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# TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

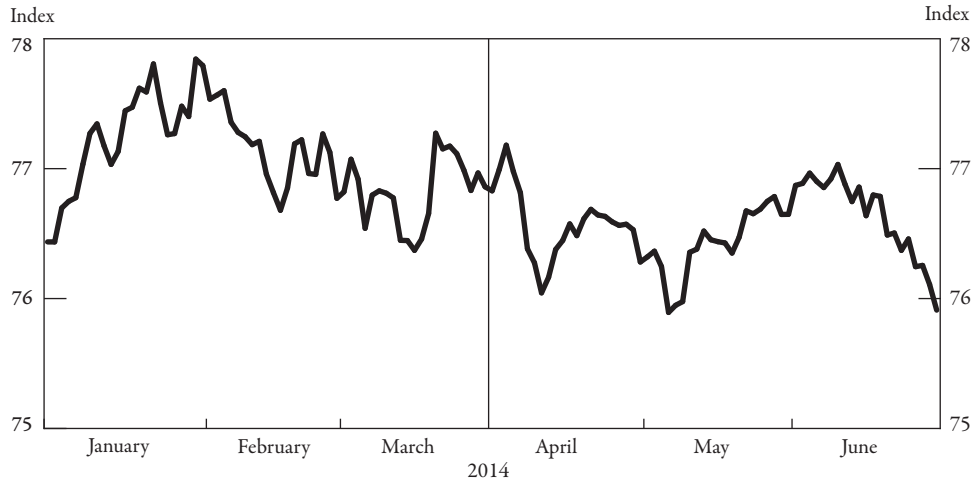
*April–June 2014*

During the second quarter, the U.S. dollar’s nominal trade-weighted exchange value decreased 1.2 percent as measured by the Federal Reserve Board’s major currencies index. Against individual currencies, the dollar’s performance was mixed. The dollar appreciated 0.6 percent against the euro in anticipation of further European Central Bank (ECB) policy accommodation, which was realized at the June 5 Governing Council meeting. The dollar depreciated 1.8 percent against the Japanese yen, as expectations for further monetary easing by the Bank of Japan (BoJ) were pushed back. 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 April through June 2014. Dan Reichgott was primarily responsible for preparation of the report.*

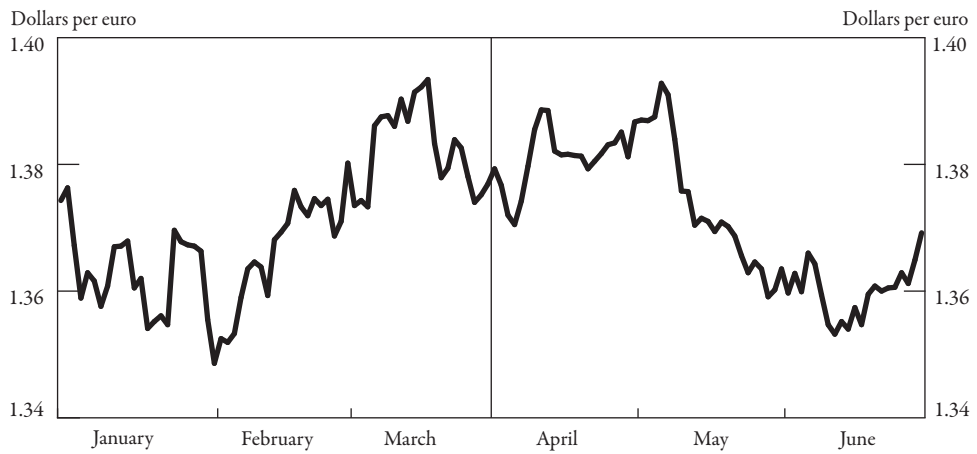
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*Chart 1*  
TRADE-WEIGHTED U.S. DOLLAR



