TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

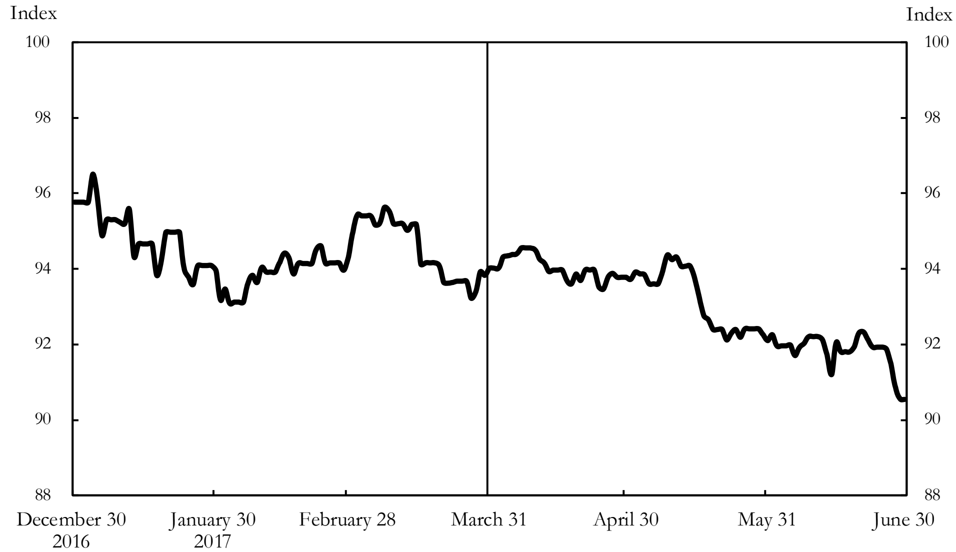
April – June 2017

In the second quarter of 2017, the U.S. dollar, as measured by the Federal Reserve Board's trade-weighted major currencies index, declined 3.7 percent. The depreciation of the dollar reversed much of the strengthening that had occurred following the U.S. election, and came amid uncertainty regarding the implementation of expansionary U.S. fiscal policy, below-consensus domestic economic data, and international developments. The dollar depreciated 6.8 percent against the euro and 3.8 percent against the British pound, though it appreciated 0.9 percent against the Japanese yen. The dollar also depreciated against most emerging market currencies during the quarter, including by 3.2 percent against the Mexico peso and 1.5 percent against the Chinese renminbi, driven in part by improving global economic data amid low financial market volatility. 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 2017. Pertshuhi Torosyan was primarily responsible for preparation of the report.

Chart 1

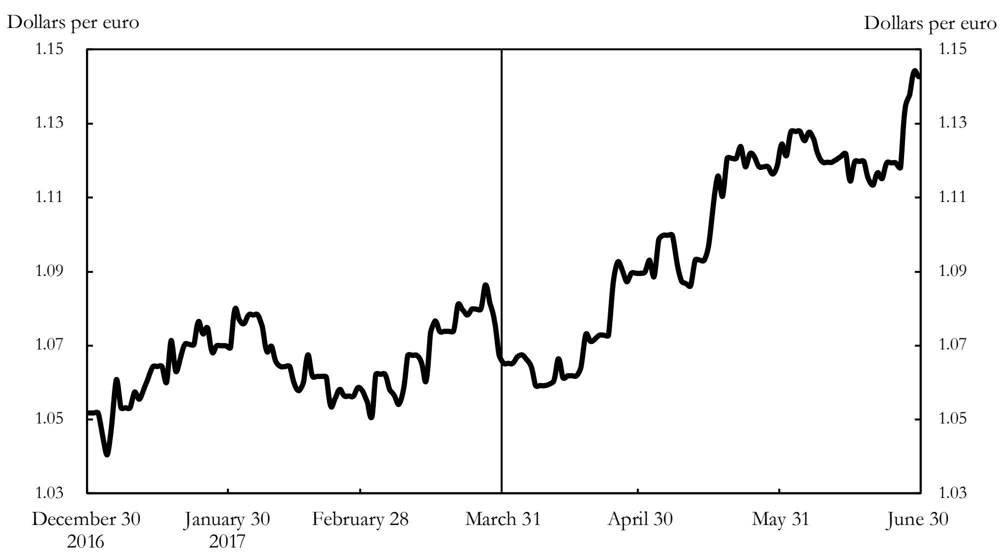
MAJOR CURRENCY TRADE-WEIGHTED U.S. DOLLAR



