TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

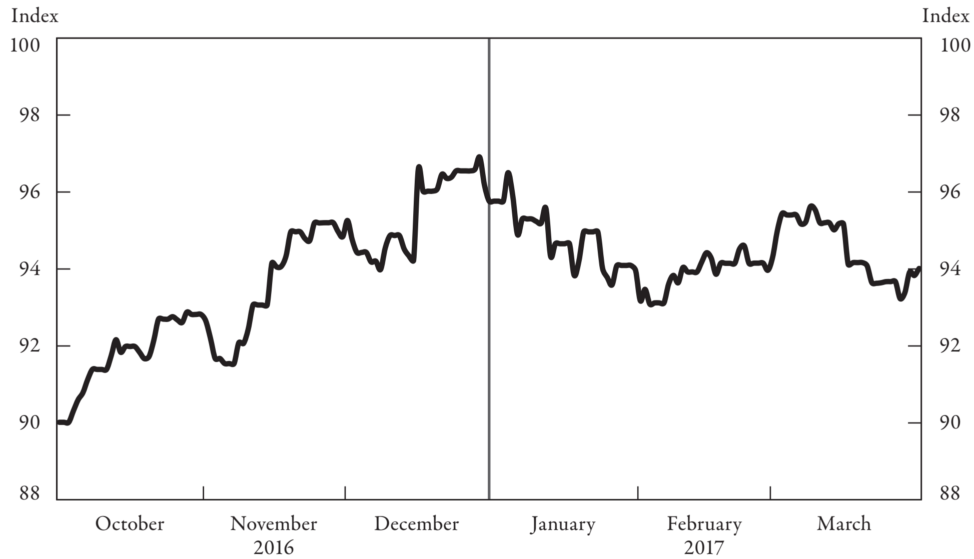
January–March 2017

In the first quarter of 2017, the U.S. dollar, as measured by the Federal Reserve Board's trade-weighted major currencies index, declined 1.8 percent. The depreciation of the dollar reversed much of the movement that had occurred following the U.S. election, and came amid uncertainty regarding the implementation of expansionary U.S. fiscal policy and expectations for a gradual pace of policy normalization by the Federal Open Market Committee (FOMC). Among major currencies, the dollar depreciated 1.3 percent against the euro, 1.7 percent against the British pound, and 4.8 percent against the Japanese yen. The dollar also depreciated against most emerging market currencies during the quarter, driven in part by improving global economic data. Emerging market currency performance was led by the Mexican peso, which appreciated 10.7 percent against the dollar, reversing most of the depreciation observed in the last quarter of 2016. 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 2017. Rodrigo Gonzalez was primarily responsible for preparation of the report.

Chart 1

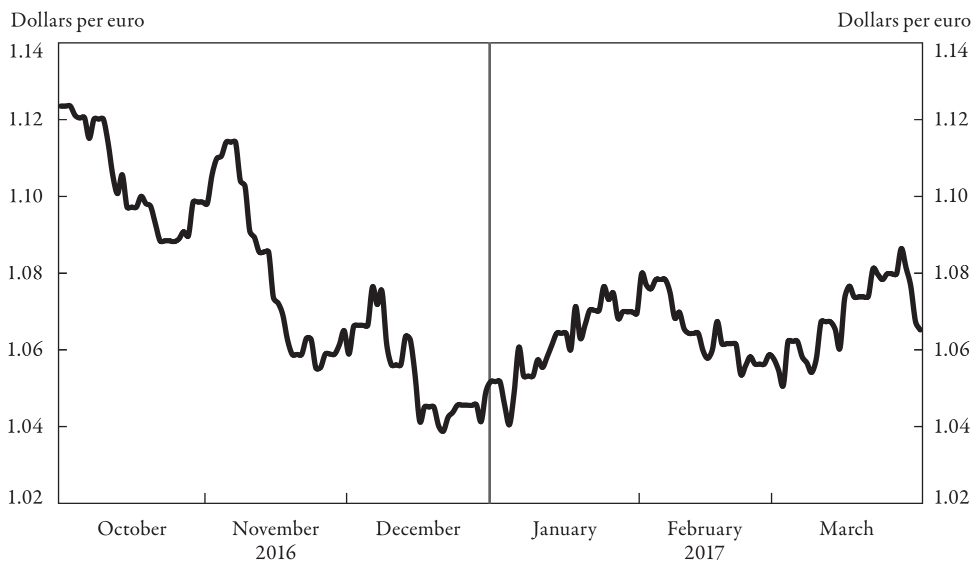
MAJOR CURRENCY TRADE-WEIGHTED U.S. DOLLAR



