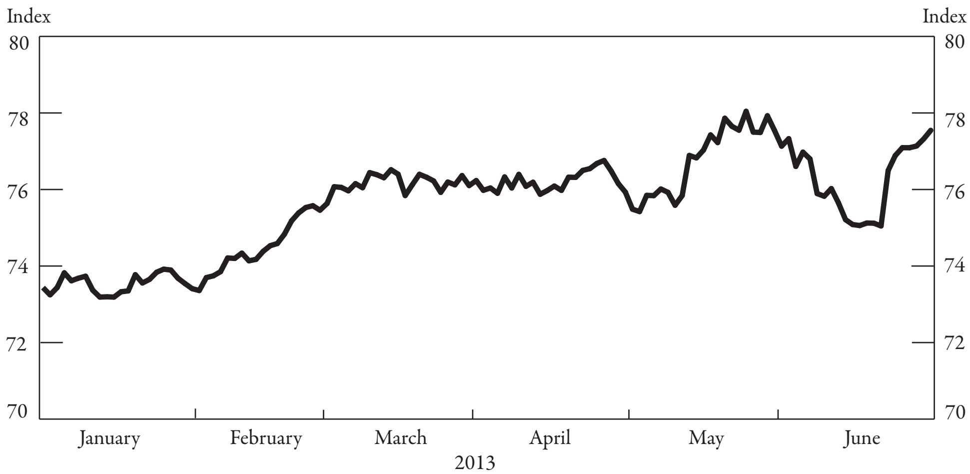
TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

April–June 2013

During the second quarter, the U.S. dollar's nominal trade-weighted exchange value increased 1.7 percent as measured by the Federal Reserve Board's major currencies index. The dollar appreciated against most major currencies, including 5.2 percent against the Japanese yen and as much as 14.0 percent against emerging market and cyclically sensitive currencies. However, the dollar depreciated 1.5 percent against the euro. The dollar's broad appreciation occurred amid improving U.S. economic data and an emerging expectation that the Federal Reserve could begin to reduce the pace of asset purchases before the end of the year. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

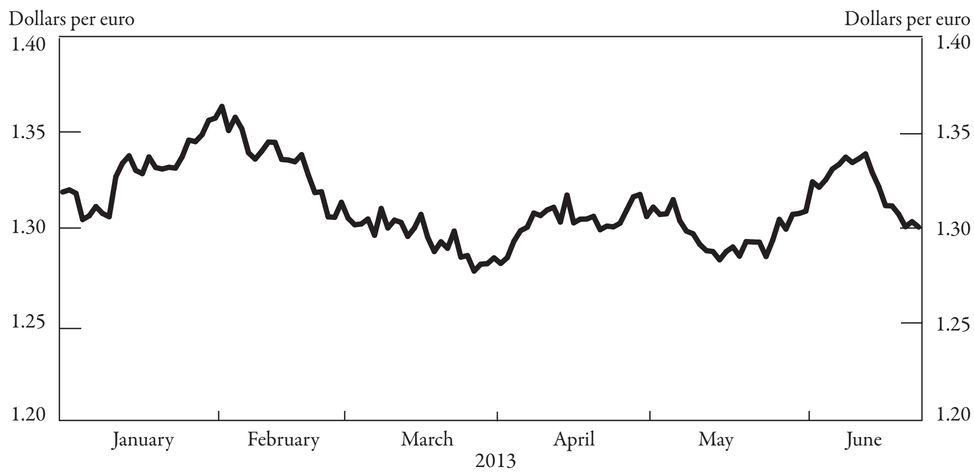
This report, presented by Simon Potter, Executive Vice President, Federal Reserve Bank of New York, and Manager of the System Open Market Account, describes the foreign exchange operations of the U.S. Department of the Treasury and the Federal Reserve System for the period from April through June 2013. 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.