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

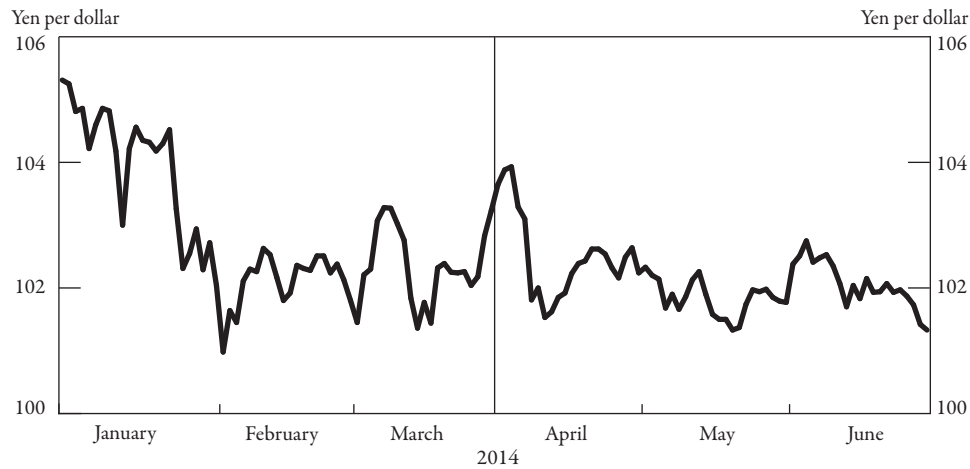
*Chart 2*  
EURO-U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

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Chart 3  
U.S. DOLLAR–YEN EXCHANGE RATE



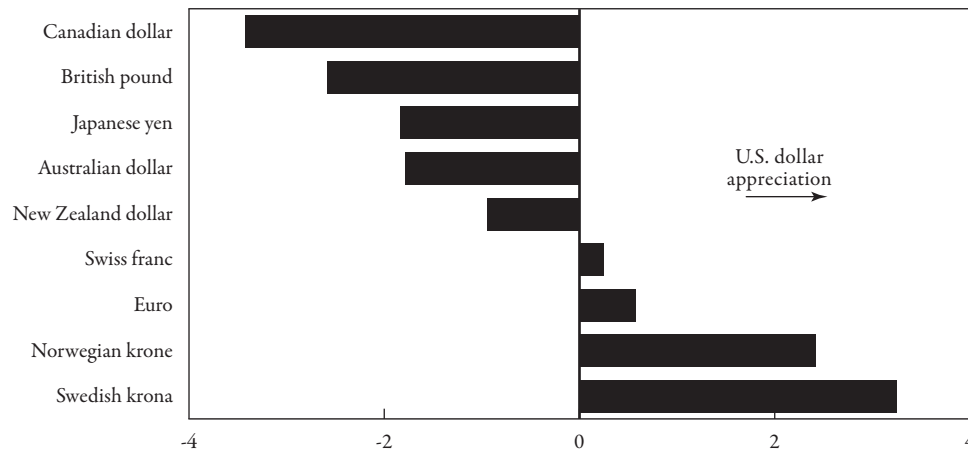
Source: Bloomberg L.P.

### TRADE-WEIGHTED U.S. DOLLAR DECLINES WITH LONGER-TERM TREASURY YIELDS

During the second quarter, the trade-weighted U.S. dollar depreciated 1.2 percent, consistent with the decline in longer-term U.S. Treasury yields—a continuation of a trend seen since the beginning of the year. A number of factors may be responsible for the decline in yields, including expectations for both lower growth and policy rates in the long term, a decline in inflation risk premiums, and reduced interest rate uncertainty. Releases of lower-than-expected first-quarter GDP estimates reinforced these factors, and although market participants had partially discounted the data's impact on growth expectations due to temporary weather effects, Treasury yields and the trade-weighted U.S. dollar index declined notably following the data releases. Other data releases during the period were interpreted more positively, however, including labor market data that showed continued strength in monthly job growth. Federal Open Market Committee (FOMC) communications during the quarter were largely interpreted as suggesting continued monetary policy accommodation, consistent with the declines in implied rates on Eurodollar futures across tenors. Market participants interpreted statements made at the June 18 FOMC press conference as slightly more accommodative than expected, owing to perceptions that Federal Reserve Chair Janet Yellen viewed the recent firming in inflation data as transitory, thus providing further downward pressure on the dollar.