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

Chart 2

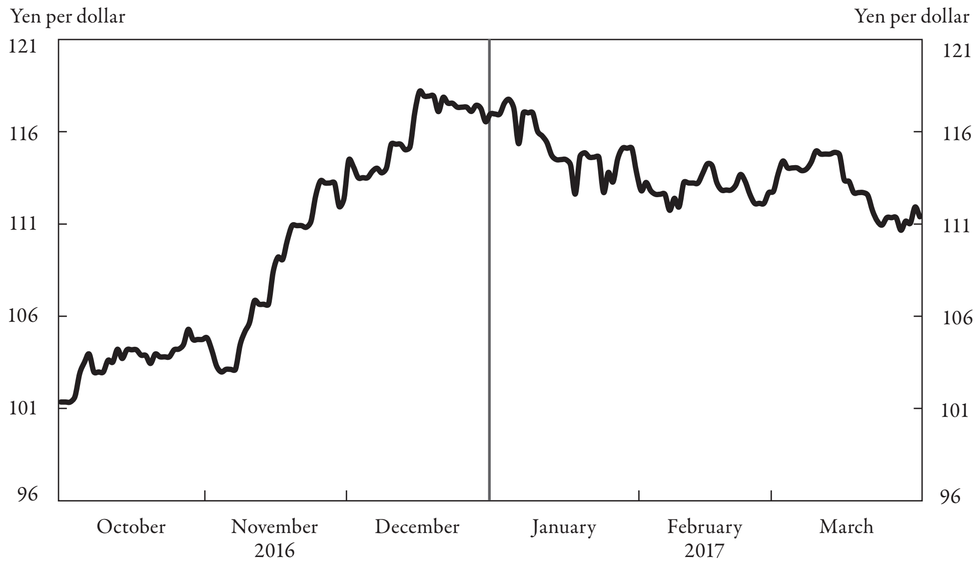
EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3

U.S. DOLLAR–YEN EXCHANGE RATE



Source: Bloomberg L.P.

U.S. DOLLAR DEPRECIATES ON FISCAL POLICY UNCERTAINTY, EXPECTATIONS FOR A GRADUAL PACE OF POLICY NORMALIZATION

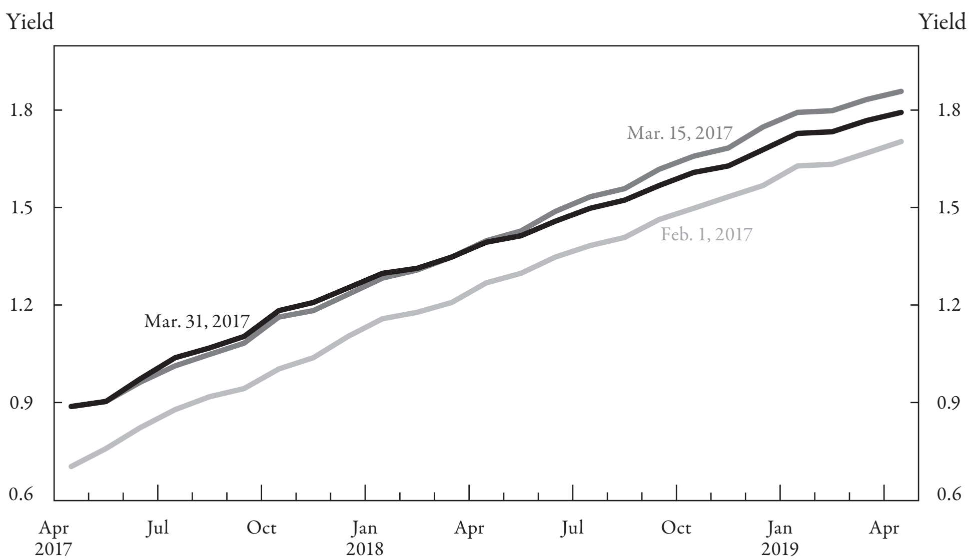
The U.S. dollar depreciated 1.8 percent during the first quarter, as measured by the Federal Reserve Board's trade-weighted major currencies index, partially retracing the notable appreciation observed in the last quarter of 2016. Early in the first quarter, investors began to pare back long U.S. dollar exposures that were established in the wake of the U.S. election in anticipation of expansionary fiscal policy, tax reform, and deregulation. In particular, the dollar broadly depreciated during the quarter amid some signs that these policy proposals could be either pushed back or less comprehensive than initially expected. Market participants also cited comments by U.S. officials about the impact of the dollar's strength on U.S. trade as marginally weighing on the dollar.

