# OPEN MARKET

# OPERATIONS

DURING 2024

A Report Prepared for the Federal Open Market Committee by the Markets Group of the Federal Reserve Bank of New York

# CONTENTS

This report, presented to the Federal Open Market Committee by Roberto Perli and Julie Remache, Manager and Deputy Manager of the System Open Market Account, describes open market operations of the Federal Reserve System for the calendar year 2024. Christian Cabanilla, Jonathan Berk, Kathryn Chen, Luke Corbett, Dayna Goodwin, Radhika Mithal, and Linsey Molloy were primarily responsible for preparation of the report.

# OVERVIEW

## KEY DEVELOPMENTS IN 2024

During 2024, inflation continued to moderate but remained somewhat above the Federal Open Market Committee's (FOMC or Committee) 2 percent objective, while the unemployment rate remained at low levels. In response to elevated inflation, the FOMC left the target range for the federal funds rate unchanged at 5 ¼ to 5 ½ percent for most of 2024. Into the latter half of the year, progress on inflation and an easing of labor market tightness resulted in the FOMC reducing the target range at its final three meetings to reach a year-end level of 4 ¼ to 4 ½ percent.

The Federal Reserve's monetary policy implementation framework continued to operate as expected during 2024, with the effective federal funds rate (EFFR) remaining well within the target range at a spread of 7 basis points below the rate of interest on reserve balances (IORB). In December, the FOMC directed the Open Market Trading Desk at the Federal Reserve Bank of New York (the Desk) to decrease the offering rate at the overnight reverse repurchase agreement (ON RRP) facility by 5 basis points, aligning it with the bottom of the target range. This technical adjustment had no bearing on the stance of monetary policy. Across broader secured money markets, repurchase agreement (repo) rates continued to move higher relative to the Federal Reserve's administered rates, driven by strong U.S. Treasury securities issuance, robust demand for repo financing, and the continuation of the measured runoff of the Federal Reserve's System Open Market Account (SOMA) holdings that began in 2022.

During the year, decreases in the SOMA portfolio continued to be guided by the Committee's Plans for Reducing the Size of the Federal Reserve's Balance Sheet. At its May meeting, the Committee directed the Desk to slow the pace of the reduction of the SOMA portfolio beginning in June by lowering the cap on monthly Treasury securities redemptions, while leaving the cap on reinvestment of principal payments of agency mortgage-backed securities (MBS) and agency debt unchanged and directing any reinvestments into Treasury securities.

Total assets of the Federal Reserve decreased by $766.8 billion during the year to a level of $7.07 trillion, driven largely by runoff of the SOMA portfolio and, to a lesser degree, decreases in credit extensions related to the banking strains that occurred in 2023. Total lending under the primary credit program and the Bank Term Funding Program (BTFP) decreased to less than $20 billion at year-end, compared to peak levels of $344 billion in early 2023. Federal Reserve assets as a percentage of nominal GDP ended 2024 at 24 percent, compared to 28 percent in 2023.

Federal Reserve liabilities decreased in line with assets during the year, while changing composition. The shift in composition was mainly driven by the sharp decrease in the ON RRP facility from an average level of $807.7 billion in December 2023 to $171.4 billion in December 2024. This decrease reflected broad reallocation by money market fund (MMF) counterparties toward more attractive investments, such as U.S. Treasury bills and private repo. The continuation of strong U.S. Treasury issuance throughout the year supported these shifts in MMF investments. Reserve balances declined by $242.4 billion over the year and remained at abundant levels, as evidenced by a range of indicators monitored by the Desk. (See Box 1, "Monitoring Reserve Conditions on the Desk," on page 14.)