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*Chart 4*  
U.S. DOLLAR PERFORMANCE AGAINST SELECTED  
CURRENCIES DURING SECOND QUARTER



Source: Bloomberg L.P.

#### DIVERGENT MONETARY POLICY EXPECTATIONS AMONG DEVELOPED MARKETS DRIVE CURRENCY PERFORMANCE

The U.S. dollar depreciated 3.4 percent against the Canadian dollar, 2.6 percent against the British pound, and 1.8 percent against the Japanese yen, as monetary policy stances in each respective economy were perceived as becoming incrementally less accommodative than that of the United States. In Canada, increasing levels of inflation lowered expectations of additional near-term monetary policy accommodation by the Bank of Canada (BoC). Consistently, the pricing of near-term rate cuts declined according to both overnight index swap and banker acceptance futures markets. In the United Kingdom, continued strength in economic data supported the British pound, as did comments from Bank of England (BoE) Governor Mark Carney that market participants interpreted as signaling that rate increases could occur sooner than had been anticipated. In Japan, survey-based expectations for when the BoJ may provide additional accommodation were pushed back, reflecting increasing inflation and comments from BoJ Governor Haruhiko Kuroda that market participants interpreted as suggesting that the central bank could tolerate a moderate deceleration in inflation without hastening to provide a policy response.

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Higher-yielding developed market currencies, such as the Australian dollar and the New Zealand dollar, also appreciated against the U.S. dollar during the second quarter, supported by respective monetary policy conditions and low market volatility. The Reserve Bank of Australia's rate outlook remained neutral after shifting from an accommodative stance in the first quarter, and the Reserve Bank of New Zealand continued to tighten monetary policy at each of its two meetings in the second quarter.

In contrast, the ECB took a more accommodative policy stance during the second quarter. The U.S. dollar appreciated 0.6 percent against the euro as expectations for further policy action by the ECB increased, particularly following the Governing Council's May 8 meeting, which market participants interpreted as signaling that additional accommodation would likely be forthcoming in light of continued low euro-area inflation. These expectations were eventually realized at the subsequent policy meeting on June 5, when the ECB announced a negative interest rate on its deposit facility, targeted longer-term refinancing operations, a suspension of sterilization of prior purchases of euro-area sovereign debt, an extension of its fixed-rate full allotment operations, and preparation for potential purchases of asset-backed securities. ECB officials also highlighted ongoing euro strength as posing a challenge to price stability throughout the quarter, weighing further on the currency. The euro's depreciation against the U.S. dollar was directionally consistent with the decline in two- and ten-year German sovereign yields, which decreased by 17 basis points and 13 basis points, respectively, relative to their U.S. equivalents. Non-commercial positioning data from the Commodity Futures Trading Commission indicated a sharp decline in net long euro futures and options positions immediately following the Governing Council's May 8 meeting, when the likelihood of further accommodation became more evident.