U.S. monetary policy developments also had a moderate impact on the dollar. Earlier in the quarter, above-consensus U.S. data including the January Consumer Price Index (CPI) and January retail sales releases, and comments by Federal Reserve officials were cited as notably boosting the probability of an increase in the target range for the federal funds rate at the March FOMC meeting, supporting the dollar.

At its March 14-15 meeting, the FOMC raised the target range for the federal funds rate 25 basis points to 0.75 to 1 percent, as expected. However, the U.S. dollar broadly depreciated and the market-implied path of policy flattened following the FOMC events as many investors had expected the Committee to signal a faster pace of policy tightening given earlier FOMC communications. Additionally, some market participants had anticipated potential increases in the median of FOMC participants' target rate projections in the Summary of Economic Projections, which did not materialize. On net, the March FOMC events shifted market participants' expectations toward a slightly more gradual pace of U.S. policy normalization over the medium term.

Chart 4

MARKET-IMPLIED RATES ON FEDERAL FUNDS FUTURES

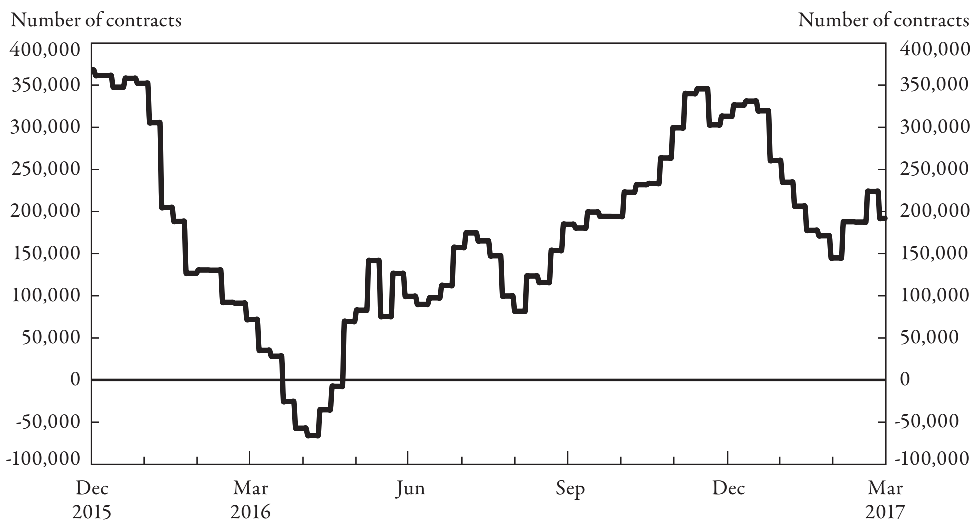


Source: Bloomberg L.P.

Overall, developments during the first quarter prompted investors to partially unwind long U.S. dollar positions established following the U.S. election. This unwinding was reflected in the decline of net-long U.S. dollar positions of noncommercial investors in futures and options markets, according to the Commodity Futures and Trading Commission (CFTC).

