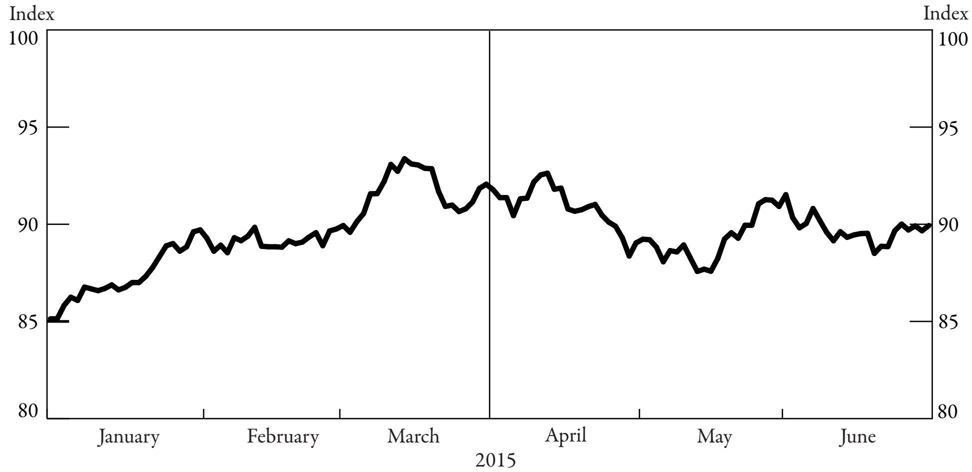
TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

April–June 2015

During the second quarter, the U.S. dollar's nominal trade-weighted exchange value depreciated 2.3 percent, as measured by the Federal Reserve Board's major currencies index. The U.S. dollar depreciated most notably against European currencies, including declines of 3.6 percent against the euro and 5.6 percent against the British pound, respectively. The dollar's performance was a departure from the steady and notable appreciation observed from mid-2014 through the first quarter of 2015 and reflected mixed U.S. economic data, improving euro-area and U.K. data, and a notable rise in euro-area sovereign interest rates. Contrary to the development against European currencies, the U.S. dollar appreciated 2.0 percent against the Japanese yen, though market contacts did not attribute this price action to specific Japan-related developments. The U.S. monetary authorities did not intervene in the foreign exchange markets during the quarter.

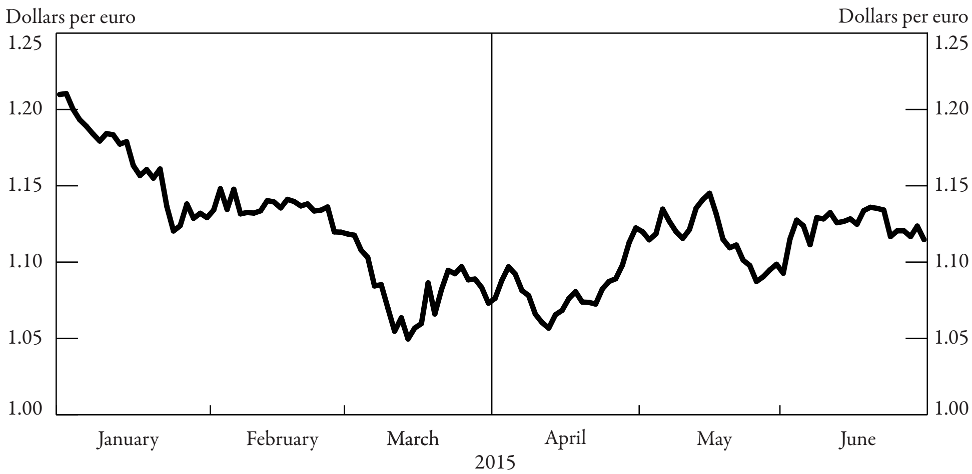
This report, presented by Simon Potter, Executive Vice President, Federal Reserve Bank of New York, and Manager of the System Open Market Account, describes the foreign exchange operations of the U.S. Department of the Treasury and the Federal Reserve System for the period from April through June 2015. Evan Kereiakes was primarily responsible for preparation of the report.