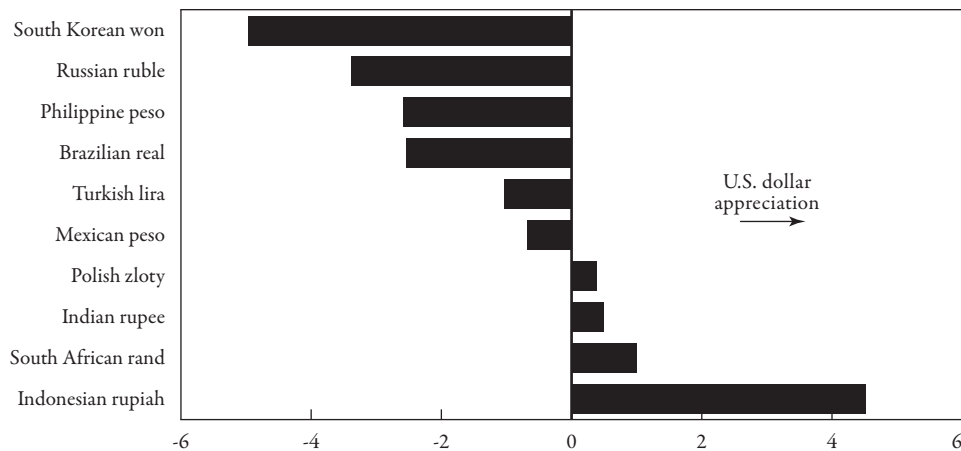
Other European currencies also depreciated in line with the euro, including the Swedish krona, the Norwegian krone, and the Swiss franc. In Sweden, inflation remained at very low rates, including negative levels, while in Norway, Norges Bank revised downward its forecast for the policy rate path. In Switzerland, the Swiss franc depreciated only slightly against the dollar as the Swiss National Bank (SNB) maintained its accommodative policy outlook amid continued weak inflationary pressures. The currency was also little changed against the euro, as the SNB maintained its 1.20 Swiss franc per euro floor.

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## FURTHER DECLINES IN FOREIGN EXCHANGE VOLATILITY SUPPORT EMERGING MARKET CURRENCIES

Global macroeconomic conditions were largely supportive of emerging market currencies during the second quarter. Monetary policies remained accommodative in the United States and the euro area, contributing to subdued market volatility. Indeed, measures of realized and implied foreign exchange volatility declined to record lows, supporting portfolio flows into higher yielding emerging market assets. The growth outlook for China also improved incrementally, which market participants viewed as reducing the risks of adverse economic spillovers into other emerging markets. Against this backdrop, Asian currencies such as the Korean won and Philippine peso appreciated against the dollar, supported by increased portfolio inflows, while the Russian ruble retraced some of the sharp depreciation seen in the first quarter when regional political tensions were in sharper focus. In contrast, local developments weighed on the Indonesian rupiah, which depreciated 4.3 percent owing to political uncertainty ahead of elections and weak trade data.

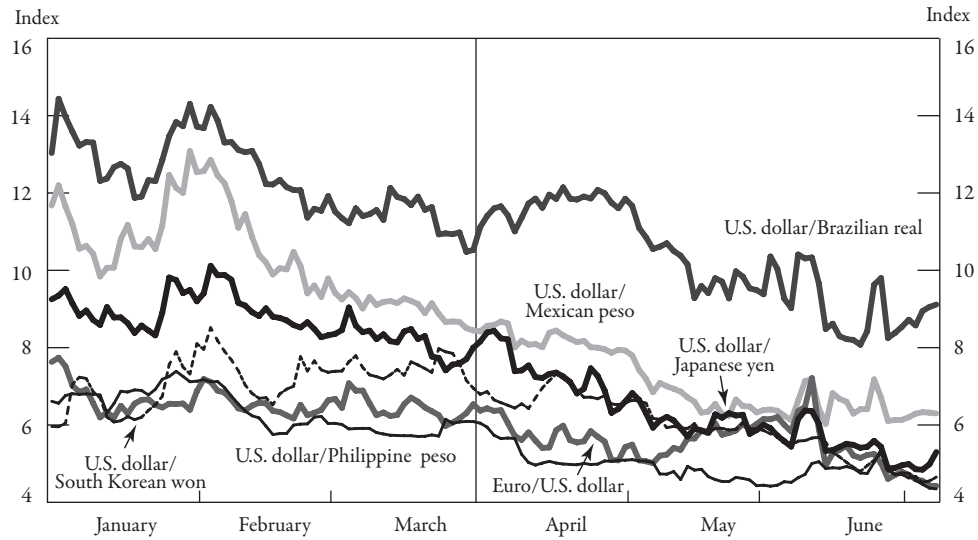
*Chart 5*  
U.S. DOLLAR PERFORMANCE AGAINST EMERGING MARKET  
CURRENCIES DURING SECOND QUARTER



Source: Bloomberg L.P.

