TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE OPERATIONS

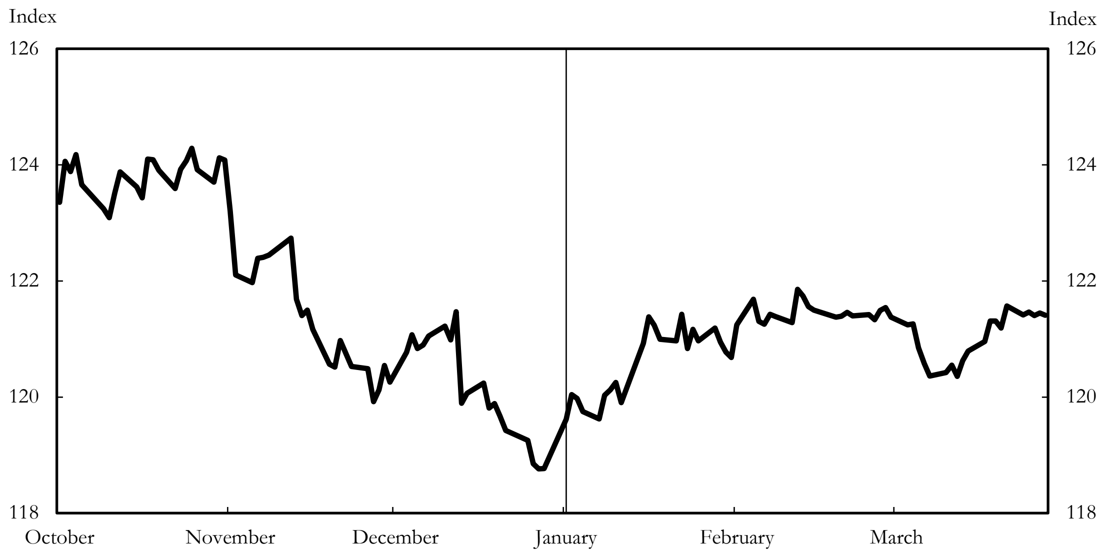
January - March 2024

During the first quarter of 2024, the U.S. dollar, as measured by the Federal Reserve Board's broad trade-weighted dollar index, appreciated 2.2 percent on net. The dollar appreciated broadly against most advanced and emerging market currencies, driven largely by U.S. economic data that suggested slower inflation deceleration and stronger growth, compared both to expectations and other jurisdictions, and Federal Open Market Committee communications that contributed to a significant upward repricing of the Federal Reserve's path of policy. These developments drove a notable increase in nominal U.S. Treasury yields, which contributed to a widening of interest rate differentials against most other advanced economies. In contrast, economic data in other jurisdictions, particularly the euro area, were weaker in comparison to the U.S., while official communications and decisions from several other major central banks were interpreted as more accommodative than expected. Notably, the dollar appreciated by 7.1 percent and 7.3 percent against the Swiss franc and Japanese yen, respectively, as U.S. interest rate differentials widened relative to those currencies. Elsewhere, the dollar appreciated against most major emerging market currencies, with the exception of the Mexican peso. The Federal Reserve and U.S. Treasury did not intervene in foreign exchange markets during the quarter.

This report, presented by Roberto Perli, Federal Reserve Bank of New York System Open Market Account Manager, 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 2024. Rosie Levy was primarily responsible for preparation of the report.