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

Chart 2

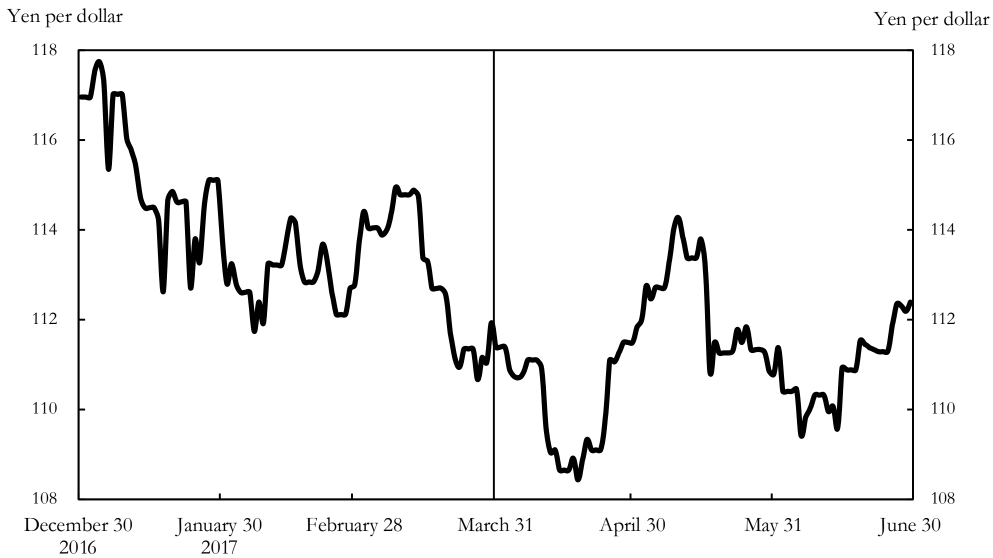
EURO–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3

U.S. DOLLAR–YEN EXCHANGE RATE



Source: Bloomberg L.P.

U.S. DOLLAR DEPRECIATES AMID FISCAL POLICY UNCERTAINTY AND WEAKER DATA

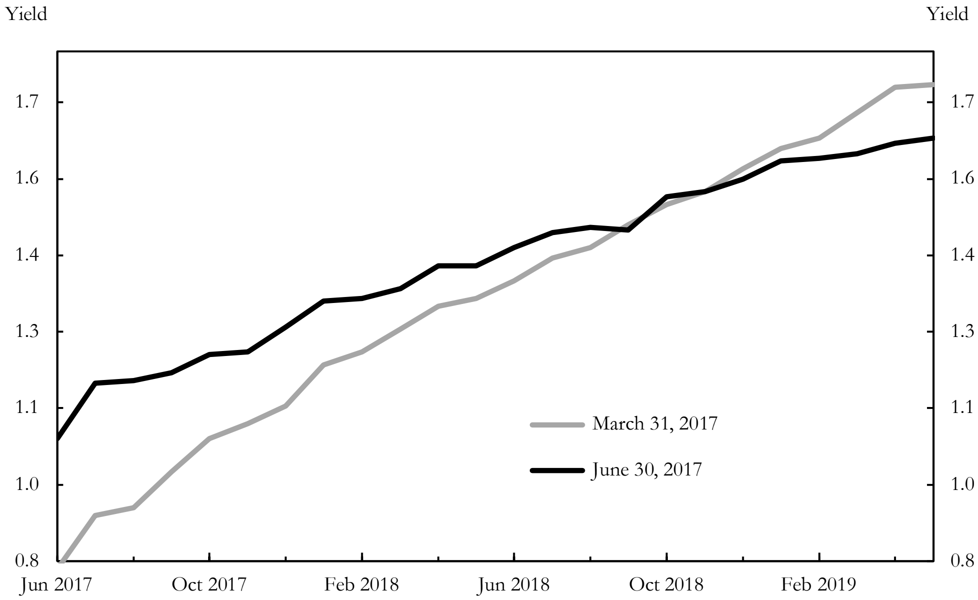
The U.S. dollar depreciated 3.7 percent during the second quarter, as measured by the Federal Reserve Board's trade-weighted major currencies index, continuing the depreciation trend observed in the first quarter of 2017. On the domestic front, investors continued to pare back long U.S. dollar exposures that were established in the wake of the U.S. presidential 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 tempered.