Chart 6

ONE-MONTH AT-THE-MONEY OPTION-IMPLIED VOLATILITY

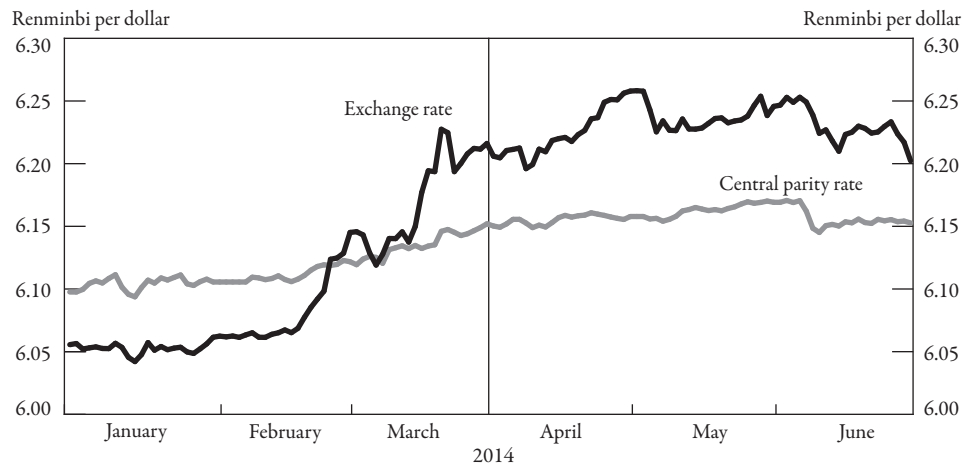


Source: Bloomberg L.P.

RENMINBI APPRECIATES AGAINST THE U.S. DOLLAR WHILE CENTRAL PARITY RATE IS LITTLE CHANGED

The Chinese renminbi appreciated 0.2 percent against the U.S. dollar during the second quarter, while the central parity rate set by the People's Bank of China was largely unchanged over the same period. This followed the sharp 2.6 percent depreciation of the renminbi against the dollar during the first quarter, which was largely viewed by market participants as an effort by Chinese authorities to introduce greater two-way risk in the exchange rate and stem capital inflows. Similarly, measures of short-dated implied volatility in the currency pair declined in the second quarter after increasing sharply following the introduction of greater two-way risk in the first quarter.

Chart 7  
 U.S. DOLLAR–CHINESE RENMINBI EXCHANGE RATE VERSUS  
 CENTRAL PARITY RATE



Source: Bloomberg L.P.

#### TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE HOLDINGS

The U.S. monetary authorities did not undertake any intervention operations during the quarter. As of June 30, the value of the U.S. Treasury's Exchange Stabilization Fund foreign-currency-denominated assets totaled \$24.08 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled \$24.11 billion, also comprised of euro and yen holdings.

#### *Liquidity Swap Arrangements with Foreign Central Banks*

As of June 30, the ECB had \$124 million outstanding under the U.S. dollar liquidity swaps, all in the eighty-four-day tenor transaction. The BoC, BoE, BoJ, and SNB did not have any outstanding swaps at the end of the quarter. The final eighty-four-day operation was held at the end of April 2014. In addition, the ECB, BoE, BoJ, and SNB announced on June 17 that they would continue to offer one-week U.S. dollar liquidity-providing operations after July 31 until further notice.



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*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 typically invested on an outright basis in German, French, and Japanese government securities. A smaller portion of the reserves is typically invested in euro-denominated repurchase agreements, under which the U.S. monetary authorities may 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 June 30, direct holdings of foreign government securities totaled \$22.01 billion. In addition, foreign government securities held under repurchase agreements totaled \$1.40 billion, a decrease from \$5.22 billion at the end of the first quarter, while cash held in euro-denominated deposits at official institutions totaled \$18.69 billion, an increase from \$14.94 billion. This shift in the portfolio occurred amid very low or negative rates across money market instruments in the second quarter following the ECB's June 5 decision to reduce the main refinancing and deposit rates to 0.15 percent and -0.10 percent, respectively.