Chart 5

NET-LONG U.S. DOLLAR FUTURES AND OPTIONS OUTSTANDING



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

Note: A negative number indicates net-short positioning.

DOLLAR DEPRECIATES AGAINST EURO AMID IMPROVING DATA AND LESS ACCOMMODATIVE ECB COMMUNICATIONS

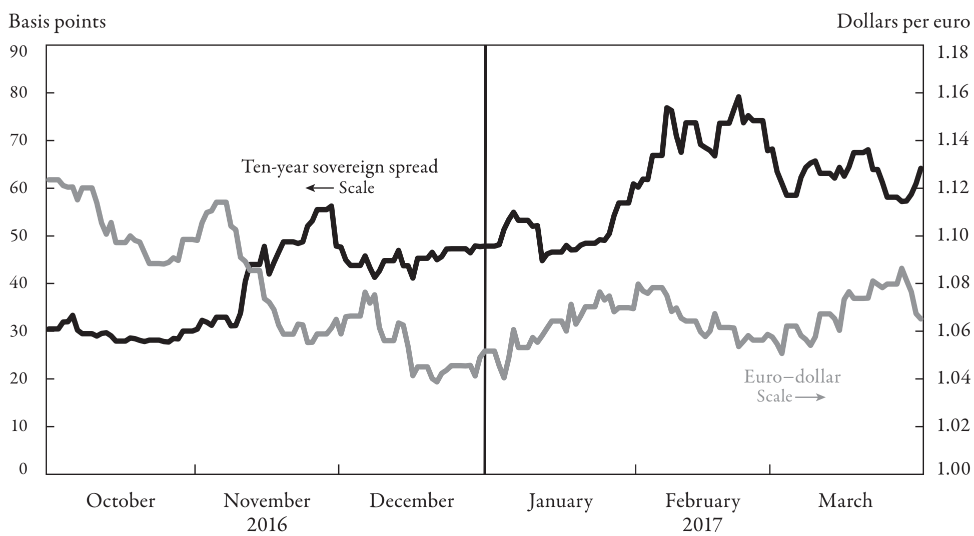
The U.S. dollar depreciated 1.3 percent against the euro during the quarter amid above-consensus euro-area data and some nascent expectations for a less accommodative stance from the European Central Bank (ECB). Heightened concerns about the prospect of election victories by anti-European Union (EU) political candidates, particularly in France, were also in focus during the quarter, though the direct impact on the euro–dollar currency pair from political developments was less pronounced.

The dollar's overall depreciation against the euro occurred amid signs of improving economic conditions and higher inflation in the euro area, as well as increased expectations for a slightly less accommodative stance by the ECB. In particular, ECB policy expectations shifted somewhat on the back of euro-area headline inflation and composite Purchasing Managers' Index data, both of which rose to multi-year highs. At its March meeting, the ECB left its policy stance unchanged, as expected, but comments made at the press conference afterward by President Draghi regarding the economic outlook and forward guidance were viewed by market participants as slightly less accommodative. Following these events, the Euro Overnight Index Average (EONIA) curve steepened and core euro-area sovereign yields increased slightly. However, the euro depreciated modestly toward the end of the quarter as comments by other ECB officials were interpreted as reinforcing expectations that the current ECB deposit rate would likely remain on hold until sometime after the ECB begins tapering its asset purchases. Overall, the euro's net appreciation against the dollar during the quarter occurred amid a narrowing of interest rate differentials, with the ten year U.S.–Germany sovereign yield spread narrowing 18 basis points during the quarter.

Political developments related to the perceived support for anti-EU candidates in some countries, most notably in France, were also in focus during the quarter, but the pricing of this political risk premium was more evident in options markets. In particular, three-month 25-delta risk reversals on the euro–dollar currency pair reached levels not seen since 2012, indicating elevated demand for protection against euro depreciation versus the dollar. The increase in euro-area political risk premium was also reflected in other markets, as the ten-year France–Germany sovereign yield spread and five-year French sovereign credit default swap spread reached their widest levels since 2013. Concerns about the uncertainty of the French election also appeared to affect the Swiss franc, which appreciated to its strongest level against the euro since mid-2015. Swiss sight deposits data, viewed by market participants as a proxy for Swiss National Bank intervention, showed an increase of 33 billion Swiss francs during the quarter to a record 561 billion Swiss francs.