Chart 1

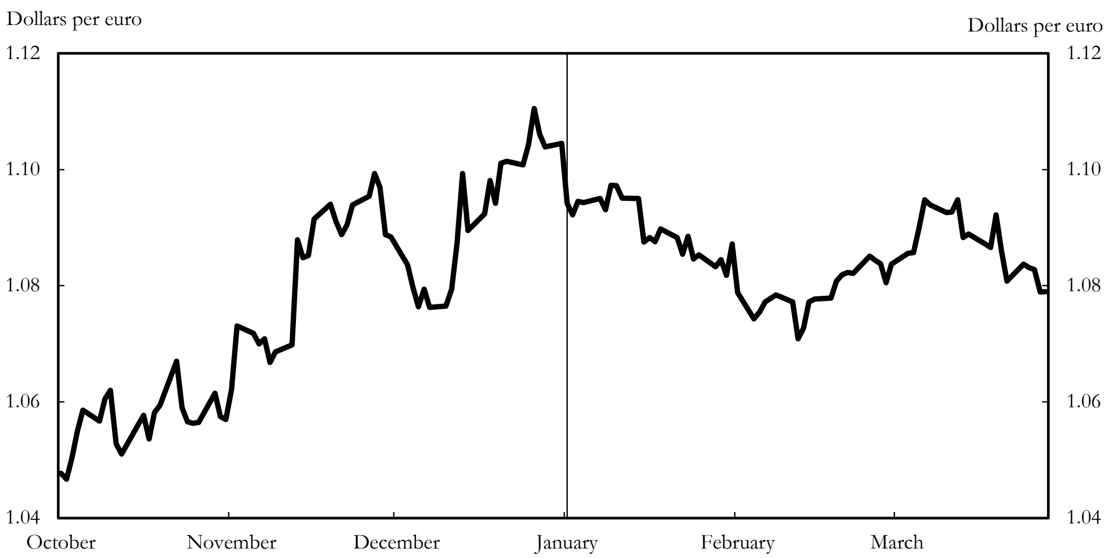
BROAD TRADE-WEIGHTED U.S. DOLLAR INDEX



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

Chart 2

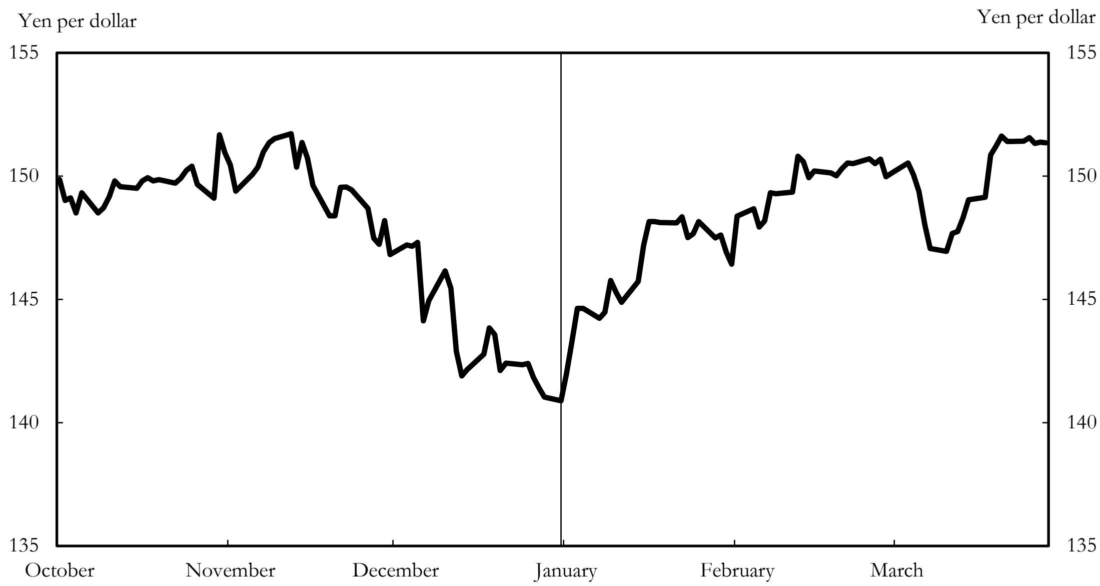
EURO−U.S. DOLLAR EXCHANGE RATE



Source: Bloomberg L.P.

Chart 3

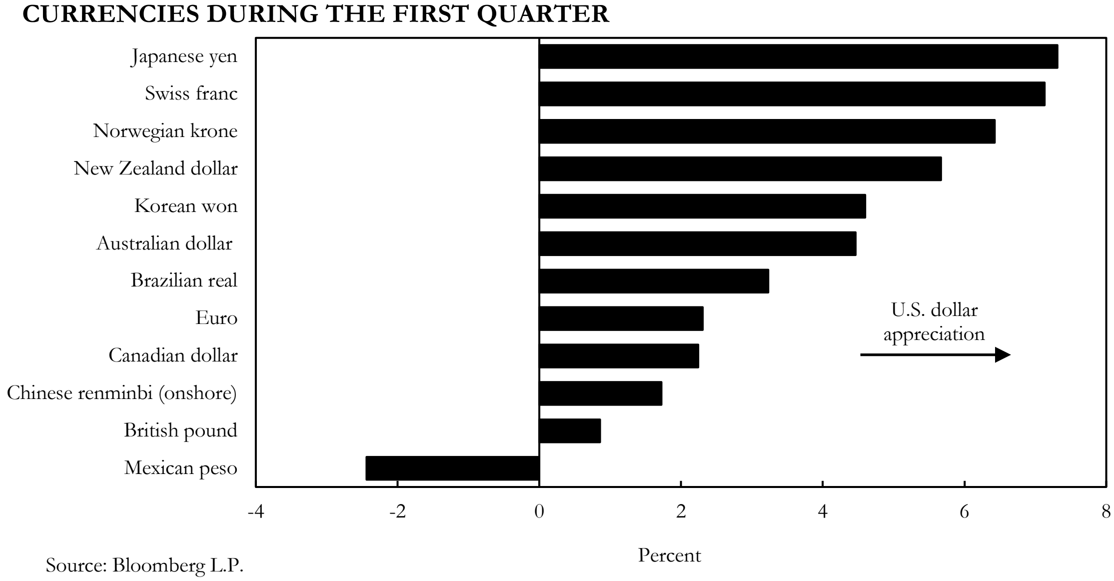
U.S. DOLLAR–YEN EXCHANGE RATE



Source: Bloomberg L.P.

Chart 4

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



Source: Bloomberg L.P.