Domestic data were also cited as contributing to dollar weakness throughout the quarter, with market participants revising their 2017 U.S. growth outlooks downward, according to Bloomberg consensus forecasts. Following the May consumer price index (CPI) data release, which was the third consecutive below-consensus print on a year-over-year basis, nominal Treasury yields declined as much as 6 basis points. The Employment Situation Reports throughout the quarter generally showed smaller-than-expected increases in nonfarm payrolls, while the unemployment rate decreased to 4.3 percent and annual average hourly earnings grew at a decelerating rate over the quarter. Other economic data were generally characterized as mixed.

At its June 13-14 meeting, the Federal Open Market Committee (FOMC) raised the target range for the federal funds rate 25 basis points to 1 to 1.25 percent and provided further detail regarding balance sheet normalization, largely as expected. Contacts characterized other FOMC communications as reflecting less concern on the part of the Committee than some had anticipated regarding recent below-forecast inflation data. The dollar appreciated following the June FOMC events but was on net little changed on the day, mostly retracing its earlier broad depreciation in reaction to the below-consensus inflation data. Taken together, these factors were viewed as modestly supportive of a flattening in the path of the policy rate over the quarter, and served as a headwind to the dollar more broadly.

Chart 4

MARKET-IMPLIED RATES ON FEDERAL FUNDS FUTURES



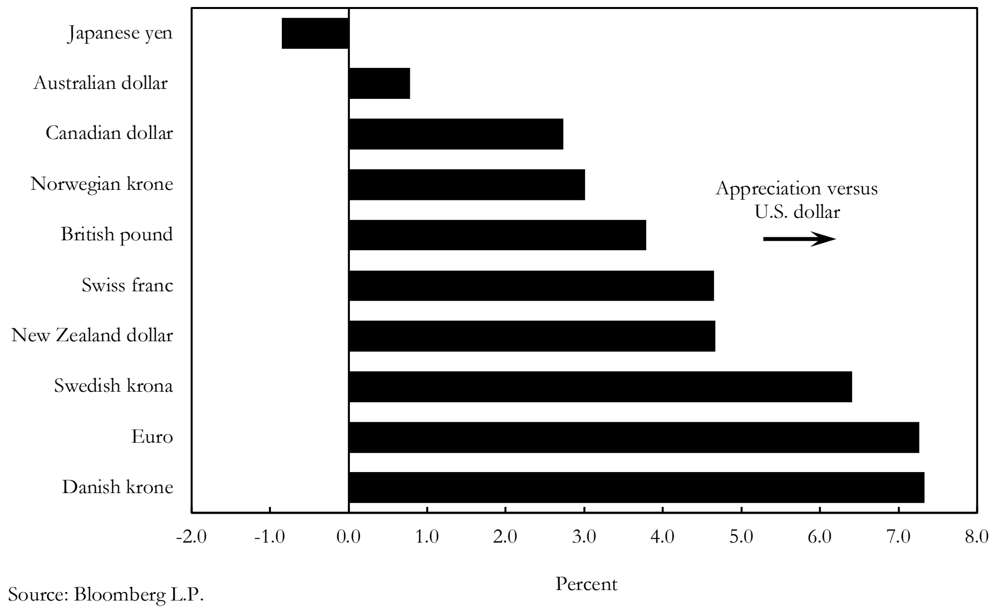
Source: Bloomberg L.P.

DOLLAR DEPRECIATES AGAINST SEVERAL G-10 CURRENCIES ON LESS ACCOMMODATIVE CENTRAL BANK COMMUNICATION ABROAD

Market participants were also highly attuned to international developments as driving currency markets. Notably, signals that other central banks may remove monetary accommodation sooner than previously expected weighed on the dollar on a bilateral basis. In particular, communications from the European Central Bank (ECB), the Bank of England (BOE), and the Bank of Canada (BoC) caused investors to reconsider the interest rate outlooks in their respective economies. This reassessment contributed to the dollar's 6.8, 3.8, and 2.7 percent depreciation against the euro, British pound, and Canadian dollar, respectively, during the quarter.

Chart 5

U.S. DOLLAR PERFORMANCE AGAINST G-10 CURRENCIES DURING THE SECOND QUARTER



Source: Bloomberg L.P.

