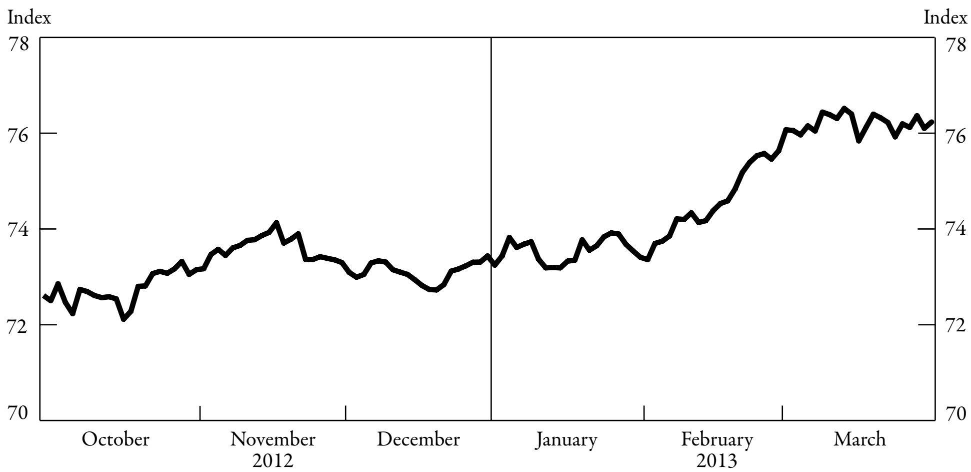
TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

January–March 2013

During the first quarter, the U.S. dollar's nominal trade-weighted exchange value increased 3.8 percent as measured by the Federal Reserve Board's major currencies index. The dollar appreciated against most major currencies, including 8.6 percent against the Japanese yen and 2.9 percent against the euro. The dollar's broad appreciation occurred amid improving domestic economic indicators and increasing expectations for additional monetary policy accommodation by foreign central banks. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

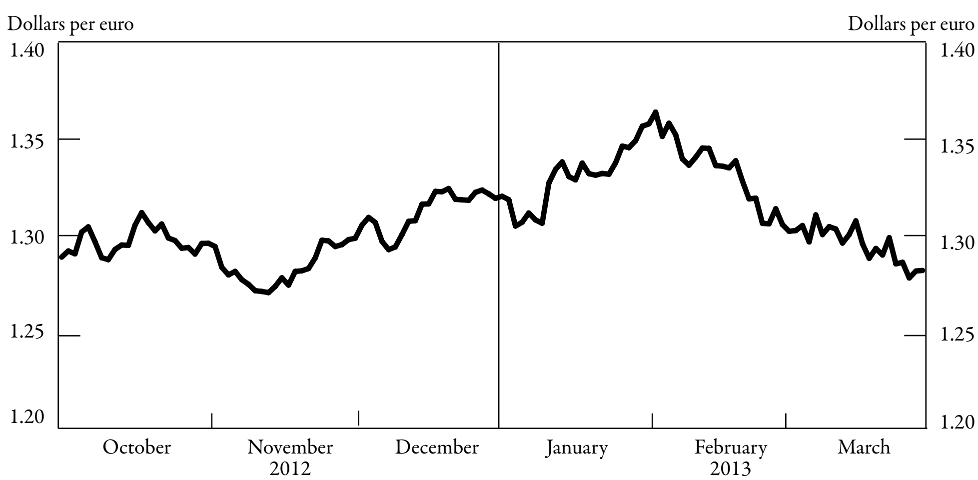
This report, presented by Simon Potter, Executive Vice President, Federal Reserve Bank of New York, and Manager of the System Open Market Account, describes the foreign exchange operations of the U.S. Department of the Treasury and the Federal Reserve System for the period from January through March 2013. Dan Reichgott was primarily responsible for preparation of the report.