In line with the trend of higher money market rates in relation to IORB during the year, the distribution of trades underlying the Secured Overnight Financing Rate (SOFR)

shifted higher and resulted in a narrower spread between SOFR and the IORB rate. Treasury settlement and financial reporting dates in the second half of 2024 saw more pronounced, but temporary, increases in SOFR-IORB spreads, and the first non-test usage of the Standing Repo Facility (SRF) occurred at September quarter-end. The SRF rate is set at the top of the federal funds target range and offers liquidity to eligible counterparties via overnight repo transactions to help dampen upward pressure in repo markets that can spill over into the federal funds market. (See Box 2, "A Closer Look at the Standing Repo Facility in 2024," on page 16.) To support the effectiveness of the SRF, during 2024 the number of approved counterparties at the facility increased by twelve, all of which were depository institutions. The total number of SRF counterparties at year-end was sixty-one, including thirty-seven depository institutions and twenty-four primary dealers.

Global U.S. dollar funding markets remained stable throughout 2024, and the average usage of U.S. dollar central bank liquidity swap lines remained at low levels. Usage of the standing overnight repurchase agreement facility for foreign and international monetary authorities (commonly referred to as the FIMA repo facility) was minimal throughout 2024. The Desk did not conduct any foreign exchange intervention activity during 2024 and continued to manage the SOMA foreign currency reserve holdings in line with the portfolio's investment objectives of liquidity, safety, and return.

SOMA net income during 2024 was negative $74.7 billion, compared to negative $117.2 billion in 2023. The change was largely due to the sharp reduction in ON RRP interest expense, partially offset by lower interest income from SOMA securities holdings. The Federal Reserve System's deferred asset at year-end 2024 was $216.0 billion, reflecting the cumulative negative net income of the Federal Reserve. The deferred asset has no implications for how the Federal Reserve conducts monetary policy and does not constrain its ability to meet its financial obligations. The SOMA portfolio ended the year with an unrealized loss position that was slightly higher than levels from 2023. Unrealized gains or losses have no effect on net income or remittances to the Treasury or on the ability of the Federal Reserve to carry out monetary policy.

In coming years, the size and composition of the balance sheet will continue to evolve. A projections exercise using survey-based assumptions for the timing of shifts in balance sheet policy shows the portfolio declining in size consistent with the FOMC's plans for balance sheet reduction, before remaining generally steady through reinvestments, and then finally expanding to match the growth in Federal Reserve liabilities. Under these projections, portfolio holdings shift toward Treasury securities over time, consistent with the FOMC's stated intention to return to a portfolio composed primarily of Treasury securities. Using survey-based assumptions about the path of interest rates, the projections indicate that total SOMA net income could remain negative in 2025, driven by the cost of interest-bearing Federal Reserve liabilities, before returning to positive levels in subsequent years.

Operational resilience remains an important priority, and during 2024 the New York Fed continued to maintain its operational flexibility, along with its cyber and geographic resilience. The Desk continued its practice of undertaking small-value exercises with counterparties to maintain readiness for a range of potential FOMC directives. As part of these broader exercises, the Desk conducted additional SRF operations around year-end, with the purpose of increasing the Federal Reserve's understanding of how the timing of SRF operations can support effective policy implementation and smooth market functioning during periods of expected money market pressures.

## A GUIDE TO THIS REPORT

This report is divided into five main sections:

**1. The Federal Reserve's Framework for Monetary Policy Implementation:** This section provides an overview of the Federal Reserve's framework for monetary policy implementation, including the purpose and usage of the various tools employed by the Desk. (pp. 7–9)

**2. Open Market Operations:** This section describes the steps taken by the Desk within the framework to implement the FOMC's operating directives in money markets and securities markets during 2024. The Desk's operations to manage the Federal Reserve's portfolio of foreign currency–denominated assets are also included in this section. (pp. 11–20)

**3. Selected Balance Sheet Developments:** This section examines the composition of the Federal Reserve's balance sheet, reviews developments related to the domestic SOMA portfolio, and discusses the purposes of, and recent trends in, the Federal Reserve's liabilities. It also presents an illustrative projection of the balance sheet and SOMA net income under a set of simplifying assumptions. (pp. 21–38)