U.S. DOLLAR APPRECIATES ON ABOVE-EXPECTATIONS U.S. ECONOMIC DATA, FOMC COMMUNICATIONS, AND REPRICING OF FEDERAL RESERVE POLICY

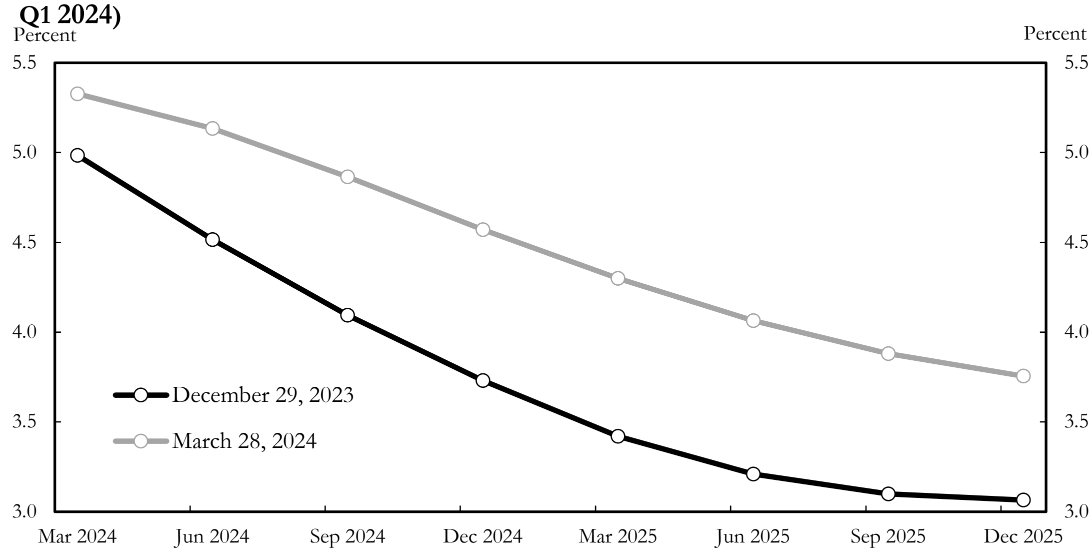
During the first quarter of 2024, the U.S. dollar, as measured by the Federal Reserve Board's broad trade-weighted dollar index, appreciated 2.2 percent on net. The dollar appreciated broadly against most advanced and emerging market currencies, driven by U.S. economic data that indicated slower inflation deceleration compared to expectations and broader economic resilience. Contacts also noted that the appreciation of the dollar was further supported by Federal Open Market Committee (FOMC) communications that were interpreted as pushing back against market expectations for near-term policy rate cuts.

On balance, U.S. economic data releases during the quarter were viewed as indicating slower inflation deceleration and stronger growth compared to expectations at the end of 2023, while employment data reflected continued labor market resilience. Year-over-year headline and core consumer price index (CPI) data prints were slightly above consensus forecasts throughout the quarter, while Purchasing Managers' Index (PMI) data gradually improved. Nonfarm payrolls data released over the quarter printed above consensus expectations each month, though the January print was subsequently revised downward. Market participants broadly viewed these releases as outweighing other mixed economic data over the quarter, including below-expectations retail sales data.

Against this backdrop of robust U.S. growth, the FOMC left its federal funds target range unchanged over the quarter, and official communications were interpreted as indicating that policy rate cuts were likely to start later than market participants had previously expected. In particular, Chair Powell's remarks during the January FOMC press conference were viewed as pushing back on expectations for a rate cut in March, and subsequent comments from other Committee members over the intermeeting period were viewed as supporting this opinion. On net over the quarter, two-year nominal U.S. Treasury yields rose by 37 basis points, while implied yields from Secured Overnight Financing Rate (SOFR) futures for year-end 2024 increased by 84 basis points as markets reduced the cumulative amount of easing priced for 2024 from around 150 basis points at the beginning of the year to 70 basis points at the end of March. At the end of the first quarter, market pricing implied expectations of a first 25 basis point rate cut in July 2024, in contrast to expectations at the start of the year that cuts would begin in March. Increases in U.S. Treasury yields generally outpaced the rise in other advanced-economy sovereign bond yields, resulting in a widening of interest rate differentials.