Chart 1
TRADE-WEIGHTED U.S. DOLLAR



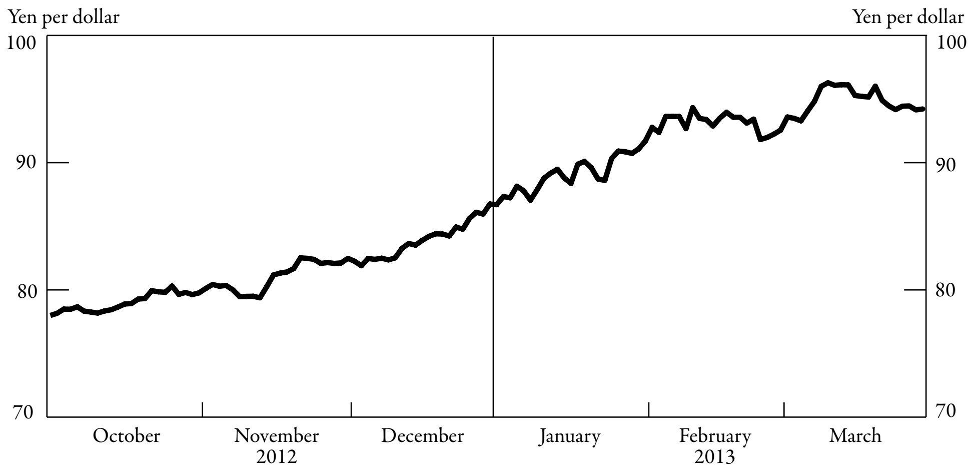
Sources: Board of Governors of the Federal Reserve System; Bloomberg L.P.

Chart 2
EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3
U.S. DOLLAR–YEN EXCHANGE RATE

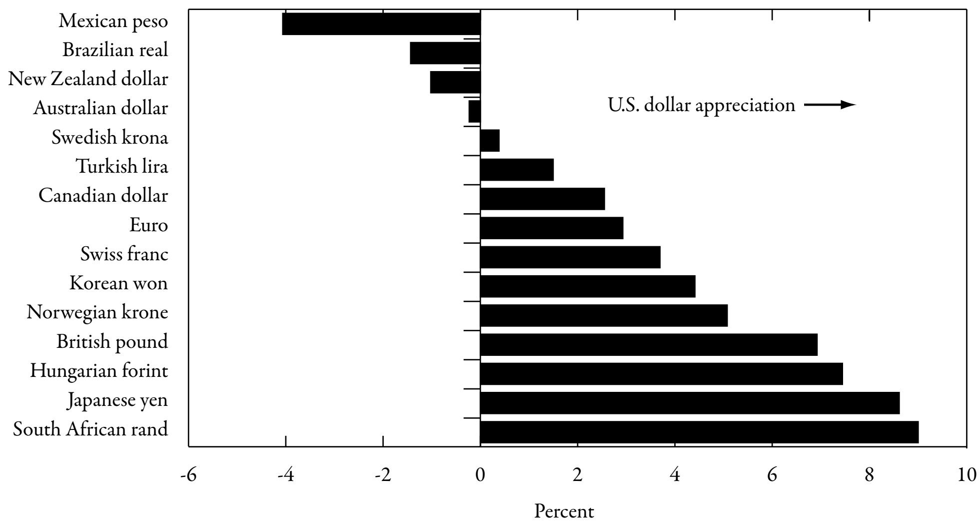


Source: Bloomberg L.P.

U.S. DOLLAR APPRECIATES AMID IMPROVING U.S. DATA AND EXPECTATIONS OF MONETARY POLICY ACCOMMODATION BY OTHER CENTRAL BANKS

During the first quarter, the trade-weighted U.S. dollar appreciated 3.8 percent to reach its highest level since August 2010. The dollar's appreciation was aided by stronger U.S. economic data during the period. Specifically, market participants focused on improved labor market indicators, especially given the introduction of a quantitative employment-related threshold by the Federal Open Market Committee late last year. The monetary policy outlooks of other major central banks also contributed to the dollar's appreciation. Weaker foreign economic data, notably for the United Kingdom and euro area, raised expectations for continued accommodative monetary policy stances by the Bank of England (BoE) and the European Central Bank (ECB), respectively. In Japan as well, expectations continued to build for additional policy accommodation following Prime Minister Shinzo Abe's election in late 2012. These global policy biases helped support the dollar against other major currencies during the period.

Chart 4
U.S. DOLLAR AGAINST SELECTED CURRENCIES DURING FIRST QUARTER



Source: Bloomberg L.P.

