### TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

### January–March 2014

During the first quarter, the U.S. dollar's nominal trade-weighted exchange value appreciated 0.6 percent as measured by the Federal Reserve Board's major currencies index. The dollar appreciated 4.0 percent against the Canadian dollar, but depreciated 0.6 percent and 2.0 percent against the British pound and Japanese yen, respectively; it was unchanged against the euro. Additionally, the dollar depreciated 3.7 percent and 5.2 percent against the Australian dollar and New Zealand dollar, respectively, and was mixed against emerging market currencies. 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 2014. Paul Dozier was primarily responsible for preparation of the report.



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

Chart 2 EURO-U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 1



### U.S. DOLLAR IS LITTLE CHANGED AMID FOCUS ON GLOBAL GROWTH OUTLOOK AND CHANGES IN RISK SENTIMENT

During the first quarter, the trade-weighted U.S. dollar appreciated 0.6 percent. Heightened uncertainty about the global growth outlook, driven particularly by weaker-than-expected economic data and political uncertainty in some emerging market countries, supported the dollar early in the quarter. The U.S. dollar depreciated later in the quarter as emerging market central banks took policy actions that helped stem financial market volatility.

Weaker-than-expected economic data releases in the United States and emerging market countries contributed to U.S. dollar appreciation early in the quarter. In particular, December and January U.S. nonfarm payroll employment data and the January Institute for Supply Management (ISM) index were significantly below expectations, although market participants attributed the weak reports in part to unusually cold weather. Weaker-than-expected economic data in China, notably the preliminary release of January Purchasing Managers Index (PMI) data, and political uncertainty in other emerging market countries added to global growth outlook concerns. However, actions taken by emerging market central banks in late January helped stabilize global risk sentiment, leading to a broad depreciation of the U.S. dollar.

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



Market participants continued to expect an ongoing but gradual economic recovery in the United States and did not cite expectations of Federal Reserve policy action as a significant driver of price action. Relatively weak U.S. data releases early in the quarter were attributed in part to severe winter weather conditions and were offset by stronger releases later in the quarter. Similarly, expectations for continued reductions in the pace of Federal Reserve asset purchases at upcoming Federal Open Market Committee (FOMC) meetings remained unchanged. However, the market-implied path of Federal Reserve policy rates moved higher, largely attributable to higher-than-expected projections for the appropriate federal funds rate target in the March 19 Summary of Economic Projections, and to expectations of a shorter time period between the end of asset purchases and the first policy rate hike.

# U.S. DOLLAR IS LITTLE CHANGED AGAINST THE EURO, BUT DEPRECIATES MODESTLY AGAINST THE BRITISH POUND

The U.S. dollar depreciated 0.2 percent against the euro, reaching a multiyear low before largely retracing its path. During the quarter, the euro was supported by gradually improving economic indicators in the euro area, a rise in real interest rates, foreign flows into euro-area equity and fixed income markets, and, contrary to market expectations, the absence of additional accommodative measures by the European Central Bank (ECB). Euro-area manufacturing data releases continued to improve, roughly in line with expectations, and fourth-quarter euro-area GDP reported at 0.5 percent

year-on-year, its first positive annual growth rate in two years. However, euro-area inflation continued to weaken, reporting at just 0.5 percent in March, its lowest level since October 2009 and well below the ECB's medium-term inflation target of below-but-close-to two percent.

The ECB did not announce any new policy actions during the quarter, leading many market participants to characterize the tone of the March 6 ECB policy meeting, in particular, as being less accommodative than expected. This sentiment contributed to higher money market rates and further supported the euro. However, later in the quarter, ECB President Mario Draghi emphasized the downward pressure on inflation, which he attributed in part to lower energy prices, seasonal affects from the Easter holiday falling later in the calendar year, and the strength of the euro, and suggested a readiness to implement further policy accommodation if inflation did not increase. This position weighed on the euro toward the end of March.

Separately, the U.S. dollar depreciated 0.6 percent against the British pound, due to continuing relatively strong economic data and a favorable outlook from the Bank of England's (BoE) February quarterly Inflation Report. During the quarter, the unemployment rate declined faster than expected, while the Bank of England, in its February inflation report, revised upward its 2014 GDP projections to 3.4 percent from the prior report's 2.9 percent. This revision coincided with an increase in money market rates and sovereign yields by as much as 10 basis points, with market-implied expectations for the first policy rate hike shifting to the first quarter of 2015.

### U.S. DOLLAR DEPRECIATES AGAINST THE YEN OWING TO BETTER-THAN-EXPECTED JAPANESE ECONOMIC DATA AND SAFE-HAVEN FLOWS INTO THE YEN The U.S. dollar depreciated 2.0 percent against the Japanese ven, owing to a number of factors including

The U.S. dollar depreciated 2.0 percent against the Japanese yen, owing to a number of factors including statements from the Bank of Japan (BoJ) suggesting that additional near-term accommodation was unlikely. Yen appreciation was broad-based against major currencies, as heightened concerns about growth in emerging market countries early in the quarter prompted investor flows into the Japanese yen and other safe-haven currencies. Some market participants expected monetary policy accommodation in the first quarter, asserting that the Bank of Japan would act to offset the impact of the increase in the consumption tax ahead of the April 1 implementation date. However, during the first quarter, Japanese economic data were generally better than expected, leading Bank of Japan policymakers to express confidence in the economic outlook, pushing back market expectations for additional monetary accommodation to the second or third quarter.