The U.S. dollar depreciated 6.8 percent against the euro during the quarter amid signs of a shifting ECB policy stance. At its April and June meetings, the ECB left its policy stance unchanged, as expected. However, comments by President Draghi later in the quarter were viewed as signaling a willingness to look past subdued inflationary pressures and begin tapering ECB balance sheet expansion in early 2018. While short-tenor market-implied policy rates and yields were little changed following these remarks, forward rates and longer-dated core euro-area sovereign yields increased, with the ten-year U.S.–Germany sovereign yield spread narrowing 20 basis points during the quarter, driven by a combination of declining U.S. yields and increasing German yields.

In the United Kingdom, the dollar depreciated 3.8 percent against the British pound on BOE communications that were perceived as suggesting an earlier-than-anticipated rate hike.

As expected, the BOE left its policy stance unchanged at its Monetary Policy Committee (MPC) meetings during the quarter. However, the greater-than-expected numbers of MPC members voting for a rate increase in June as well as comments in that meeting's minutes revealing concerns about domestic inflationary pressure were perceived by contacts as an indication that a policy rate increase could come sooner than previously thought. Following the June MPC meeting, the market-implied probability of a 25 basis point rate increase by year-end rose to roughly 30 percent from less than 5 percent, and gilt yields increased by up to 9 basis points, with both developments being supportive of the pound. The pound further appreciated following remarks by Governor Carney and Chief Economist Haldane that were perceived by market participants as a shift away from their earlier accommodative stance. In particular, market participants were attentive to Governor Carney's remarks that some removal of accommodation may be necessary if the trade-off facing the MPC of supporting growth and employment at the cost of stabilizing inflation becomes too costly and the policy decision accordingly becomes more conventional.

Finally, the U.S. dollar depreciated 2.7 percent against the Canadian dollar during the quarter. Market participants were attentive to Bank of Canada Governor Poloz's remarks that some removal of stimulus may be necessary if spare capacity continues to erode. Market-implied expectations for a 25 basis point rate hike at the BoC's July meeting shifted from 40 percent to 70 percent following his remarks, while yields on Canadian government bonds increased as much as 7 basis points, which was supportive of the Canadian dollar.

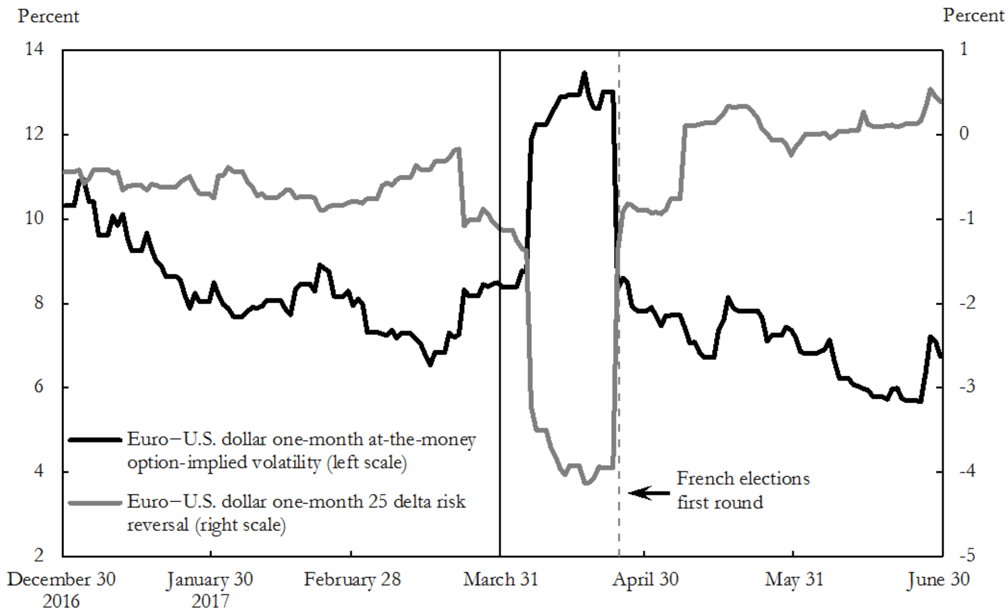
EUROPEAN POLITICAL DEVELOPMENTS DRIVE INTRAQUARTER VOLATILITY

In addition to shifting monetary policy communication, currency investors were keenly focused on European political developments during the quarter, specifically in France and the United Kingdom. This attention led to some intraquarter volatility in the euro and British pound, though the net moves were modest.