Chart 1
TRADE-WEIGHTED U.S. DOLLAR



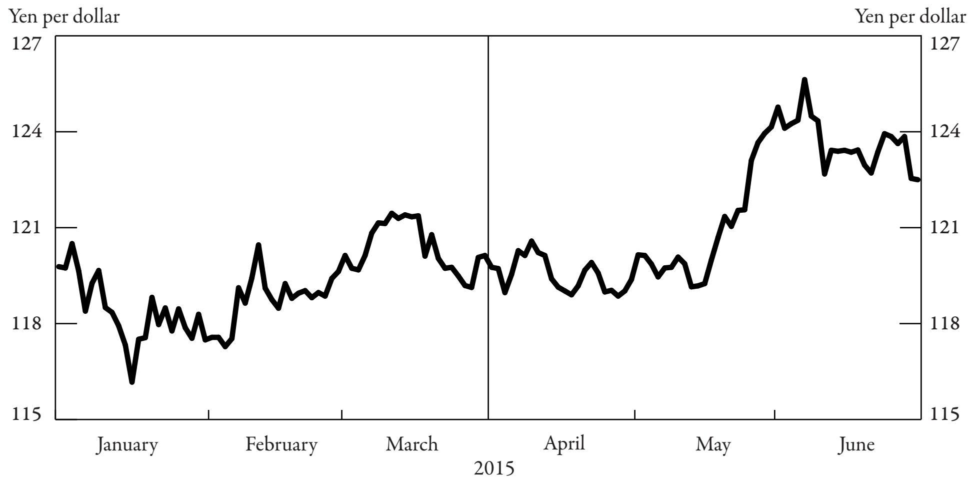
Source: Board of Governors of the Federal Reserve System.

Chart 2
EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3
U.S. DOLLAR–YEN EXCHANGE RATE



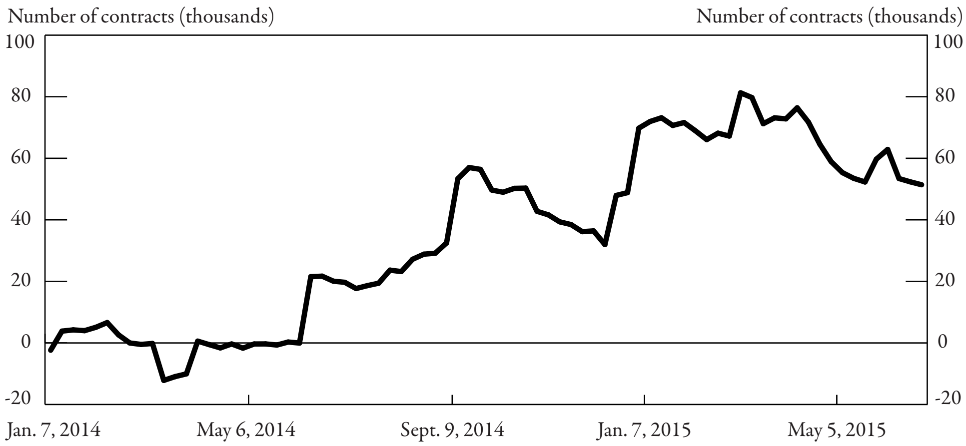
Source: Bloomberg L.P.

U.S. DOLLAR DEPRECIATES AGAINST MOST MAJOR CURRENCIES AMID WEAKER-THAN-EXPECTED U.S. DATA AND A RISE IN EURO-AREA SOVEREIGN RATES

During the second quarter, the trade-weighted U.S. dollar depreciated 2.3 percent on net, reflecting weaker-than-expected U.S. economic data and nascent signs of improving economic activity in the euro area. This development prompted a partial unwind of long U.S. dollar positions that had accumulated since the summer of 2014 and was broadly consistent with the narrowing of interest rate differentials between the United States and several other major economies.