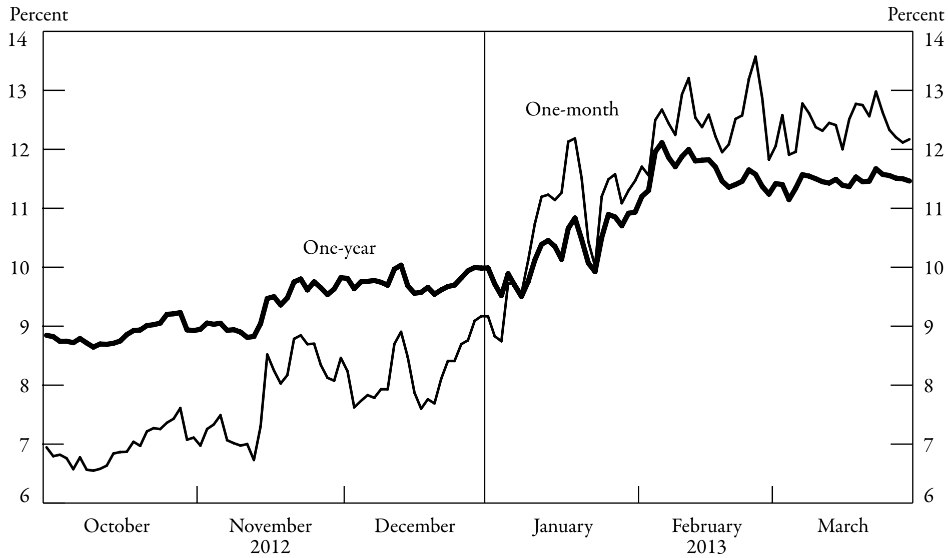
U.S. DOLLAR APPRECIATES AGAINST THE YEN AS EXPECTATIONS FOR JAPANESE POLICY ACCOMMODATION INCREASE

Following an 11.3 percent appreciation against the Japanese yen in the fourth quarter of last year, the U.S. dollar appreciated another 8.6 percent against the yen during the first quarter. The yen's protracted depreciation reflected expectations that Japan would pursue more expansionary monetary and fiscal policies. These expectations were solidified by the election of Prime Minster Abe late last year and the Bank of Japan's (BoJ) implementation of an explicit 2 percent inflation target in January.

Expectations for policy easing in Japan, combined with a relatively stronger U.S. economic outlook, led to a widening in U.S. and Japanese yield spreads that contributed to the dollar's appreciation against the yen. Uncertainty surrounding the monetary policy outlook for Japan prompted an increase in implied volatility in the dollar–yen currency pair. One-month and one-year measures of implied volatility continued to rise during the period, ending the quarter at 12.2 and 11.5 percent, respectively, somewhat reversing the declining trend of the past few years.

Chart 5

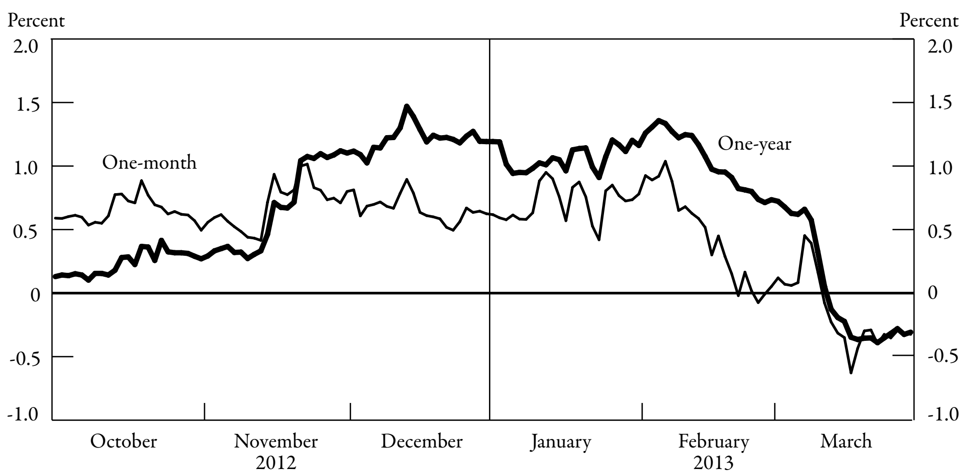
U.S. DOLLAR–JAPANESE YEN AT-THE-MONEY OPTION-IMPLIED VOLATILITY



Source: Bloomberg L.P.

Chart 6

U.S. DOLLAR–JAPANESE YEN 25-DELTA RISK REVERSALS



Source: Bloomberg L.P.

U.S. DOLLAR APPRECIATES AGAINST THE EURO AS POLICY EXPECTATIONS AND RISK SENTIMENT DRIVE INTRAQUARTER VOLATILITY

The U.S. dollar appreciated 2.9 percent against the euro during the first quarter amid a weakening euro-area economic growth outlook, increased expectations for further policy accommodation by the ECB, and political uncertainty in Italy and Cyprus. All of these factors contributed to a widening of spreads between U.S. and German debt yields, although there was some intraquarter volatility.