Chart 6

FRANCE–GERMANY SOVEREIGN YIELD SPREAD AND EURO



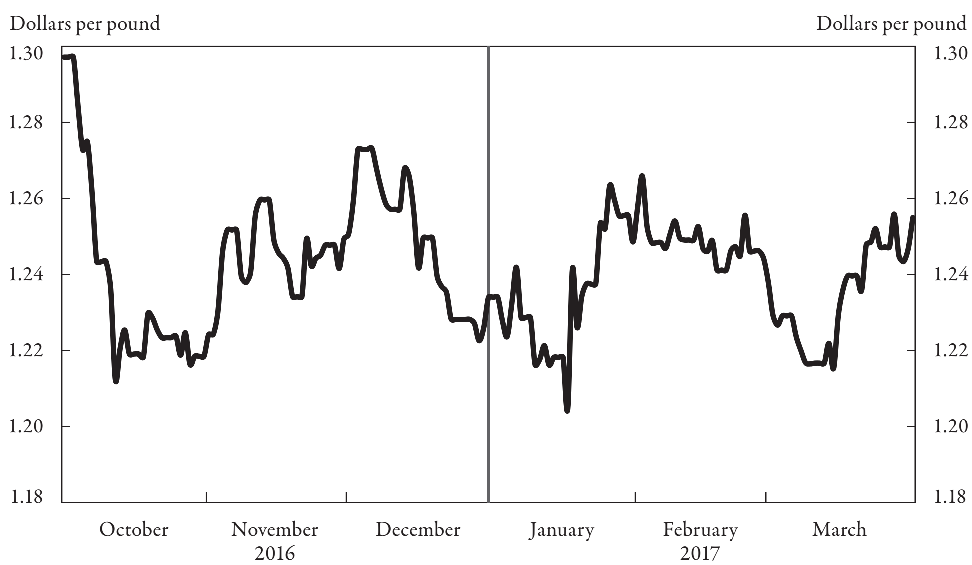
Source: Bloomberg L.P.

DOLLAR DEPRECIATES AGAINST BRITISH POUND AMID LESS ACCOMMODATIVE BANK OF ENGLAND POLICY COMMUNICATIONS AND ABOVE-CONSENSUS DATA

The dollar depreciated 1.7 percent against the British pound over the quarter driven primarily by above-consensus economic data and Bank of England (BOE) communications indicating that a reduction in policy accommodation could come sooner than expected. Earlier in the quarter, the pound appreciated on better-than-expected incoming U.K. economic data releases, including fourth-quarter GDP, December industrial production, and December CPI. At its March meeting, the BOE left its policy stance unchanged, as expected. However, subsequent communication from some Monetary Policy Committee (MPC) members pointed to the potential for a less accommodative stance. In particular, contacts highlighted a dissenting MPC vote in favor of a rate increase, as well as the March BOE minutes, in which some MPC members noted that it would take "relatively little further upside news" on the prospects for activity or inflation to warrant a rate increase. The U.K. government triggered Article 50 of the Lisbon Treaty on March 29, marking the start of negotiations on the United Kingdom's exit from the EU. However, this event was widely expected by market participants and resulted in limited sustained price action in the pound.

Chart 7

BRITISH POUND–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

JAPANESE YEN APPRECIATES AMID DOLLAR WEAKNESS, NARROWER INTEREST RATE DIFFERENTIALS

During the first quarter, the dollar depreciated 4.8 percent against the Japanese yen, partially reversing the sharp appreciation of the dollar observed in late 2016. While market participants attributed the dollar's depreciation against the yen mostly to the aforementioned U.S. factors, investors also remained attentive to monetary policy developments in Japan.