Table 1

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

Millions of U.S. Dollars

	Changes in Balances by Source					Carrying Value, June 30, 2014 <sup>a</sup>
	Carrying Value, March 31, 2014 <sup>a</sup>	Net Purchases and Sales <sup>b</sup>	Investment Earnings <sup>c</sup>	Realized Gains/Losses on Sales <sup>d</sup>	Unrealized Gains/ Losses on Foreign Currency Revaluation <sup>e</sup>	
<b>Federal Reserve System</b>						
<b>Open Market Account (SOMA)</b>						
Euro	14,974	0	18	0	(94)	14,899
Japanese yen	9,052	0	3	0	152	9,207
Total	24,027	0	21	0	58	24,106

	Changes in Balances by Source					Carrying Value, June 30, 2014 <sup>a</sup>
	Carrying Value, March 31, 2014 <sup>a</sup>	Net Purchases and Sales <sup>b</sup>	Investment Earnings <sup>c</sup>	Realized Gains/Losses on Sales <sup>d</sup>	Unrealized Gains/ Losses on Foreign Currency Revaluation <sup>e</sup>	
<b>U.S. Treasury Exchange</b>						
<b>Stabilization Fund (ESF)</b>						
Euro	14,951	0	18	0	(94)	14,875
Japanese yen	9,052	0	3	0	152	9,207
Total	24,003	0	21	0	58	24,082

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

<sup>a</sup> Carrying value of the reserve asset position includes interest accrued on foreign currency, which is based on the "day of" accrual method.

<sup>b</sup> Net purchases and sales include foreign currency purchases related to official activity, repayments, and warehousing.

<sup>c</sup> Investment earnings include accrued interest and amortization on outright holdings.

<sup>d</sup> Gains and losses on sales are calculated using average cost.

<sup>e</sup> 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 June 30, 2014

	U.S. Treasury Exchange Stabilization Fund (ESF) <sup>a</sup>	Federal Reserve System Open Market Account (SOMA) <sup>a</sup>
<b>Euro-denominated assets</b>	<b>14,875.3</b>	<b>14,898.8</b>
Cash held on deposit at official institutions	9,334.5	9,358.0
Marketable securities held under repurchase agreements <sup>b</sup>	702.3	702.3
Marketable securities held outright	4,838.5	4,838.5
German government securities	2,407.8	2,407.8
French government securities	2,430.7	2,430.7
<b>Japanese-yen-denominated assets</b>	<b>9,207.2</b>	<b>9,207.1</b>
Cash held on deposit at official institutions	3,042.9	3,042.9
Marketable securities held outright	6,164.3	6,164.3
<b>Reciprocal currency arrangements</b>		
European Central Bank <sup>c</sup>		124
Bank of Japan <sup>c</sup>		0
Swiss National Bank <sup>c</sup>		0
Bank of Canada <sup>c</sup>		0
Bank of England <sup>c</sup>		0

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

<sup>a</sup> As of June 30, the euro SOMA and ESF portfolios both had Macaulay durations of 10.7 months; the yen SOMA and ESF portfolios both had Macaulay durations of 11.6 months.

<sup>b</sup> Sovereign debt obligations of Belgium, France, Germany, Italy, the Netherlands, and Spain are currently eligible collateral for reverse repo transactions.

<sup>c</sup> 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 June 30, 2014
<u>Federal Reserve System Open Market Account (SOMA)</u>		
Bank of Canada	2,000	0
Banco de México	3,000	0
European Central Bank	Unlimited	124
Swiss National Bank	Unlimited	0
Bank of Japan	Unlimited	0
Bank of Canada	Unlimited	0
Bank of England	Unlimited	0
	<u>Unlimited</u>	<u>124</u>
<u>U.S. Treasury Exchange Stabilization Fund (ESF)</u>		
Banco de México	3,000	0
	<u>3,000</u>	<u>0</u>