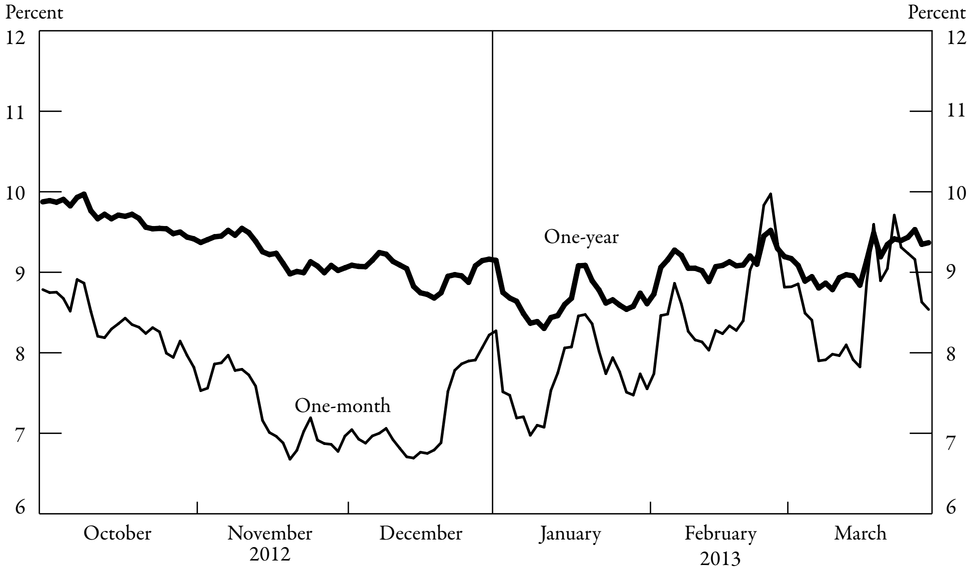
The euro appreciated early in the quarter following a higher-than-expected repayment of the ECB's three-year longer-term refinancing operation, which was perceived as signaling increased confidence in the financial stability of the euro area. Later in the quarter, however, weakening economic data, including manufacturing and service sector data, weighed on the euro as expectations increased for further accommodation by the ECB. Market participants were particularly focused on ECB President Mario Draghi's discussion of downside risks to inflation following the ECB's February Governing Council policy meeting as reinforcing the more accommodative bias.

The euro's weakness during the quarter also reflected rising political uncertainty in Italy and Cyprus. The inconclusive outcome of Italian parliamentary elections in late February raised concerns about Italy's fiscal consolidation and structural reform efforts. In March, events in Cyprus weighed on the euro as market participants focused on the precedents set by bailing in senior creditors, including large uninsured depositors, and the introduction of capital controls.

These developments led to notable spikes in measures of implied volatility for the euro–dollar currency pair. Additionally, risk reversals turned sharply negative during the quarter, suggesting increased demand for protection against further euro depreciation. By late March, the euro had depreciated to below $1.28, as rate differentials between the United States and Germany widened to reach three-month highs.

Chart 7

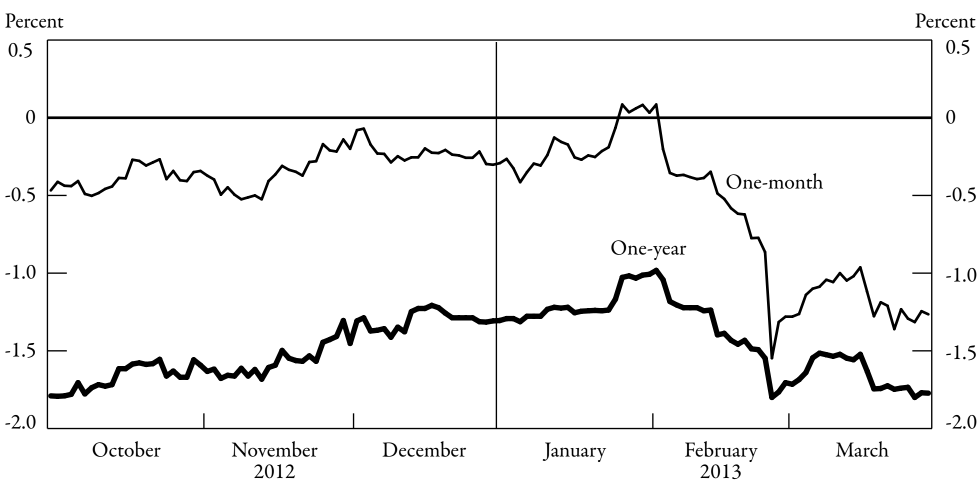
EURO–U.S. DOLLAR AT-THE-MONEY OPTION-IMPLIED VOLATILITY



Source: Bloomberg L.P.

Chart 8

EURO–U.S. DOLLAR 25-DELTA RISK REVERSALS



Source: Bloomberg L.P.