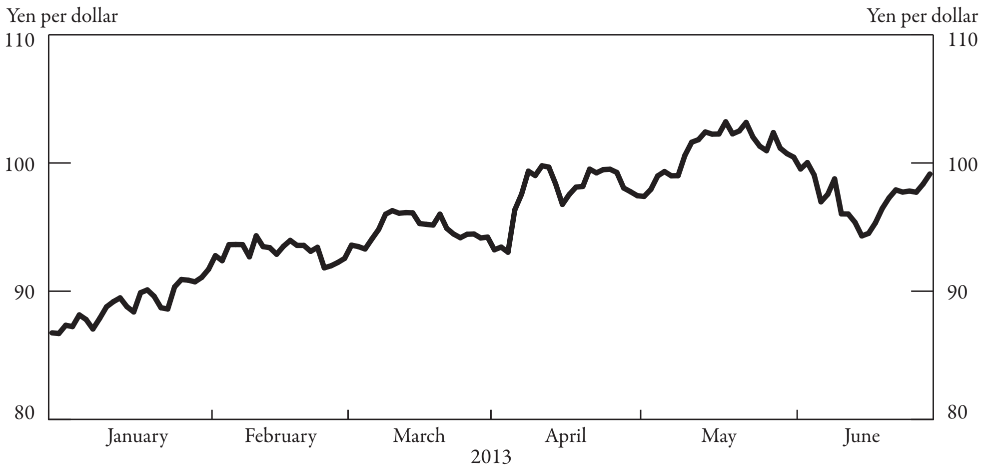
Chart 2
EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3

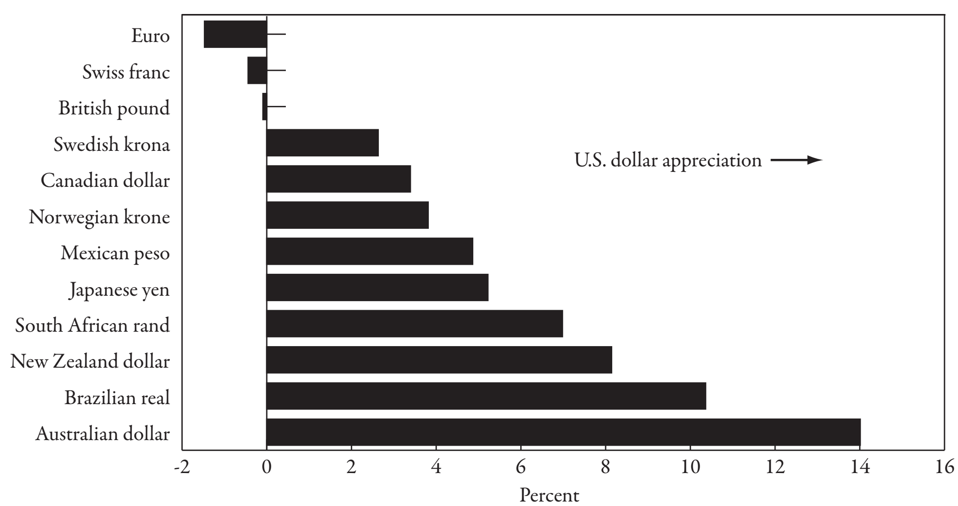
U.S. DOLLAR–YEN EXCHANGE RATE



Source: Bloomberg L.P.

Chart 4

U.S. DOLLAR PERFORMANCE AGAINST MAJOR CURRENCIES DURING SECOND QUARTER



Source: Bloomberg L.P.