In France, heightened concerns about the prospect of election victories of anti-European Union (EU) candidates diminished following the first round of French elections on April 23, the results of which suggested victory for the pro-EU political candidate. Following the first round of the elections, one-month option-implied volatility on the euro–dollar currency pair declined to 8 percent from a year-to-date peak of 13 percent, and one-month 25-delta risk reversals on the euro–dollar currency pair retraced from historic lows, indicating declining demand for protection against euro depreciation versus the dollar. Other European financial assets also reflected an improvement in risk sentiment, as the ten-year France–Germany sovereign yield spread and five-year French sovereign credit default spread narrowed notably.

Chart 6

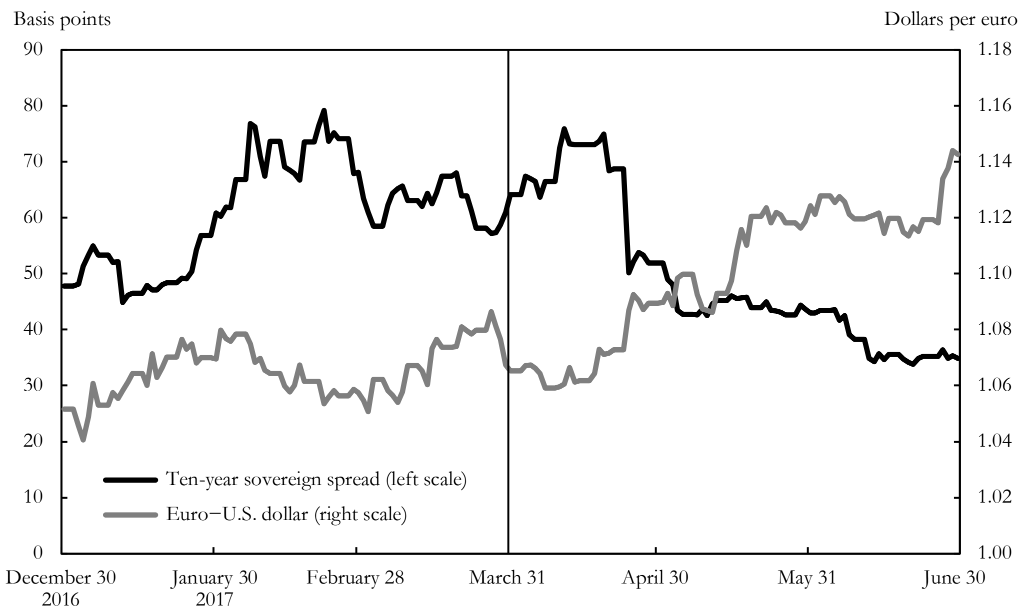
EURO–DOLLAR OPTION-IMPLIED VOLATILITY AND RISK REVERSAL



Source: Bloomberg L.P.