## U.S. DOLLAR APPRECIATES AGAINST THE CHINESE YUAN AS OFFICIALS WIDEN INTRADAY TRADING BAND

The U.S. dollar appreciated 2.7 percent against the Chinese yuan during the quarter as Chinese authorities depreciated the central parity exchange rate and, according to official People's Bank of China reserves data, continued to accumulate foreign reserves. Market participants viewed this action as an effort on the part of Chinese authorities to introduce greater two-way risk in the U.S. dollar-Chinese yuan exchange rate and stem capital inflows. However, debate exists whether authorities acted in response to decelerating growth. In addition, the People's Bank of China announced on March 15 a widening of the trading band from +/-1 percent to +/- 2 percent around the official central parity exchange rate. After the yuan traded near the stronger side of the band in January and most of February, it traded on the weaker side for the remainder of the quarter amid an increase in realized volatility. The offshore Chinese yuan slightly underperformed the onshore market as corporate investors hedged positions in structured currency products that were designed to benefit from the continued and stable appreciation of the Chinese currency.



#### *Chart 5* ONSHORE AND OFFSHORE RENMINBI SPOT RATES

Sources: Bloomberg L.P.

## U.S. DOLLAR IS MIXED AGAINST CYCLICALLY SENSITIVE AND EMERGING MARKET CURRENCIES AMID SHIFTING MARKET SENTIMENT

The U.S. dollar was mixed against emerging market currencies, with higher-yielding currencies tending to outperform during the quarter. Emerging market currencies initially came under pressure early in the quarter owing to concerns about the economic outlook and political developments in some countries. However, many emerging market currencies strengthened as global economic data improved, and central banks in Turkey, South Africa, and Argentina raised interest rates and introduced other measures that helped stem financial market volatility.

The U.S. dollar was also mixed against cyclically sensitive currencies during the quarter. The U.S. dollar appreciated 4.0 percent against the Canadian dollar, driven by relatively weaker Canadian economic indicators and market expectations of further monetary policy accommodation by the Bank of Canada (BoC). The U.S. dollar depreciated 3.7 percent and 5.2 percent against the Australian dollar and New Zealand dollar, respectively. These movements were driven in part by the removal of an easing bias by the Reserve Bank of Australia at its February 4 policy meeting, followed by a stronger-than-expected March 13 employment report and heightened expectations for a policy rate hike by the Reserve Bank of New Zealand, which was realized at its policy meeting on March 13.

### Chart 6

### U.S. DOLLAR PERFORMANCE AGAINST EMERGING MARKET CURRENCIES DURING FIRST QUARTER



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 March 31, the value of the U.S. Treasury's Exchange Stabilization Fund foreign-currency-denominated assets totaled \$24.00 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled \$24.03 billion, also comprised of euro and yen holdings.

### Liquidity Swap Arrangements with Foreign Central Banks

As of March 31, the ECB had \$407 million outstanding under the U.S. dollar liquidity swaps, all in three-month tenor transactions. The BoC, BoE, BoJ, and Swiss National Bank had no outstanding swaps at the end of the quarter. In addition, these four central banks announced that they would gradually reduce their offerings of U.S. dollar liquidity in light of the considerable improvement in dollar funding conditions, with eighty-four-day operations held until the end of April 2014, and one-week operations continuing until at least the end of July.

### 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 slightly elevated in the fourth 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 was 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 March 31, direct holdings of foreign government securities totaled \$5.22 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, December 31, 2013ª	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>	Carrying Value, March 31, 2014ª
Federal Reserve System						
Open Market Account (SOMA)						
Euro	14,958	0	19	0	(2)	14,974
Japanese yen	8,854	0	3	0	195	9,052
Total	23,812	0	22	0	194	24,027

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	Carrying Value, December 31, 2013ª	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>	Carrying Value, March 31, 2014 <sup>a</sup>
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	14,934	0	19	0	(2)	14,951
Japanese yen	8,854	0	3	0	195	9,052
Total	23,788	0	22	0	194	24,003

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 March 31, 2014

	U.S. Treasury Exchange Stabilization Fund (ESF)ª	Federal Reserve System Open Market Account (SOMA)ª
Euro-denominated assets	14,950.8	14,974.5
Cash held on deposit at official institutions	7,458.7	7,482.4
Marketable securities held under repurchase agreements <sup>b</sup>	2,610.8	2,610.8
Marketable securities held outright	4,881.3	4,881.3
German government securities	2,440.6	2,440.6
French government securities	2,440.7	2,440.7
Japanese-yen-denominated assets	9,052.3	9,052.2
Cash held on deposit at official institutions	2,994.7	2,994.7
Marketable securities held outright	6,057.6	6,057.6
Reciprocal currency arrangements		
European Central Bank <sup>c</sup>		407
Bank of Japan <sup>c</sup>		0
Swiss National Bank <sup>c</sup>		0
Bank of Canada <sup>c</sup>		0
Bank of Englands <sup>c</sup>		0
-		

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

<sup>a</sup> As of March 31, the euro SOMA and ESF portfolios both had Macaulay durations of 9.2 months; the yen SOMA and ESF portfolios both had Macaulay durations of 11.5 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

Outstanding as of March 31, 2014 Institution Amount of Facility Federal Reserve System Open Market Account (SOMA) Bank of Canada 2,000 0 Banco de México 3,000 0 407 European Central Bank Unlimited Swiss National Bank Unlimited 0 Bank of Japan Unlimited 0 Bank of Canada Unlimited 0 Bank of England Unlimited 0 Unlimited 407

	U.S. Treasury Exchange Stabilization Fund (ESF)				
Banco de México	3,000	0			
	3,000	0			

Note: This version of the document has been corrected to reflect the size of the Bank of Canada's facility under the standing swap arrangements. This document was updated on May 14, 2014.