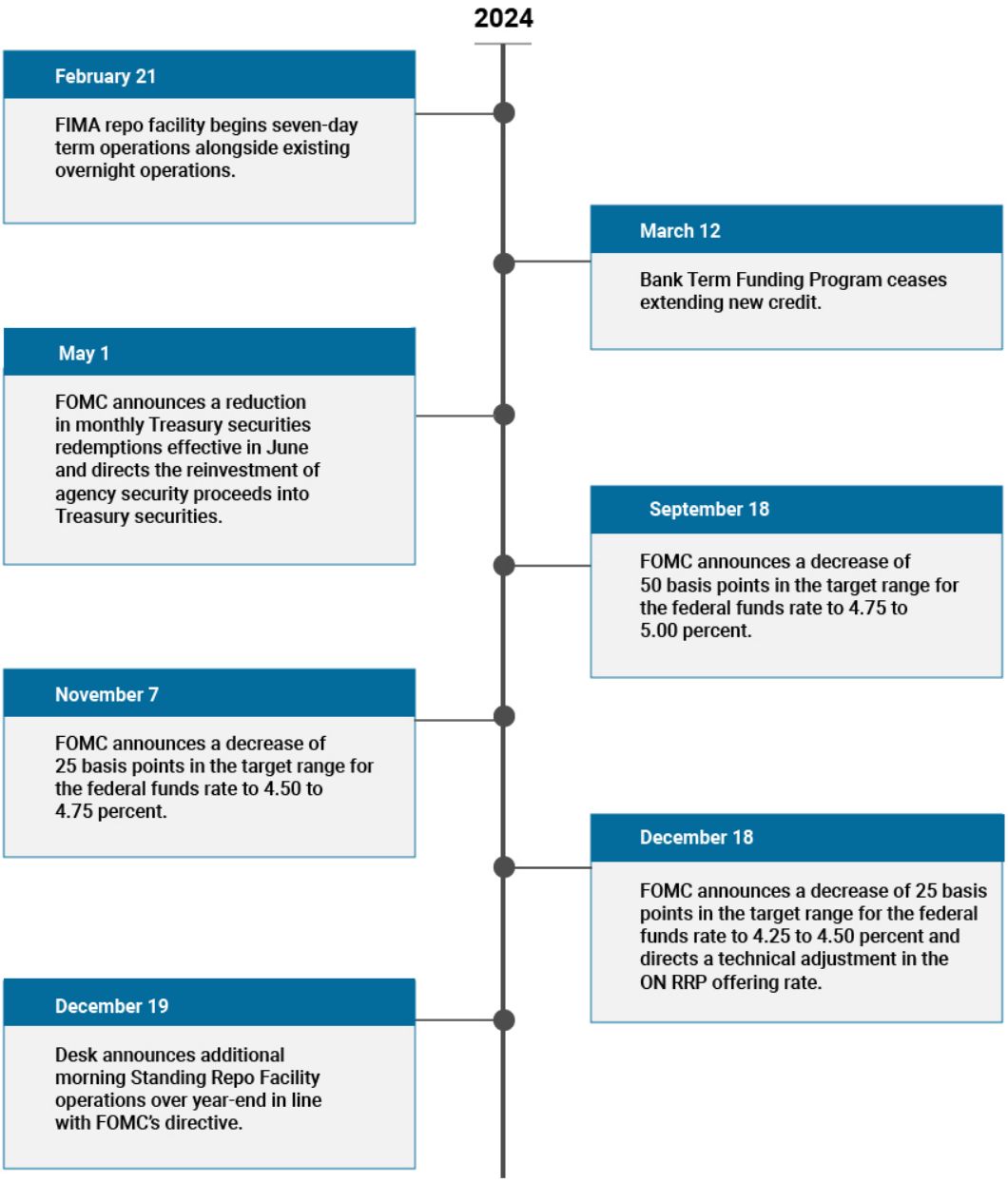
**4. Counterparties:** This section reviews the trading counterparties to the Desk's domestic and foreign open market operations. (pp. 40–41)

**5. Operational Flexibility and Resiliency:** This final section highlights actions implemented to maintain cyber resilience and details operational readiness exercises undertaken during the year. (pp. 43–44)

Appendix 1 provides summaries of the key terms for each of the Desk's operations. Appendix 2 highlights links to the FOMC documents governing Desk operations. Appendix 3 summarizes the Desk's public disclosures about its operations. Appendix 4 presents assumptions underlying the scenarios for the SOMA portfolio and the SOMA net income projections. Appendix 5 provides links to web pages where source material for Federal Reserve–related content can be found.