Chart 5

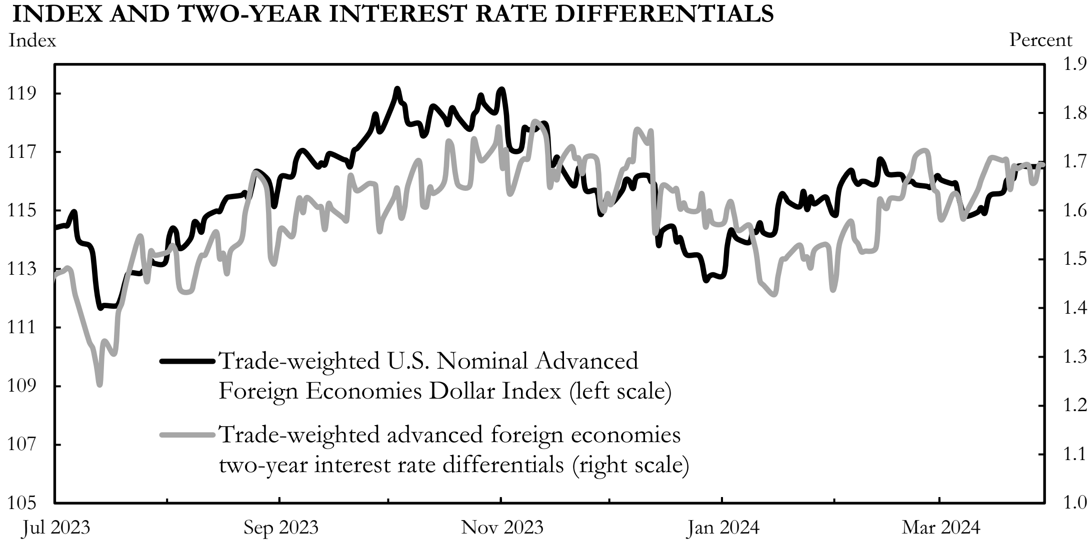
SOFR FUTURES-IMPLIED PATH OF FOMC POLICY (Q4 2023 VERSUS Q1 2024)



Source: Bloomberg L.P.

Chart 6

U.S TRADE-WEIGHTED ADVANCED FOREIGN ECONOMIES DOLLAR INDEX AND TWO-YEAR INTEREST RATE DIFFERENTIALS



Sources: Bloomberg L.P.; New York Fed staff calculations.

U.S. DOLLAR APPRECIATES AGAINST JAPANESE YEN AMID WIDENING INTEREST RATE DIFFERENTIALS AND CONTINUED USE OF YEN IN CARRY TRADES

The dollar appreciated 7.3 percent against the Japanese yen amid widening interest rate differentials, as increases in Japanese government bond (JGB) yields following the Bank of Japan's (BOJ's) exit from negative interest rate policy were outpaced by increases in U.S. interest rates. In addition, the popularity of the Japanese yen as a funding currency for carry trades continued to be cited as a factor driving Japanese yen depreciation.

At its March policy meeting, the Bank of Japan exited negative interest rate policy, setting the overnight unsecured call rate target at 0 to 0.1 percent, and communicated a discontinuation of yield curve control. The BOJ also made adjustments to its reserves remuneration framework, replacing its three-tiered reserve remuneration structure with a one-tier system. While it exited yield curve control, the BOJ communicated that it will continue with JGB purchases using quantitative guidelines. Market participants interpreted the communications as signaling an unchanged pace of JGB purchases, which, combined with uncertainty around future policy rate increases, were cited as driving JGB yield declines and broad yen depreciation following the March meeting. In particular, communications emphasizing that policy remained at accommodative levels and that further policy changes would occur gradually were cited as contributing to yen depreciation. Although ten-year JGB yields rose by 11 basis points over the quarter, the U.S.–Japan interest rate differential widened as JGB yield increases were outpaced by rising U.S. Treasury yields.

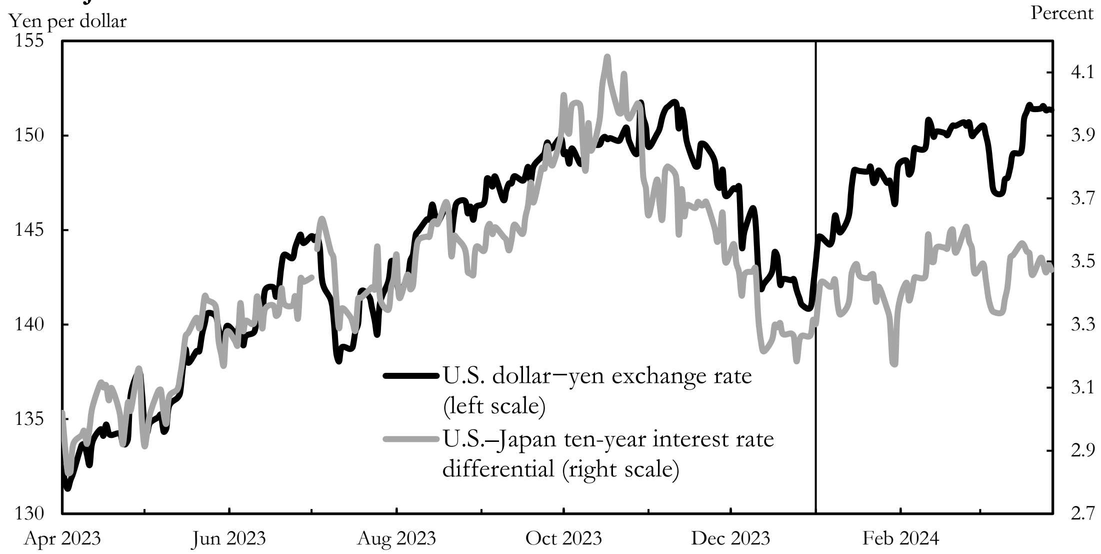
Against a backdrop of low implied volatility, the popularity of the yen as a funding currency for carry trades[1] was also viewed as supporting yen depreciation, as JGB yields remained low in comparison to both U.S. and emerging market interest rates. Consistent with this factor cited by market participants, data showed a notable increase in short yen positioning against the dollar over the quarter.