With market expectations for the timing of a possible rise in the federal funds rate sometime this year, currency markets remained highly attuned to the evolution of U.S. economic data and official commentary around U.S. monetary policy. Weaker-than-expected U.S. first-quarter GDP, March and April Employment Situation reports, and retail sales data weighed on the dollar early in the quarter, as these readings led to some uncertainty among market participants about the perceived strength of the U.S. economic recovery. The initial U.S. dollar depreciation followed a roughly 20 percent appreciation in the U.S. dollar trade-weighted index over the preceding three quarters to levels last observed in 2003. Some better-than-expected U.S. economic data releases toward the end of the quarter reversed a portion of the dollar's earlier depreciation, as market participants viewed the data as likely confirming the April Federal Open Market Committee (FOMC) statement that attributed the economic

Chart 4
NET NONCOMMERCIAL U.S. DOLLAR POSITIONING

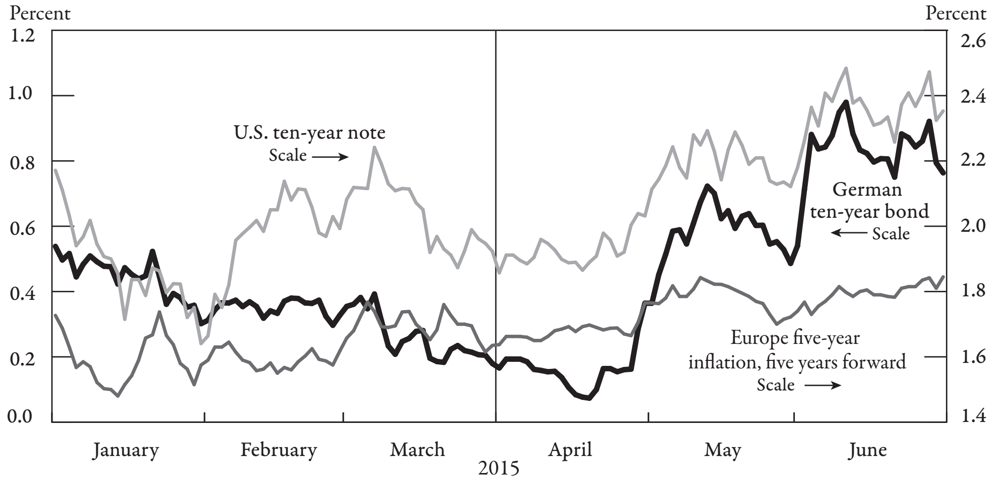


Sources: Commodity Futures Trading Commission; Bloomberg L.P.

slowdown to transitory weather-related factors. The fluctuation in the dollar continued toward the end of the quarter, as the June FOMC meeting statement was broadly viewed by market participants as slightly more accommodative than expected owing to the lower distribution of year-end 2015 rate projections in the Summary of Economic Projections (SEP). Market participants interpreted the projections as marginally reducing the likelihood that more than one rate hike would occur by the end of the year. While domestic factors weighed on the exchange value of the dollar on balance over the quarter, other factors—particularly in Europe—remained the primary focus in global financial markets.

The U.S. dollar depreciated 3.6 percent against the euro in the second quarter, retracing a portion of the euro's depreciation since the summer of 2014. The primary factors supporting the euro were the perceived stabilization of disinflation in the region, indications of an improvement in the growth outlook, and the resulting increase in core euro-area sovereign bond yields. Euro-area core and headline inflation increased modestly to 0.8 percent and 0.2 percent, respectively, and expectations for five-year inflation five years ahead increased 21 basis points to 1.85 percent. Meanwhile, euro-area composite PMI data reflected continued expansion during the quarter, while year-over-year GDP data for the first quarter showed 1 percent growth, the second-highest level in the past three years.