Underlying data for the charts shown in this report is provided on the New York Fed's website to the extent that its release is permitted by data suppliers. Additional questions regarding this report and the underlying data can be addressed to ny.mkt.soma.annualreport@ny.frb.org.

## TIMELINE OF SELECTED EVENTS



# THE FEDERAL RESERVE'S FRAMEWORK FOR MONETARY POLICY IMPLEMENTATION

The Federal Reserve implements monetary policy in a framework that includes a target range for the federal funds rate to communicate the FOMC's policy stance, administered rates set by the Federal Reserve, and market operations directed by the FOMC and conducted by the Desk to promote money market conditions consistent with the FOMC's target range for the policy rate. The FOMC can also employ forward guidance for the target range for the policy rate and alter the size and composition of the Federal Reserve's balance sheet as mechanisms for achieving its objectives.[1] The framework supports the FOMC's pursuit of its maximum employment and price stability objectives, mandated by Congress and articulated in the Committee's Statement on Longer-Run Goals and Monetary Policy Strategy.[2]

The money market tools used by the Federal Reserve for policy implementation are designed to maintain control over short-term interest rates in an environment of ample reserves in the banking system. (See "How the Federal Reserve Implements Monetary Policy" on page 9 for an illustrative overview of the tools.) The FOMC's policy rate is the federal funds rate, which is maintained within a target range set by the Committee.[3] The Federal Reserve sets two main administered rates: the IORB rate is paid to depository institutions with accounts at the Federal Reserve, while the ON RRP rate is paid to a broader range of eligible counterparties. These administered rates are set at levels that support the federal funds rate trading within the target range. Given the safety and convenience of maintaining reserves in Federal Reserve accounts, little incentive exists for banks to lend to counterparties at rates lower than the IORB rate. However, since not all money market participants are eligible to hold Federal Reserve accounts or to earn IORB, federal funds can trade below the IORB rate. As a result, the ON RRP facility supports a floor on interest rates by offering a broader range of money market participants an overnight investment, which enhances their bargaining power in negotiating similar private-sector transactions. Amid significant shifts in reserve levels in recent years, the Federal Reserve has been able to maintain control of the federal funds rate through use of its administered rates.

Several implementation tools also help limit any upward pressure on interest rates. The Committee maintains the Standing Repo Facility to support the effective implementation and transmission of monetary policy and smooth market functioning. The SRF is designed to dampen upward pressures in repo markets that may spill over to the federal funds market by offering daily repo operations to primary dealers and eligible depository institutions against Treasury securities, agency debt securities, and agency MBS. The SRF rate is set above the general level of overnight interest rates, currently at the top of the target range for the federal funds rate. In addition, the discount window supports monetary policy implementation and the stability of the banking system by offering depository institutions, including U.S. branches and agencies of foreign banks, a ready source of liquidity against a wider set of collateral than the SRF. The discount window's primary credit program interest rate is currently set at the top of the federal funds target range.