Market participants were attentive to statements from Japanese government officials regarding the pace of yen depreciation, particularly as the U.S. dollar–yen exchange rate approached 152 yen per dollar—near the levels at which the Ministry of Finance intervened in September and October 2022—toward the end of the quarter. The Japanese Ministry of Finance did not report any intervention activity over the first quarter.

[1] A carry trade involves borrowing in lower-yielding currencies (known as funding currencies) to invest in higher-yielding (target) currencies and is a strategy that becomes less popular as foreign exchange volatility and associated risk rises.

Chart 7

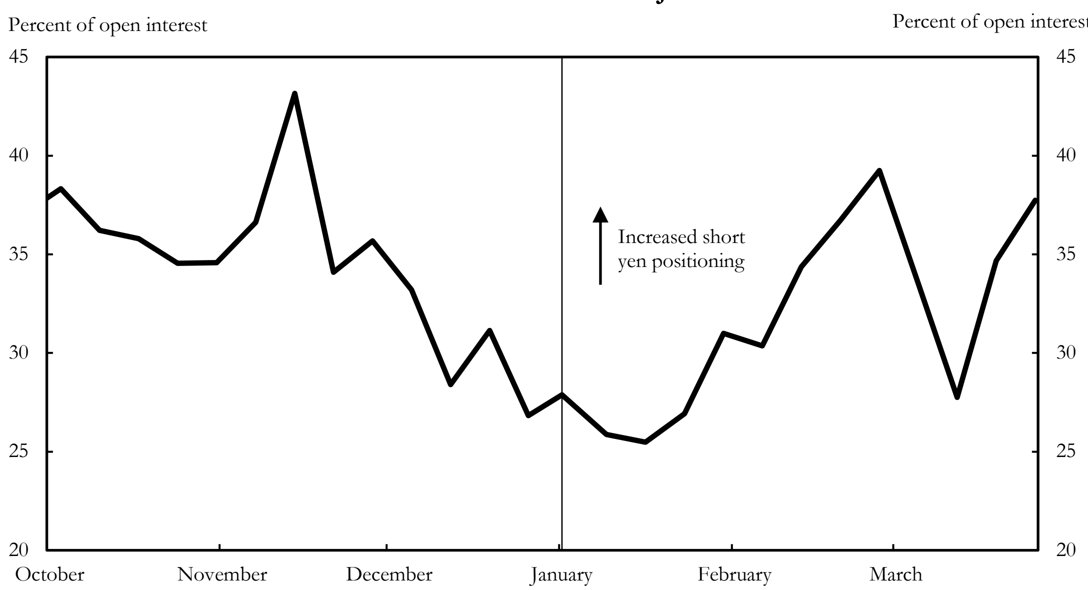
U.S. DOLLAR−YEN EXCHANGE RATE AND U.S.−JAPAN TEN-YEAR INTEREST RATE DIFFERENTIAL



Source: Bloomberg L.P.

Chart 8

U.S. DOLLAR NET LONG POSITIONING AGAINST JAPANESE YEN



Source: Commodity Futures Trading Commission, Bloomberg L.P.

EURO DEPRECIATES ON COMPARATIVELY WEAKER ECONOMIC DATA

The dollar appreciated 2.3 percent against the euro over the first quarter. Although U.S.–euro area rate differentials were little changed on net, investors viewed weaker European data and lower growth expectations, in comparison to the U.S., as contributing to euro depreciation. The euro area growth outlook for 2024 was revised modestly downward, while fourth-quarter GDP showed an annualized expansion of 0.1 percent, in line with the consensus expectation. Euro area year-over-year CPI data reflected continued deceleration over the quarter despite some final prints being modestly above initial expectations, indicating a steadier path of disinflation in comparison to the U.S. trajectory. PMI data were mixed and, despite improvement over the quarter, composite euro area PMI remained in contractionary territory, with manufacturing PMIs lagging services. Overall, the data were interpreted as indicative of a weaker economy in comparison to the U.S. and supported dollar appreciation against the euro.

The European Central Bank (ECB) left its policy rate unchanged in the first quarter, as was widely expected by market participants. Despite evidence of disinflation and the downward revision to the growth outlook, market participants viewed the continued above-target CPI data as a key driver of near-term ECB policy. Investors were also attentive to ECB policymakers' particular focus on wage inflation throughout the quarter. As in the U.S., communications from ECB officials were interpreted as pushing back on expectations for near-term rate cuts, leading market pricing to coalesce around the ECB commencing policy easing at its June meeting, compared with expectations at the beginning of the year for a first cut in March. Because the two jurisdictions' policy-sensitive rates moved in similar directions, U.S.–euro area interest rate differentials were little changed.