U.S. DOLLAR APPRECIATES AMID IMPROVING ECONOMIC OUTLOOK AND EXPECTATIONS FOR REDUCED MONETARY POLICY ACCOMMODATION

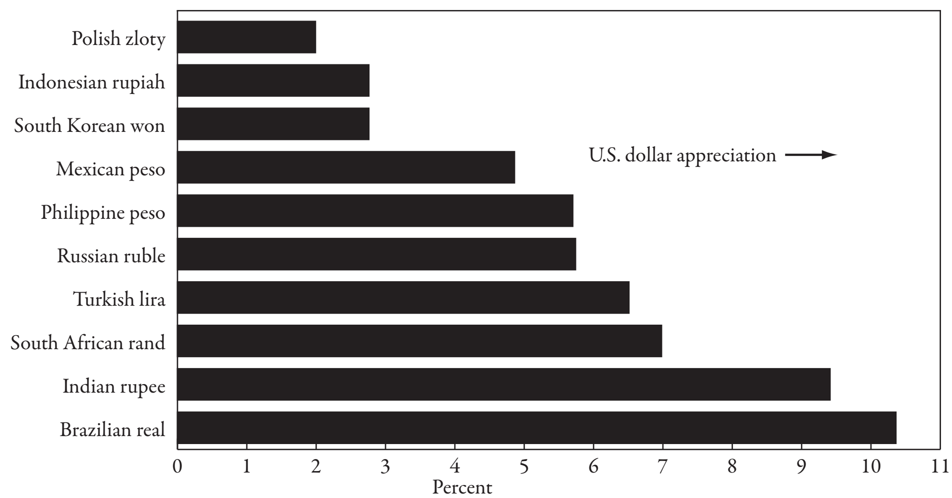
During the second quarter, the trade-weighted U.S. dollar appreciated 1.7 percent on net, reaching its highest level since July 2010. The dollar was supported by improving U.S. economic data, particularly in the housing and labor markets, and an emerging expectation that the Federal Reserve could begin to reduce the pace of asset purchases before the end of the year. This was evident in the notable rise in U.S. Treasury yields, especially relative to other global rates, as the ten-year yield reached its highest level since 2011. Other rate-sensitive assets also reacted in line with expectations of reduced monetary accommodation, as primary mortgage rates increased to two-year highs and high-dividend-paying equities underperformed the broader market over the quarter. The shift in market expectations for the U.S. economic outlook and monetary policy contrasted with expectations for further monetary policy accommodation at other major central banks, prompting investors to increase allocations to dollar-denominated assets.

U.S. DOLLAR BROADLY APPRECIATES AGAINST EMERGING MARKET CURRENCIES

The U.S. dollar appreciated between 2 and 11 percent against most emerging market currencies during the second quarter, driven by the improved relative U.S. growth outlook and the aforementioned shifting expectations for U.S. monetary policy. The change in sentiment prompted investors to begin reducing exposures to higher-yielding and cyclically sensitive emerging market assets by selling fixed-income and equity securities as well as hedging exposures in the currency market. This behavior resulted in heightened volatility and significant downward pressure on the price of emerging market sovereign debt and currencies, which have generally benefited in recent years as global investors have accumulated emerging market exposures. These moves were most pronounced in countries with relatively large current account deficits and that generally rely more heavily on foreign capital inflows, such as India, Turkey, South Africa, and Brazil. In addition to the prospect of less accommodative U.S. monetary conditions, the broad depreciation also reflected downward revisions to the emerging market growth outlook and, in a few countries, mounting political risks. During the second quarter, emerging market growth forecasts were downgraded due to worse-than-expected output, prospects of weaker growth from China, and high-frequency data (such as exports and surveys of manufacturing activity) showing renewed weakness.

Chart 5

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



Source: Bloomberg L.P.

Policymakers took a number of steps to contain these market pressures during the quarter, though the scale and type of response varied significantly by country. Many emerging market central banks intervened in spot and forward foreign exchange markets in order to help stem domestic currency depreciation. Authorities also moved to relax foreign investment taxes and other administrative controls to encourage capital inflows.

U.S. DOLLAR CONTINUES TO APPRECIATE AGAINST YEN FOLLOWING INTRODUCTION OF HISTORIC JAPANESE MONETARY POLICY MEASURES

The U.S. dollar appreciated 5.2 percent against the yen in the second quarter, following a 20.9 percent appreciation over the prior two quarters, after the Bank of Japan (BoJ) announced a historic shift in its monetary policy framework in early April. Specifically, the BoJ introduced its Quantitative and Qualitative Easing program, which included adoption of a monetary base target, purchases of longer-dated Japanese government bonds (JGBs), and acceleration of its open-ended asset purchases, to begin immediately rather than in 2014. This level of policy accommodation was seen as larger than anticipated, resulting in the dollar-yen currency pair increasing above the 100 yen per dollar level for the first time since 2009. The peak in the dollar's strength against the yen also marked the peak for the Nikkei 225 equities index, which had been closely tracking the dollar-yen currency pair since November of last year. The continuation of the yen's depreciation trend was driven in part by the expectation that large Japanese real money investors such as insurers and pension funds would ultimately shift allocations toward higher-yielding investment opportunities abroad. However, weekly flow data released by the Japanese Ministry of Finance continued to show that Japanese investors for the most part remained net sellers of foreign securities over the quarter.