Although the Bank of Japan (BoJ), as expected, left its policy stance unchanged during the quarter, some took notice of the January BoJ quarterly Outlook for Economic Activity and Prices report, in which 2017 and 2018 GDP forecasts were revised higher. Ahead of the January BoJ meeting, some market participants debated whether the curtailment of monetary policy accommodation could occur sooner than expected, but BoJ officials reiterated their support for the current pace of monetary base expansion and the yield curve control framework. Moves in the dollar–yen currency pair were most pronounced later in the quarter as interest rate differentials narrowed sharply following the March FOMC meeting, with the ten-year U.S.–Japanese sovereign yield spread narrowing roughly 20 basis points in late March.

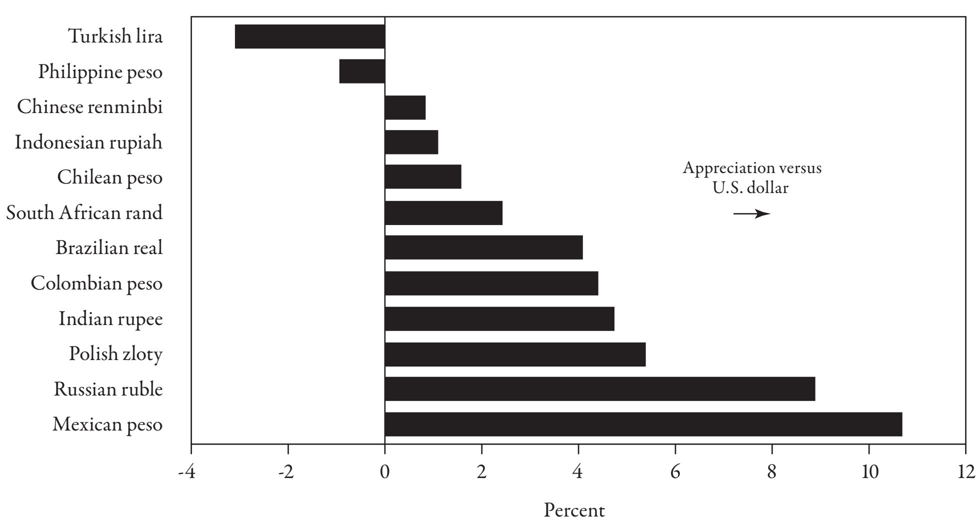
In line with the yen moves, futures and options data on Japanese yen positions of noncommercial investors on the Chicago Mercantile Exchange showed a partial reversal from the net-short yen positions observed in the last quarter of 2016.

EMERGING MARKET CURRENCIES APPRECIATE AMID IMPROVING GLOBAL ECONOMIC DATA

In the first quarter, the dollar depreciated against most emerging market currencies, largely offsetting the dollar gains observed following the U.S. election. Improving global economic data, particularly in China, and the dollar's broader depreciation amid renewed expectations for a gradual path of U.S. policy were cited as supporting emerging market assets. Option-implied emerging market currency volatility declined over the quarter, improving the attractiveness of higher-yielding emerging market currencies such as the Mexican peso, Russian ruble, and Brazilian real, which appreciated between 4.1 and 10.7 percent against the dollar. Consistent with demand for emerging market currencies, available portfolio flow data indicated substantial allocation to emerging market assets over the quarter.

Chart 8

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



Source: Bloomberg L.P.

The Mexican peso outperformed all other currencies during the quarter, appreciating 10.7 percent against the dollar, after experiencing a notable depreciation in the previous quarter. The Mexican peso's appreciation was attributed to a few distinct factors, including improved investor sentiment over the future of U.S.–Mexico trade dynamics, and actions by the Mexican monetary authorities. First, some contacts noted a possible shift in tone regarding the U.S. administration's stance toward the North American Free Trade Agreement (NAFTA). Specifically, remarks from U.S. officials in support of a constructive renegotiation of NAFTA, instead of a withdrawal from the agreement, contributed to the reduction of risk premium on the peso. Second, the peso was supported by two separate rate hikes by the Banco de México (BdM) during the period. The BdM raised its policy rate by a cumulative 75 basis points, to a level of 6.5 percent, furthering the peso's attractiveness from an interest rate perspective. Finally, on February 21, Mexican authorities announced a program to provide U.S. dollar exposure through non-deliverable forward contracts, amounting to a notional value of up to $20 billion, settled in pesos. Mexican officials noted that this program is expected to help alleviate demand for U.S. dollar hedges both from corporates with U.S. dollar debt and investors who wish to hedge their position in local currency assets.