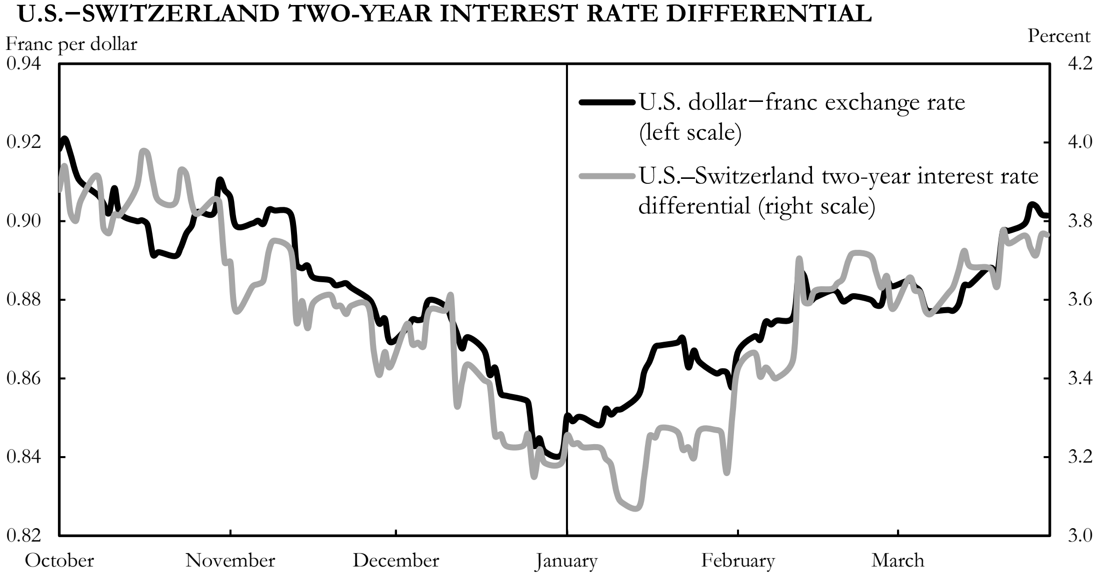
SWISS FRANC DEPRECIATES AMID BELOW-EXPECTATIONS INFLATION DATA AND WIDENING INTEREST RATE DIFFERENTIALS

The dollar appreciated 7.1 percent against the Swiss franc over the first quarter amid below-expectations Swiss CPI data, persistent low Swiss interest rates—which contributed to the use of the franc as a funding currency in carry trades—and the Swiss National Bank's (SNB) policy rate cut. On the margins, some market participants also noted their view that the SNB may have reduced or ceased foreign exchange sales early in the year, following the SNB's December 2023 removal of policy statement language which had indicated that the central bank was focused on sales.

Swiss year-over-year CPI for January printed at 1.3 percent, below consensus expectations and the SNB's forecast from December. CPI decelerated further in February, to 1.2 percent, though it was modestly above market expectations. Against this backdrop, the SNB reduced its policy rate by 25 basis points to 1.50 percent at its March meeting, contrary to most market participants' expectations for no change. Over the quarter, U.S.–Swiss interest rate differentials widened notably and nominal Swiss interest rates remained significantly below rates in most other advanced economies, which contributed to franc depreciation and the continued use of the franc as a funding currency in carry trades. Short franc positioning against the dollar grew steadily over the first quarter.

Chart 9

U.S. DOLLAR−SWISS FRANC EXCHANGE RATE AND U.S.−SWITZERLAND TWO-YEAR INTEREST RATE DIFFERENTIAL



Source: Bloomberg L.P.