U.S. DOLLAR APPRECIATES AGAINST THE POUND AMID WEAK U.K. DATA AND INCREASED EXPECTATIONS FOR FURTHER MONETARY EASING

The U.S. dollar appreciated 7.0 percent against the British pound during the first quarter, as weaker-than-expected U.K. economic data, sovereign rating actions, and renewed expectations for further accommodation from the BoE weighed on the pound. The pound traded at $1.49 in late March, its weakest level against the dollar since June 2010.

Market participants pointed to weak GDP data and a continued deterioration in the trade deficit as indicators of weak economic conditions in the United Kingdom. Credit rating agencies took action on the United Kingdom's sovereign rating during the quarter, with Moody's downgrading the country to Aa1 from Aaa and Fitch placing the U.K. AAA-rating on negative watch. Standard & Poor's rating for the United Kingdom remained unchanged at AAA during the quarter. Expectations increased for the BoE to enact further easing policies after three members of the Monetary Policy Committee voted for additional asset purchases at the February Committee meeting, an increase from one member at the prior meeting. Market participants also noted that the content of the Quarterly Inflation Report in February and the changes to the BoE's remit[1] in March signaled a greater tolerance of above-target inflation in the near and medium terms.

Chart 9

BRITISH POUND–U.S. DOLLAR EXCHANGE RATE

Source: Bloomberg L.P.

[1] The most prominent changes included advising the BoE to communicate the time period required to bring inflation back to the target and acknowledging the use of unconventional monetary policy tools to achieve the mandate.

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 $23.72 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled $23.74 billion, also comprised of euro and yen holdings.

Liquidity Swap Arrangements with Foreign Central Banks

On December 13, 2012, the Federal Reserve, in coordination with the Bank of Canada (BoC), the BoE, the BoJ, the ECB, and the Swiss National Bank (SNB), agreed to extend the authorization of the U.S. dollar and foreign currency liquidity swap arrangements through February 1, 2014. The rate on the dollar liquidity swap arrangements was unchanged at the U.S. dollar overnight indexed swap rate plus 50 basis points. As of March 31, the ECB had $8.1 billion outstanding under the U.S. dollar liquidity swaps, of which $7.6 billion was in three-month tenors and $0.5 billion was in a one-week-tenor transaction. The BoC, BoE, BoJ, and SNB had no outstanding swaps at the end of the quarter.

Foreign Exchange Reserve Holdings

The U.S. monetary authorities invest their foreign currency reserves in a variety of instruments that yield market 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. The amount of euro-denominated reserves held on deposit at official institutions remained elevated in the first quarter, given extremely low rates in euro-denominated money markets, although the amount of yen-denominated deposits has remained fairly steady over recent quarters. A smaller portion of the reserves is currently 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 $22.29 billion and foreign government securities held under repurchase agreements totaled $2.18 billion.

Table 1

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

Millions of U.S. Dollars

	Carrying Value, December 31, 2012[a]	Changes in Balances by Source: 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, 2013[a]
Federal Reserve System Open Market Account (SOMA)						
Euro	14,233	0	23	0	(400)	13,855
Japanese yen	10,740	0	4	0	(858)	9,886
Total	24,972	0	27	0	(1,258)	23,741

	Carrying Value, December 31, 2012[a]	Changes in Balances by Source: 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, 2013[a]
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	14,210	0	23	0	(400)	13,833
Japanese yen	10,740	0	4	0	(858)	9,886
Total	24,950	0	27	0	(1,258)	23,719

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, 2013

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets	**13,833.0**	**13,855.0**
Cash held on deposit at official institutions	8,217.9	8,240.0
Marketable securities held under repurchase agreements[b]	1,089.4	1,089.4
Marketable securities held outright	4,525.7	4,525.7
German government securities	2,247.1	2,247.1
French government securities	2,278.5	2,278.5
Japanese-yen–denominated assets	**9,886.1**	**9,886.1**
Cash held on deposit at official institutions	3,268.9	3,268.9
Marketable securities held outright	6,617.2	6,617.2
Reciprocal currency arrangements		
Euro-denominated assets		**8,056**
Other assets[c]		8,056
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

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

[a] As of March 31, the euro SOMA and ESF portfolios had Macaulay durations of 9.0 and 9.2 months, respectively; 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, 2013
	Federal Reserve System Open Market Account (SOMA)	
Bank of Canada	2,000	0
Banco de México	3,000	0
European Central Bank[a]	Unlimited	8,056
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
	Unlimited	8,056
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Banco de México	3,000	0
	3,000	0

[a]Temporary swap arrangement.