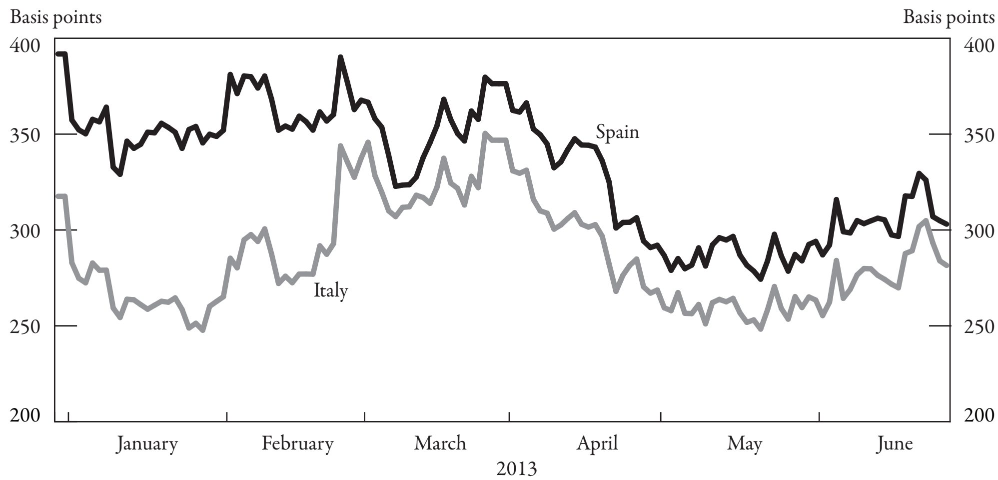
The yen reversed course in late May, when it began to broadly appreciate following the significant rise in JGB yields and volatility, which was attributed to a number of factors. Uncertainty surrounding BoJ policy operations, improved Japanese growth expectations, and increased inflation expectations were all cited by market participants as helping to push yields on ten- and thirty-year JGBs higher. Measures of implied volatility for the dollar-yen currency pair also increased notably over this period. Toward the end of the quarter, however, the yen resumed its depreciation trend against the dollar, consistent with the increase in U.S. Treasury yields following the June Federal Open Market Committee (FOMC) meeting.

U.S. DOLLAR FLUCTUATES WITHIN RANGE AGAINST EURO AMID VARIOUS CROSSCURRENTS

The euro-dollar currency pair fluctuated mostly within the 1.28 to 1.34 dollars-per-euro range throughout the second quarter, with the dollar depreciating 1.5 percent on net against the euro. The price action was driven by several crosscurrents. The euro depreciated early in the quarter as market participants debated the extent to which the European Central Bank (ECB) could introduce additional monetary policy easing measures, in particular, by moving to a negative rate on its deposit facility. These expectations were pared back following the ECB's June Governing Council meeting, where no major suggestions of additional accommodation were communicated. As a result, the euro appreciated broadly alongside rising short-term interest rates. The euro depreciated further against the dollar following the June FOMC meeting amid shifting expectations for a reduced pace of policy accommodation by the Federal Reserve.

An improvement in economic data throughout the euro area, particularly manufacturing surveys, helped support the euro over the second quarter. A sustained current account surplus position and perceived stability across the periphery countries added to the improved sentiment toward the region as well. Correspondingly, ten-year Spanish and Italian debt spreads to the German equivalent narrowed by 73 and 65 basis points, respectively, during the quarter.