Chart 5
TEN-YEAR U.S. AND GERMAN SOVEREIGN YIELDS

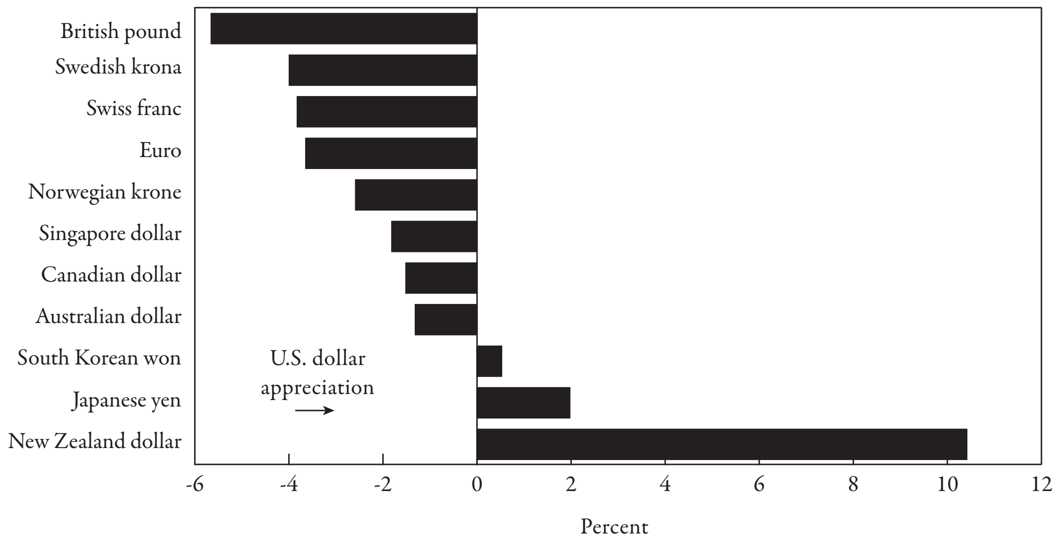


Source: Bloomberg L.P.

These signs of improved economic activity supported the exchange value of the euro and contributed to a notable rise in euro-area sovereign yields as some investors questioned whether the initial market reaction to the European Central Bank's (ECB) Public Sector Purchase Program (PSPP) had been overdone. Indeed, the rise in yields may have reflected what some market participants deemed a partial reversal of the so-called "ECB quantitative easing trade," whereby investors reportedly had positioned for ECB asset purchases through some combination of European sovereign bond purchases, European equities purchases, and short-euro currency exposures. This re-pricing of euro-area sovereign yields resulted in the ten-year German bund yield increasing 58 basis points, from an end-of-day low of 7 basis points in April, and caused the similar tenor spread to U.S. Treasuries to widen 15 basis points.

The dollar also depreciated modestly against other European currencies, including a 5.6 percent decline against the British pound as several factors contributed to the British pound's outperformance. Though currency volatility increased ahead of the British general election in May, the decisive results of the election were seen as removing protracted uncertainty around the formation of a government. This outcome, along with well-received economic data, led to a reduction in short positions in the British pound, which contributed to the pound's broad appreciation.

Chart 6
U.S. DOLLAR PERFORMANCE AGAINST DEVELOPED MARKET CURRENCIES DURING SECOND QUARTER



Source: Bloomberg L.P.

Elsewhere, the U.S. dollar appreciated 2.0 percent against the Japanese yen, though this was not attributed to any fundamental developments in Japan. Sovereign interest rate differentials between the United States and Japan shifted in the dollar's favor, as two-year and ten-year sovereign interest rate spreads widened by 12 and 37 basis points, respectively.