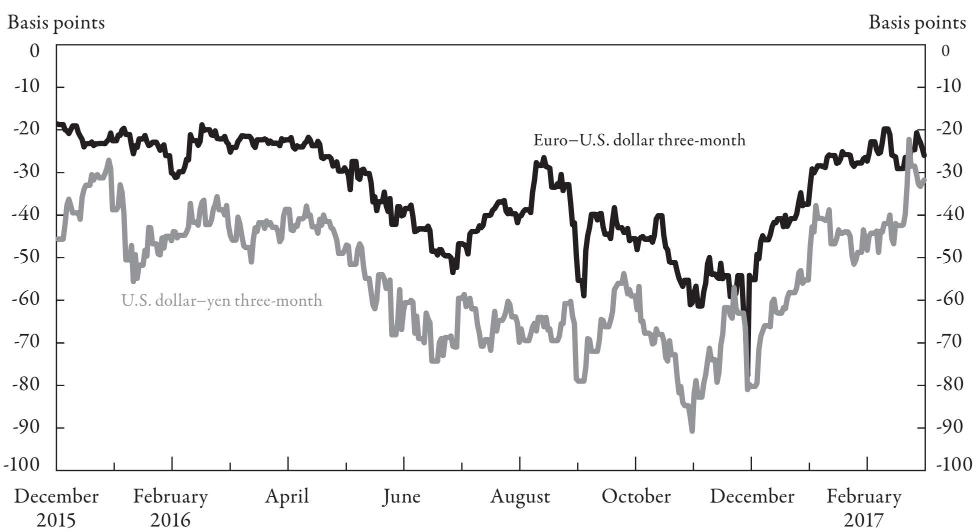
The Chinese renminbi appreciated 0.8 percent against the dollar during the quarter amid improving data and policy actions by the People's Bank of China's (PBoC). Specifically, the combination of the multi-quarter trend of above-consensus economic data and stricter enforcement of existing capital controls was among the main factors cited by market participants as supportive of the renminbi. Some contacts also linked the renminbi's relative stability against the dollar to the PBoC's decision to increase rates on its various open market operation facilities. However, estimates by market participants suggested that foreign exchange (FX) intervention by the PBoC was low owing to the relatively subdued renminbi selling pressure observed during the quarter. On the whole, renminbi moves were generally consistent with the PBoC goal of broad onshore renminbi stability against a trade-weighted basket of currencies and increased flexibility against the U.S. dollar, despite the incremental tightening of capital controls.

FOREIGN EXCHANGE SWAP BASIS SPREAD NARROWS DURING THE QUARTER

In the first quarter, FX swap basis spreads of key U.S. dollar currency pairs narrowed. The moves reversed some of the widening observed since May 2016, following the passage of year-end and a reduction in uncertainty over the implementation of U.S. money market reform. According to market contacts, reduced demand for U.S. dollar funding from non-U.S. banks and nonbank investors, particularly Japanese firms, contributed to a narrowing of the FX swap basis during the quarter.[1] Market participants also noted that less volatility was observed at the end of the first quarter relative to previous quarter-ends, driven by reduced demand for dollar funding and perceived improvement in liquidity management by banks.

Chart 9

FX SWAP-IMPLIED BASIS SPREADS



Source: Bloomberg L.P.

[1] The FX swap basis represents the premium to borrowing U.S. dollars in the FX swap market, vis-à-vis foreign currency, relative to the London Interbank Offered Rate.

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 (ESF) foreign-currency-denominated assets totaled $20 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account (SOMA) holdings of foreign-currency-denominated assets totaled $20.1 billion, also comprised of euro and yen holdings.