U.S. DOLLAR APPRECIATES AGAINST MOST EMERGING MARKET CURRENCIES AMID INCREASES IN U.S. INTEREST RATES

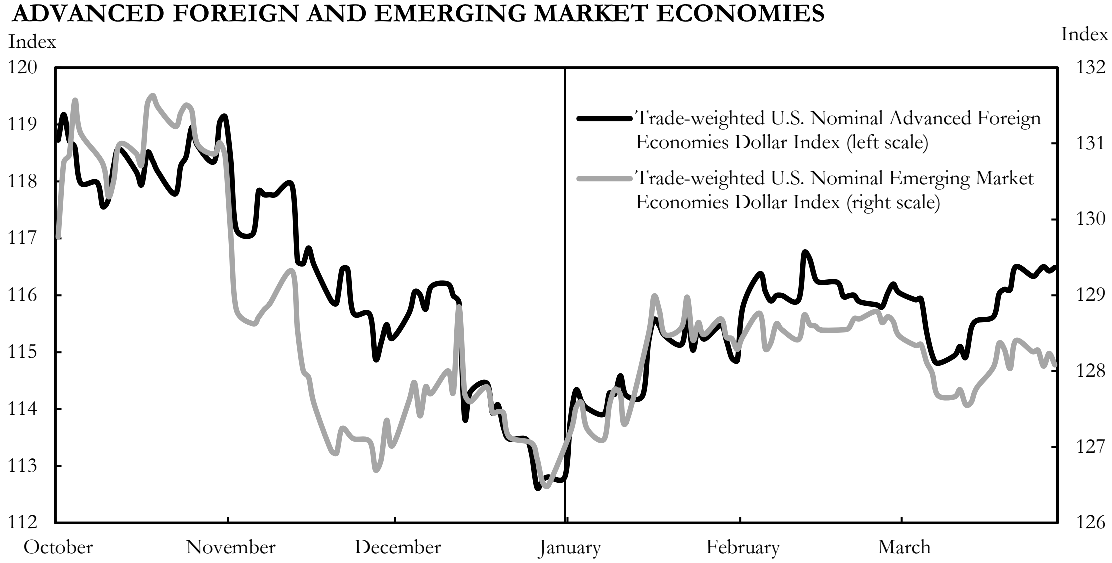
The dollar appreciated 1.3 percent against emerging market currencies during the first quarter, as measured by the Federal Reserve's trade-weighted Emerging Market Economies Dollar Index. Dollar appreciation was supported by a decline in the relative yield advantage of some emerging market currencies, as several central banks reduced their policy rates while expectations for policy rate cuts in the U.S. were pared back and Treasury yields rose over the period.

Of note, the dollar appreciated 1.7 percent against the Chinese renminbi amid widening U.S.–China interest rate differentials and focus on continued signs of economic weakness in China. Market participants noted that further renminbi depreciation was limited by official sector communications and actions, including the People's Bank of China setting the daily dollar–renminbi fixing at levels in which the renminbi was stronger than market expectations for much of the quarter, and tightening liquidity in the offshore renminbi market. The dollar also appreciated against the currencies of several Asian economies with economic links to China, including the Korean won, the Taiwanese dollar, the Malaysian ringgit, and the Thai baht.

Elsewhere, the dollar depreciated 2.4 percent against the Mexican peso. Market participants cited the sustained popularity of carry trades as contributing to peso appreciation. Over the quarter, a notable decline in implied volatility on the dollar–peso pair, continued wide interest rate differentials in favor of Mexico, and robust peso liquidity were viewed by investors as the key drivers of peso carry trade activity. A number of longer-term factors were also cited as continuing to support the peso, including increased remittances, a later-than-expected start to rate cuts, and nearshoring of U.S. investments and manufacturing amid continued U.S. economic strength. The Banco de México cut its policy rate by 25 basis points to 11 percent at its March meeting, making it the last major Latin American central bank to cut rates in the current interest rate cycle.

Chart 10

U.S. TRADE-WEIGHTED DOLLAR PERFORMANCE VERSUS ADVANCED FOREIGN AND EMERGING MARKET ECONOMIES



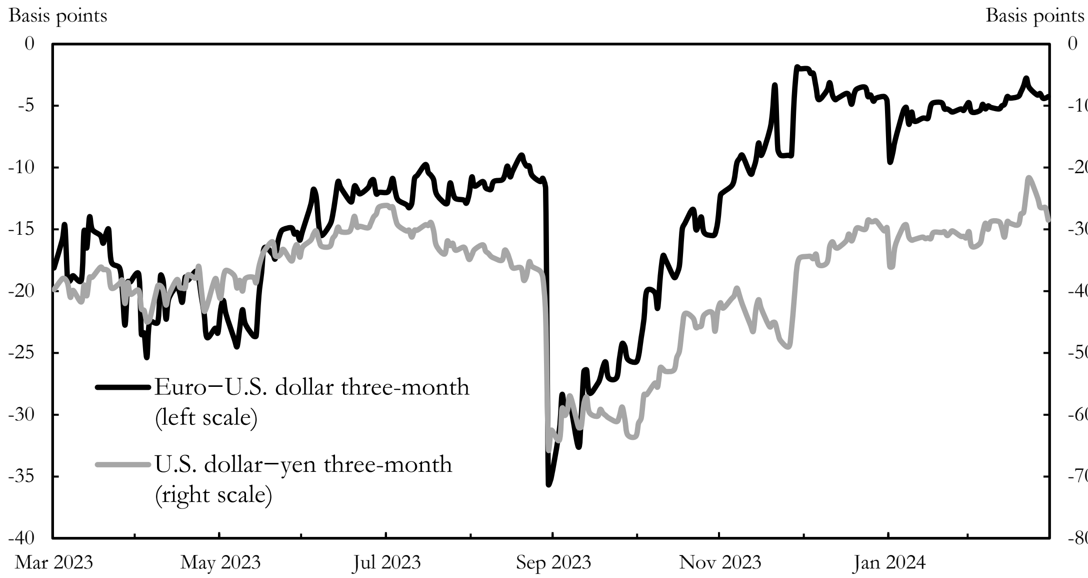
Sources: Board of Governors of the Federal Reserve System; Bloomberg L.P.