GREEK DEVELOPMENTS HAVE LITTLE IMPACT ON BROADER MARKETS, AS EURO REMAINS RESILIENT TO RISKS

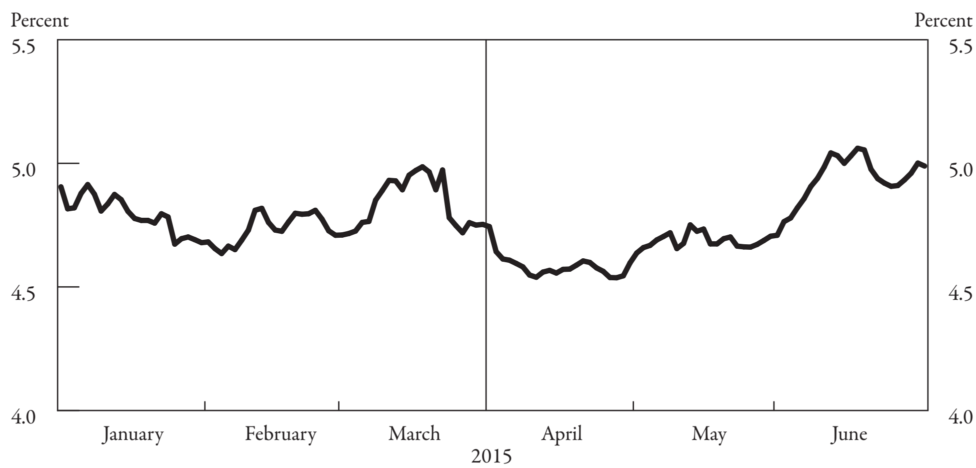
Toward the end of the quarter, developments related to the Greek fiscal crisis became the focal point of global financial markets, though the impact on the euro–U.S. dollar exchange rate was subdued, on net. While these developments had a relatively limited impact on the spot currency market, the pricing of Greek-related event risk premia was evident in the euro–U.S. dollar option-implied volatility curve. Throughout the quarter, the implied volatility structure became increasingly inverted, with the one-week to one-year at-the-money implied volatility spread reaching its most inverted level since 2008 and options market skew pointing to increased demand for downside euro–U.S. dollar protection. Despite the elevated uncertainty, most market participants continued to believe that the country would eventually reach an agreement with its creditors, or that the spillovers from Greek uncertainty to other financial markets would be effectively managed by euro-area authorities.

As implied volatility on the euro currency pairs rose, dealers reported unwinding of euro-funded positions against a broader set of currencies, as investors were hesitant to hold positions amid elevated uncertainty and rising interest rates. Dealers also cited adjustments to currency-hedged euro equity positions—which had become increasingly popular since the start of the ECB PSPP—as adding incremental support to the euro as euro-area equities declined. Overall, the impact of rising euro-area yields and better-than-expected euro-area economic data, along with currency hedging unwinds—as reflected in data from the Commodity Futures Trading Commission showing a reduction in short-euro investor positioning over the quarter—provided support to the euro–U.S. dollar exchange rate.

U.S. DOLLAR MIXED AGAINST EMERGING MARKET AND COMMODITY-LINKED CURRENCIES

Emerging market currencies as a group exhibited notable disparity against the dollar owing primarily to local factors, as performance ranged from a 3 percent depreciation of the Turkish lira to a 5 percent appreciation of the Russian ruble against the U.S. dollar. While broader emerging market assets showed signs of improvement early in the quarter amid mixed emerging market economic data and weaker U.S. data, the aforementioned sharp increase in developed market yields and higher interest