Chart 6
TEN-YEAR YIELD SPREADS OVER GERMAN EQUIVALENT

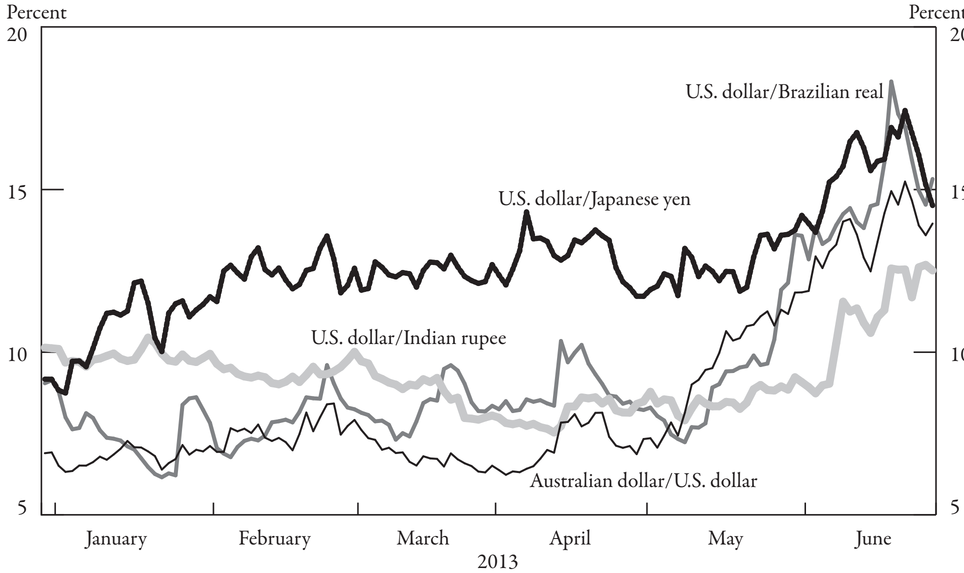


Source: Bloomberg L.P.

FOREIGN EXCHANGE LIQUIDITY CONDITIONS DETERIORATE AMID HEIGHTENED VOLATILITY

Liquidity conditions in foreign exchange markets deteriorated throughout the quarter as uncertainty surrounding global policy resulted in greater volatility across asset classes. Dealers broadly reported widening bid-ask spreads and little depth to the market, resulting in an environment where smaller trade sizes had a greater effect on pricing. Against this backdrop, dealers reported frequent bouts of strong one-way interest as positions were unwound, exacerbating price movements. Strains were reportedly most pronounced among emerging market currencies, but G-10 currencies experienced some deterioration in liquidity conditions as well. During the quarter, measures of implied volatility reached multiyear highs across several currency pairs.

Chart 7
ONE-MONTH AT-THE-MONEY OPTION-IMPLIED VOLATILITY



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 \$23.45 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled \$23.47 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 Bank of England (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 June 30, the ECB had \$1.68 billion outstanding under the U.S. dollar liquidity swaps, of which \$1.48 billion was in three-month tenors and \$0.20 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 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 $21.73 billion and foreign government securities held under repurchase agreements totaled $3.83 billion.

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, March 31, 2013[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, June 30, 2013[a]
Federal Reserve System Open Market Account (SOMA)						
Euro	13,855	0	20	0	210	14,085
Japanese yen	9,886	0	3	0	(503)	9,386
Total	23,741	0	24	0	(294)	23,471

		Changes in Balances by Source				
	Carrying Value, March 31, 2013[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, June 30, 2013[a]
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	13,833	0	20	0	209	14,063
Japanese yen	9,886	0	3	0	(503)	9,386
Total	23,719	0	24	0	(294)	23,449

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 June 30, 2013

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets	**14,062.6**	**14,085.0**
Cash held on deposit at official institutions	7,564.6	7,586.9
Marketable securities held under repurchase agreements[b]	1,919.0	1,919.0
Marketable securities held outright	4,579.1	4,579.1
German government securities	2,254.8	2,254.8
French government securities	2,324.3	2,324.3
Japanese-yen–denominated assets	**9,386.3**	**9,386.3**
Cash held on deposit at official institutions	3,100.0	3,100.0
Marketable securities held outright	6,286.3	6,286.3
Reciprocal currency arrangements		
Euro-denominated assets		**1,679**
Other assets[c]		1,679
Japanese-yen–denominated assets		**0**
Other assets[c]		0
Swiss-franc–denominated assets		**0**
Other assets[c]		0
Canadian-dollar–denominated assets		**0**
Other assets[c]		0
British-pound–denominated assets		**0**
Other assets[c]		0

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

[a] As of June 30, both the SOMA and ESF euro portfolios had Macaulay durations of 9.3 months; the yen SOMA and ESF portfolios had Macaulay durations of 11.7 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.

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Table 3

RECIPROCAL CURRENCY ARRANGEMENTS

Millions of U.S. Dollars

Institution	Amount of Facility	Outstanding as of June 30, 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	1,679
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	1,679
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Banco de México	3,000	0
	3,000	0

[a]Temporary swap arrangement.