Chart 7

FRANCE−GERMANY SOVEREIGN YIELD SPREAD AND EURO

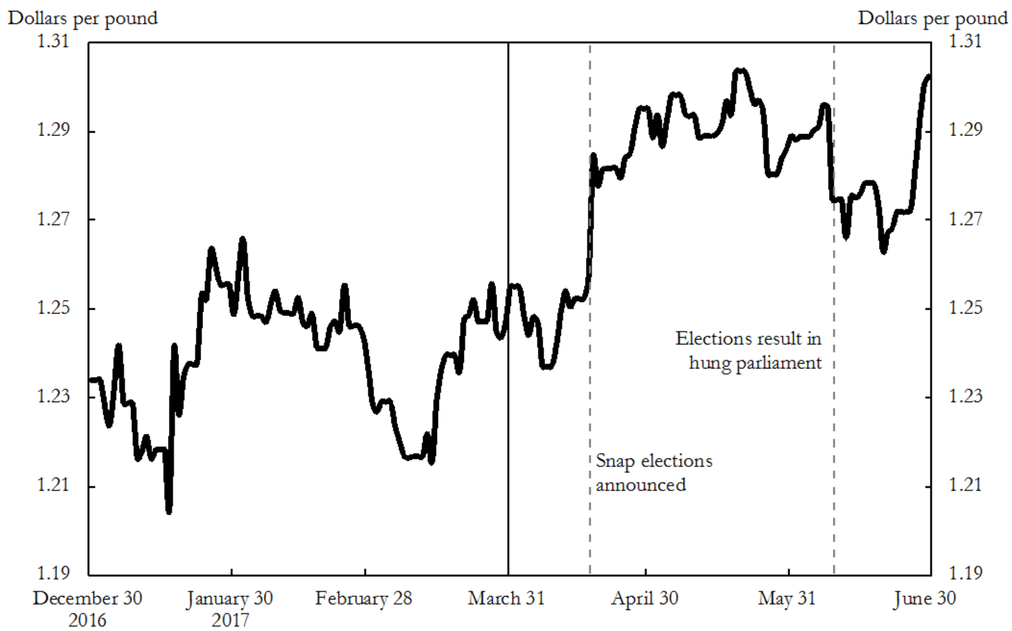


Source: Bloomberg L.P.

Political developments in the United Kingdom were also in focus, contributing to modest realized pound volatility during the quarter. The pound appreciated 2 percent on the April announcement that snap parliamentary elections would be held June 8. This development was viewed as increasing the likelihood of an expanded Conservative Party majority that could potentially strengthen the United Kingdom's "Brexit" negotiation position. However, the Conservative Party lost its majority, resulting in the pound mostly retracing its earlier appreciation. Market participants interpreted the election results as increasing political uncertainty and possibly negatively affecting the United Kingdom's stance in future "Brexit" negotiations.

Chart 8

BRITISH POUND–U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

JAPANESE YEN WEAKENS SLIGHTLY AGAINST THE DOLLAR, REFLECTING STABLE INTEREST RATE DIFFERENTIALS

During the second quarter, the dollar appreciated 0.9 percent against the Japanese yen amid broadly unchanged Japan–U.S. interest rate differentials. The Bank of Japan (BoJ) left its policy stance unchanged, as expected, and continued to reiterate support for the current pace of monetary base expansion as well as the maintenance of the yield-curve control framework. Market participants expect continued tightening of the Japanese labor market this year in the midst of an economic upswing supported by a pickup in global demand for Japanese exports and fiscal stimulus. Nonetheless, the pass-through to inflation remains muted, with Japanese headline CPI printing at just 0.4 percent year-over-year in June, well below the BoJ's 2 percent target.

EMERGING MARKET CURRENCIES APPRECIATE AMID IMPROVING GLOBAL ECONOMIC DATA AND LOW FINANCIAL MARKET VOLATILITY

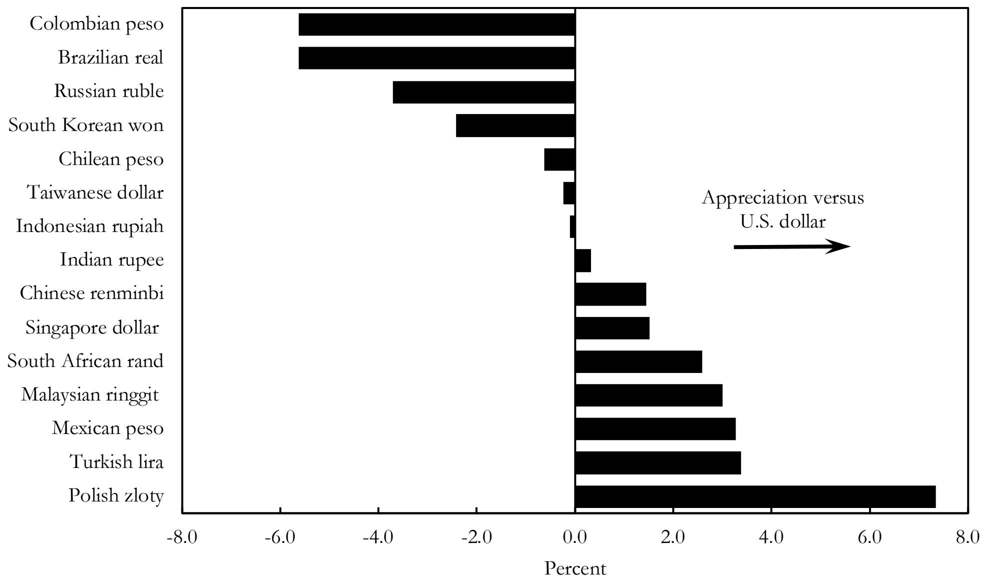
In the second quarter, the dollar depreciated on net against most emerging market currencies, continuing the trend observed in the first quarter of 2017. Improving global economic data releases, including stronger exports and purchasing managers' index (PMI) prints, and the overall decline in financial market volatility were cited as supporting emerging market assets. Options-implied emerging market currency volatility declined over the quarter on net. Portfolio flow data indicated a substantial allocation to emerging market assets by global investors over the quarter. Market participants attributed the increased flows to the higher yields offered by many emerging market currencies, such as the Turkish lira, Mexican peso, and South African rand.