Foreign Exchange Reserve Holdings

The U.S. monetary authorities invest their foreign currency reserves, which are held in the SOMA and the 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.

The Open Market Trading Desk of the Federal Reserve Bank of New York (the Desk) utilizes an investment framework for the management of the foreign currency assets. The framework involves a routine affirmation of objectives and constraints from policymakers. The Desk then utilizes an investment approach designed to meet those objectives to maximize return subject to maintaining sufficient liquidity and a high degree of safety.

In terms of the composition of foreign currency reserves, a significant portion of the U.S. monetary authorities' foreign exchange reserves remained invested on an outright basis in German, French, Dutch, and Japanese government securities. 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 March 31, the euro reserves held by both the SOMA and ESF totaled $23.3 billion, an increase from $23 billion owing to translation effects as the dollar depreciated against the euro. Cash held in euro-denominated deposits at official institutions increased to $9.3 billion from $8.4 billion, while direct holdings of euro-denominated government securities decreased to $14 billion from $14.6 billion. The amount of yen-denominated deposits and government securities held by the SOMA and ESF increased to $16.8 billion at quarter-end from $16 billion, which was mostly attributable to depreciation of the dollar against the yen.

Consistent with the current Authorization for Foreign Currency Operations, the Desk conducts small-value exercises for the foreign currency reserves as a matter of prudent advance planning. No inference about policy should be drawn from these exercises. In the first quarter, the Desk entered into a small-value euro-denominated repurchase agreement and conducted a small-value sale of a euro-denominated security.

Liquidity Swap Arrangements with Foreign Central Banks

As of March 31, the ECB had $4.5 billion and the BoJ had $550 million of swaps in seven-day transactions outstanding. The Bank of Canada, BOE, and Swiss National Bank did not have any dollar swaps outstanding at the end of the quarter.[2]

[2] The Desk performed small-value liquidity swap exercises with foreign central banks to test operational readiness, as it does annually. Specifically, in the first quarter of 2017, the Desk drew a small amount of euros and Canadian dollars from the standing liquidity swap arrangements with the ECB and the Bank of Canada, respectively. See https://www.newyorkfed.org/markets/opolicy/operating_policy_141021.html and https://www.newyorkfed.org/markets/opolicy/operating_policy_131212.html. Draws on the standing liquidity swap arrangements, including for small-value exercises, are released weekly on the Federal Reserve Bank of New York's website.

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, 2016[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, March 31, 2017[a]
Federal Reserve System Open Market Account (SOMA)						
Euro	11,520	0	(3)	0	159	11,677
Japanese yen	8,000	0	1	0	386	8,387
Total	19,520	0	(2)	0	545	20,063

		Changes in Balances by Source				
	Carrying Value, December 31, 2016[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, March 31, 2017[a]
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	11,502	0	(3)	0	159	11,659
Japanese yen	8,000	0	1	0	386	8,387
Total	19,503	0	(2)	0	545	20,045

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, as well as 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, 2017

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets	**11,658.5**	**11,676.7**
Cash held on deposit at official institutions	4,646.6	4,664.8
Marketable securities held outright	7,011.9	7,011.9
German government securities	1,750.9	1,750.9
French government securities	3,768.6	3,768.6
Dutch government securities	1,492.5	1,492.5
Japanese-yen–denominated assets	**8,386.6**	**8,386.5**
Cash held on deposit at official institutions	5,433.1	5,433.1
Marketable securities held outright	2,953.5	2,953.5
Reciprocal currency arrangements		
European Central Bank[b]		4,525
Bank of Japan[b]		550
Swiss National Bank[b]		0
Bank of Canada[b]		0
Bank of England[b]		0
Banco de México[b]		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 26.31 and 26.35 months, respectively; the yen SOMA and ESF portfolios both had Macaulay durations of 6.76 months.

[b] 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 March 31, 2017
	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	4,525
Swiss National Bank	No preset limit	0
Bank of Japan	No preset limit	550
Bank of Canada	No preset limit	0
Bank of England	No preset limit	0
	No preset limit	5,075
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