Chart 7
EMERGING MARKET BOND YIELDS

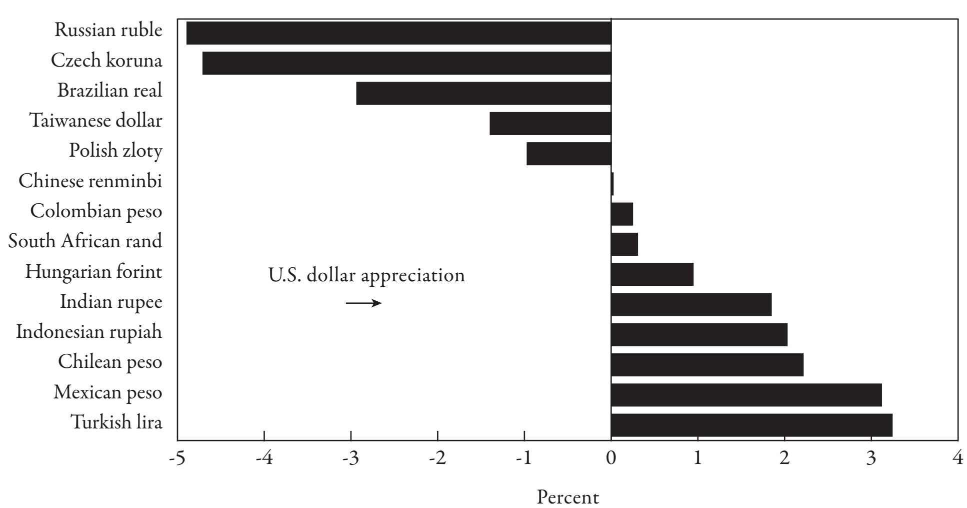


Source: Bloomberg L.P.

rate volatility caused a broad deterioration in emerging market asset prices later on. In particular, hard currency emerging market bond yields increased about 45 basis points, according to the Bloomberg emerging market bond index,[1] and emerging market currencies depreciated as much as 6 percent during the period of rising developed bond market yields beginning in late April. Indeed, emerging market currencies underperformed their developed market peers more broadly during this period. Separately, the Chinese yuan was little changed against the U.S. dollar and exhibited relatively low volatility, despite notable volatility in Chinese equity markets.

Commodity-linked currencies such as the Norwegian krone, Australian dollar, and Canadian dollar appreciated modestly against the U.S. dollar, consistent with the 9.1 percent increase in front-month Brent crude oil prices and stabilization in the longer-run trend of declining commodity prices. One notable exception among the commodity currency complex was the New Zealand dollar, against which the U.S. dollar appreciated 10.4 percent, with growth and policy divergence remaining a key factor. In June, the Reserve Bank of New Zealand unexpectedly lowered its official cash rate 25 basis points to 3.25 percent, and signaled that further easing may be appropriate to support slowing growth and below-target inflation.

Chart 8
U.S. DOLLAR PERFORMANCE AGAINST EMERGING MARKET CURRENCIES DURING SECOND QUARTER



Source: Bloomberg L.P.

[1] The Bloomberg USD Emerging Market Sovereign Bond index is a rules-based market-value-weighted index engineered to measure fixed-rate U.S. dollar sovereign bonds in emerging market countries.

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 $19.81 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account holdings of foreign-currency-denominated assets totaled $19.83 billion, also comprised of euro and yen holdings.

Liquidity Swap Arrangements with Foreign Central Banks

As of June 30, the Bank of Japan (BoJ) had $520 million of outstanding swaps, all in a seven-day transaction over the quarter-end. Additionally, as of June 30, the ECB had $115 million of outstanding swaps in a seven-day transaction. The Bank of Canada, Bank of England, and Swiss National Bank (SNB) did not have any outstanding swaps at the end of the quarter. On June 30, the Federal Reserve Bank of New York performed a non-U.S. dollar liquidity swap small value exercise, in which the Federal Reserve drew Swiss francs from the Swiss franc liquidity swap line with the SNB. As in October 2014 and February 2015, when the New York Fed performed euro liquidity swap small value exercises with the ECB, the purpose of this small-value operation was to test the operational readiness of non-dollar swap arrangements.[2]

Foreign Exchange Reserve Holdings

The U.S. monetary authorities invest their foreign currency reserves, which are held in the System Open Market Account (SOMA) and the Exchange Stabilization Fund (ESF), in a variety of instruments that yield market rates of return in their respective currencies and have a high degree of liquidity and credit quality. The Authorization for Foreign Currency Operations defines the permitted investments for the SOMA foreign currency portfolio.