Of note, the U.S. dollar depreciated 3.2 percent against the Mexican peso, continuing the retracement of its appreciation in 2016. The peso's strength was primarily driven by the two Banco de México rate hikes during the quarter, above-consensus economic data, a decline in political risk premium following regional elections in June, and the continued shift in market participants' views that there will be a constructive renegotiation of the North American Free Trade Agreement (NAFTA).

In contrast, the dollar appreciated 6 percent against the Brazilian real, on net, reflecting an increased political risk premium. Market participants noted allegations of possible misconduct involving Brazil's current administration, which cast doubt among investors on the government's ability to pass structural reforms, including the anticipated overhaul of the pension system. The real's depreciation reportedly prompted Brazil's central bank to intervene in foreign-exchange markets for a total notional value of $10 billion in nondeliverable forwards settling in local currency. The 9 percent decline in Brent crude oil prices over the quarter was also cited as contributing to the depreciation of the Brazilian real, along with other commodity-linked currencies such as the Russian ruble and the Colombian peso.

Chart 9

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



Source: Bloomberg L.P.

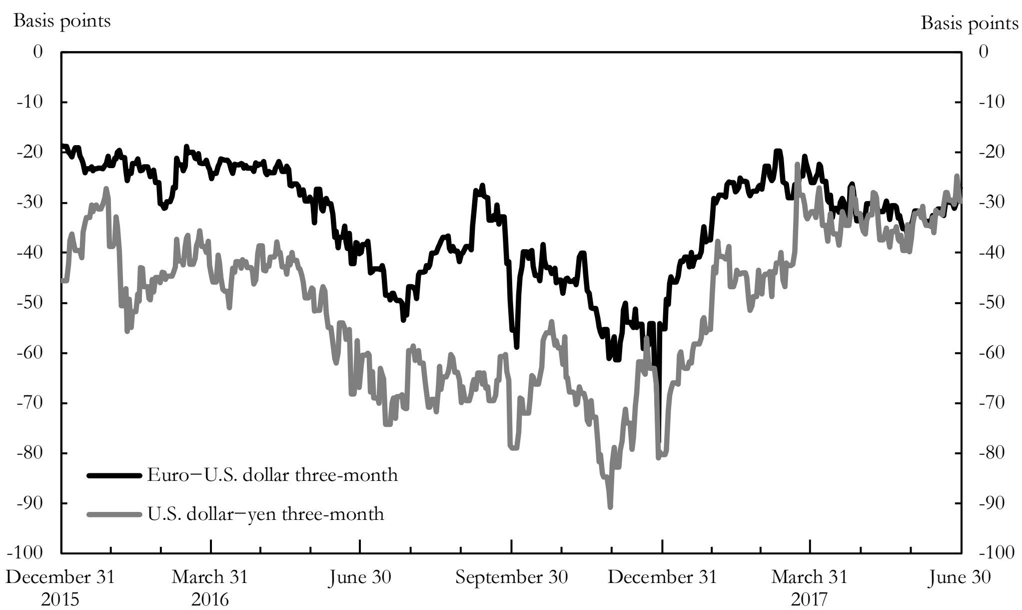
Finally, the U.S. dollar depreciated 1.5 percent against the Chinese renminbi, with episodes of pronounced renminbi strengthening in late May and late June, which market participants broadly attributed to official intervention in support of the renminbi. The renminbi strengthened more modestly, by 0.4 percent, against the China Foreign Exchange Trading System's (CFETS) trade-weighted basket of currencies, which contacts noted was consistent with the People's Bank of China's (PBoC's) stated goal of relative stability against a basket of currencies. The currency's strength was observed against a backdrop of widening interest rate differentials vis-à-vis the United States, as well as relatively stable economic growth and tighter capital controls. In relation to the PBoC's policy framework, in late May the central bank announced that it planned to incorporate a "countercyclical adjustment factor" in its recommended formula for the calculation of the daily dollar–renminbi fixing rate, which establishes the midpoint of the currency's daily trading band with the dollar. The adjustment is aimed at dampening the impact of excess volatility in the spot market, with many observers viewing the change as formalizing an element of discretion that was incorporated into the previous fixing rate mechanism.