OFFSHORE U.S. DOLLAR FUNDING CONDITIONS REMAIN STABLE

Global offshore dollar funding conditions in the foreign exchange swap market were generally stable over the quarter. In January, very short-tenor swap basis spreads exhibited temporary widening beyond levels seen in recent month-ends, which market participants attributed to some negative sentiment around the broader focus on global banks' exposure to real estate. However, short-dated swap basis spreads normalized after the passage of the month-end, and then narrowed gradually throughout the rest of the quarter.

Chart 11

FOREIGN EXCHANGE THREE-MONTH SWAP-IMPLIED BASIS SPREADS



Source: Bloomberg L.P.

U.S. DOLLAR LIQUIDITY SWAP ARRANGEMENTS WITH FOREIGN CENTRAL BANKS

Aggregate swaps outstanding of the U.S. dollar liquidity swap arrangements with foreign central banks declined from $1.4 billion at the end of the fourth quarter of 2023 to $0.2 billion at the end of the first quarter of 2024, in line with comparable periods in the prior two years. The decrease reflected the maturities of swaps that had been originated in the fourth quarter of 2023. All outstanding central bank liquidity swaps at the end of March were with the ECB, while the BOJ, Bank of England, SNB, and Bank of Canada had no U.S. dollar swaps outstanding.

TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE HOLDINGS

The Federal Reserve and U.S. Treasury did not undertake any foreign exchange intervention operations during the quarter. As of March 31, the value of the Federal Reserve System Open Market Account (SOMA) foreign-currency-denominated assets totaled $18 billion, comprised of euro- and yen-denominated holdings. The value of the U.S. Treasury's Exchange Stabilization Fund (ESF) foreign-currency-denominated assets totaled $18 billion, comprised of euro and yen holdings.

Foreign Exchange Reserve Holdings

The Federal Reserve and U.S. Treasury 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.[2]

In terms of investment eligibility, the Federal Reserve and U.S. Treasury's foreign exchange reserves can be invested in German, French, Dutch, and Japanese government obligations; purchases of obligations of European sovereign issuers eligible to be held outright under agreements for repurchase of such securities; and in instruments at official institutions, such as the Bank for International Settlements and foreign central banks. To the greatest extent practicable, the investments are split evenly between the SOMA and the ESF.

As of March 31, 2024, the U.S. dollar value of euro-denominated deposits and government securities held by the SOMA and the ESF decreased to $23.6 billion from $24.1 billion on December 31, 2023, and the U.S. dollar value of yen-denominated deposits and government securities decreased to $12.4 billion from $13.3 billion on December 31, 2023. These changes were largely driven by foreign exchange translation effects.

[2] 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.

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, 2023[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, 2024[a]
Federal Reserve System Open Market Account (SOMA)						
Euro	12,035	0	84	(0)	(295)	11,824
Japanese yen	6,632	0	(0)	(0)	(452)	6,180
Total	18,667	0	84	(0)	(747)	18,004

		Changes in Balances by Source				
	Carrying Value, December 31, 2023[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, 2024[a]
U.S. Treasury Exchange Stabilization Fund (ESF)						
Euro	12,017	0	84	(0)	(295)	11,805
Japanese yen	6,632	0	(0)	(0)	(452)	6,180
Total	18,648	0	83	(0)	(746)	17,985

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 "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 March 31, 2024

	U.S. Treasury Exchange Stabilization Fund (ESF)[a]	Federal Reserve System Open Market Account (SOMA)[a]
Euro-denominated assets	**11,805.4**	**11,823.9**
Cash held on deposit at official institutions	8,643.5	8,662.0
Marketable securities held under repurchase agreements[b]	0.0	0.0
Marketable securities held outright	3,162.0	3,162.0
German government securities	358.6	358.6
French government securities	1,759.6	1,759.6
Dutch government securities	1,043.8	1,043.8
Yen-denominated assets	**6,179.8**	**6,179.8**
Cash held on deposit at official institutions	5,756.7	5,756.7
Marketable securities held outright	423.0	423.0

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

[a]As of March 31, the SOMA and the ESF euro portfolios had Macaulay durations of 8.99 and 9.01 months, respectively; both the SOMA and ESF yen portfolios had Macaulay durations of 0.34 months.

[b]Debt obligations of the European sovereign issuers eligible to be held outright in the foreign currency reserves are eligible collateral for reverse repo transactions.

Table 3

RECIPROCAL CURRENCY ARRANGEMENTS

Millions of U.S. Dollars

Institution	Amount of Facility	Outstanding as of March 31, 2024
	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	Unlimited	187
Swiss National Bank	Unlimited	0
Bank of Japan	Unlimited	0
Bank of Canada	Unlimited	0
Bank of England	Unlimited	0
		187
Standing foreign currency liquidity swap arrangement		
European Central Bank	Unlimited	0
Swiss National Bank	Unlimited	0
Bank of Japan	Unlimited	0
Bank of Canada	Unlimited	0
Bank of England	Unlimited	0
		0
	U.S. Treasury Exchange Stabilization Fund (ESF)	
Banco de México	9,000	0
	9,000	0