[2] Federal Reserve Bank of New York's press statement:
http://www.newyorkfed.org/markets/opolicy/operating_policy_141021.html

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. The securities accepted in repurchase agreements are typically consistent with the investments made on an outright basis. Foreign currency reserves may also be invested at the Bank for International Settlements and in facilities at other official institutions such as the Deutsche Bundesbank, the Banque de France, and the BoJ. To the greatest extent practicable, the investments are split evenly between the SOMA and the ESF.

As of June 30, the euro reserves held by both the SOMA and ESF totaled $24.34 billion. Cash held in euro-denominated deposits at official institutions increased to $12.76 billion from $12.3 billion, while direct holdings of euro-denominated government securities increased to $11.58 billion from $11.1 billion. Foreign government securities held under repurchase agreements remained at zero. The portfolio allocation at quarter-end continues to reflect extremely low or negative rates across money market instruments in the euro area. The amount of yen-denominated deposits and government securities has remained fairly steady over recent quarters, totaling $15.3 billion at quarter-end. In addition, on April 14, the Federal Reserve Bank of New York entered into a small-value repurchase agreement in which the SOMA and ESF borrowed cash against sovereign securities held outright in the portfolio. The small-value transaction was undertaken for the purpose of testing operational readiness.

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, 2015[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, 2015[a]
Federal Reserve System Open Market Account (SOMA)						
Euro	11,723	0	6	0	451	12,180
Japanese yen	7,780	0	2	0	(136)	7,645
Total	19,502	0	8	0	314	19,825

		Changes in Balances by Source				
	Carrying Value, March 31, 2015[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, 2015[a]
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	11,704	0	6	0	450	12,161
Japanese yen	7,780	0	2	0	(136)	7,645
Total	19,484	0	8	0	314	19,806

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, 2015

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets	**12,160.8**	**12,179.9**
Cash held on deposit at official institutions	6,372.2	6,391.3
Marketable securities held under repurchase agreements[b]	0.0	0.0
Marketable securities held outright	5,788.6	5,788.6
German government securities	2,344.0	2,344.0
French government securities	3,444.5	3,444.5
Japanese-yen–denominated assets	**7,645.2**	**7,645.1**
Cash held on deposit at official institutions	2,525.7	2,525.7
Marketable securities held outright	5,119.4	5,119.4
Reciprocal currency arrangements		
European Central Bank[c]		115
Bank of Japan[c]		520
Swiss National Bank[c]		0
Bank of Canada[c]		0
Bank of England[c]		0
Banco de México[c]		0

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

[a] As of June 30, the euro SOMA and ESF portfolios both had Macaulay durations of 13.0 months; the yen SOMA and ESF portfolios both had Macaulay durations of 12.7 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, the Bank of England, and Banco de México.

Table 3

RECIPROCAL CURRENCY ARRANGEMENTS

Millions of U.S. Dollars

Institution	Amount of Facility	Outstanding as of June 30, 2015
	Federal Reserve System Open Market Account (SOMA)	
Reciprocal currency arrangement		
Bank of Canada	2,000	0
Banco de México	3,000	0
Standing dollar liquidity swap arrangement		
European Central Bank	No preset limit	115
Swiss National Bank	No preset limit	0
Bank of Japan	No preset limit	520
Bank of Canada	No preset limit	0
Bank of England	No preset limit	0
	No preset limit	635
Standing foreign currency liquidity swap arrangement		
European Central Bank	No preset limit	0
Swiss National Bank	No preset limit	0
Bank of Japan	No preset limit	0
Bank of Canada	No preset limit	0
Bank of England	No preset limit	0
	No preset limit	0
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Banco de México	3,000	0
	3,000	0