FOREIGN EXCHANGE SWAP BASIS SPREADS REMAIN STABLE DURING THE QUARTER

During the second quarter, foreign-exchange swap basis spreads of key U.S. dollar currency pairs remained relatively stable given a continuation of less stretched supply and demand dynamics for dollar funding compared with the second half of last year.[1] Consistent with this stability, trading conditions in foreign-exchange swap markets at the June quarter-end were reportedly orderly and similar to the prior quarter-end, driven also by perceived improvement in dollar liquidity management by banks.

Chart 10

FX SWAP-IMPLIED BASIS SPREADS



Source: Bloomberg L.P.

[1] A negative foreign-exchange swap basis spread represents the premium to borrowing U.S. dollars in the foreign-exchange swap market, vis-a-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 June 30, the value of the U.S. Treasury's Exchange Stabilization Fund (ESF) foreign-currency-denominated assets totaled $20.7 billion, comprised of euro and yen holdings. The Federal Reserve System Open Market Account (SOMA) holdings of foreign-currency-denominated assets totaled $20.8 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 June 30, the euro reserves held by both the SOMA and ESF totaled $24.9 billion, an increase from $23.3 billion owing to foreign exchange translation effects as the dollar depreciated against the euro. Cash held in euro-denominated deposits at official institutions increased to $10.7 billion from $9.3 billion, while direct holdings of euro-denominated government securities increased to $14.2 billion from $14 billion. The amount of yen-denominated deposits and government securities held by the SOMA and the ESF decreased to $16.6 billion at quarter-end from $16.8 billion, which was mostly attributable to appreciation 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 second quarter, the Desk entered into a small-value euro-denominated repurchase agreement and a small-value euro-denominated reverse repurchase agreement, and conducted a small-value sale of a yen-denominated security.

Liquidity Swap Arrangements with Foreign Central Banks

As of June 30, the ECB had $3.1 billion of swaps and the BoJ had $10 million in seven-day transactions outstanding. The BoC, the BOE, and the Swiss National Bank did not have any dollar swaps outstanding at the end of the quarter.[2]

[2] The Desk annually performs small-value liquidity swap exercises with foreign central banks to test the operational readiness of the standing liquidity swap lines. Specifically, in the second quarter of 2017, the Desk drew a small amount of Swiss francs from the standing U.S. dollar liquidity swap line with the Swiss National Bank. See https://apps.newyorkfed.org/markets/autorates/fxswap. 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, March 31, 2017[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, 2017[a]
Federal Reserve System Open Market Account (SOMA)						
Euro	11,677	0	(4)	0	778	12,451
Japanese yen	8,387	0	1	0	(74)	8,313
Total	20,063	0	(4)	0	704	20,764

		Changes in Balances by Source				
	Carrying Value, March 31, 2017[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, 2017[a]
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	11,659	0	(4)	0	777	12,431
Japanese yen	8,387	0	1	0	(74)	8,313
Total	20,045	0	(3)	0	703	20,744

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 June 30, 2017

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets	**12,431.2**	**12,450.5**
Cash held on deposit at official institutions	5,353.2	5,372.6
Marketable securities held under repurchase agreements[b]	0.0	0.0
Marketable securities held outright	7,077.9	7,077.9
German government securities	1,801.2	1,801.2
French government securities	3,686.2	3,686.2
Dutch government securities	1,590.5	1,590.5
Japanese yen-denominated assets	**8,313.3**	**8,313.3**
Cash held on deposit at official institutions	5,948.6	5,948.6
Marketable securities held outright	2,364.7	2,364.7
Reciprocal currency arrangements		
European Central Bank[c]		3,060
Bank of Japan[c]		10
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 SOMA and ESF euro portfolios had Macaulay durations of 24.62 and 24.65 months, respectively; both the SOMA and ESF yen portfolios had Macaulay durations of 5.78 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, 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	3,060
Swiss National Bank	No preset limit	0
Bank of Japan	No preset limit	10
Bank of Canada	No preset limit	0
Bank of England	No preset limit	0
	No preset limit	3,070
Standing foreign currency liquidity swap arrangements		
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