Given the global role of the U.S. dollar, the Federal Reserve also has two complementary dollar liquidity facilities to alleviate global dollar funding strains and prevent spillovers to the United States. The Federal Reserve's central bank swap lines can be used to improve liquidity conditions in the U.S. and abroad by providing a select set

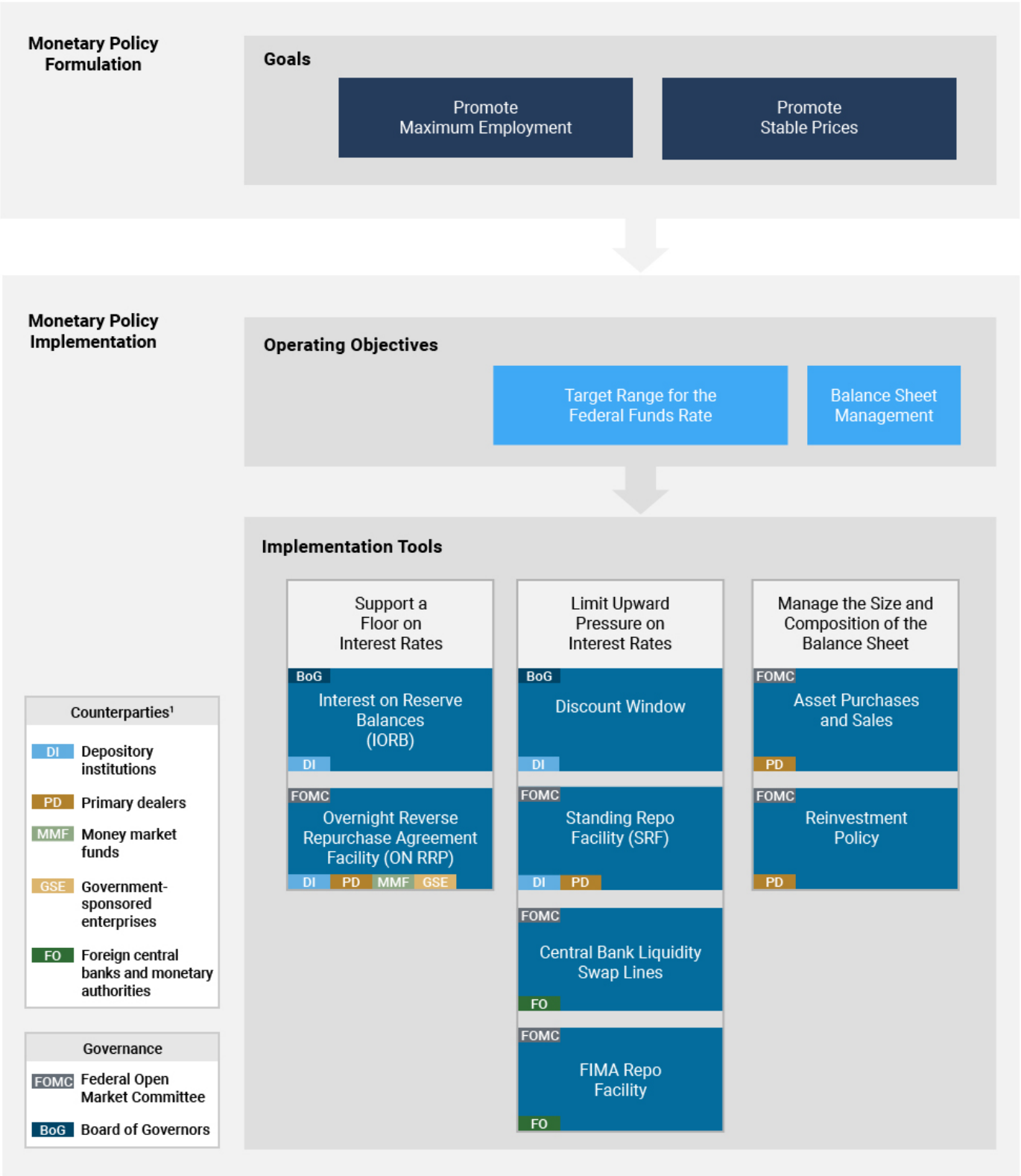
of foreign central banks the capacity to deliver dollar funding to institutions in their jurisdictions, including during global systemic shocks. This ability supports activities that rely on access to U.S. dollar funding, including supplying credit to U.S. borrowers. In addition, the FIMA repo facility provides central banks and other foreign monetary authorities a means to access temporary U.S. dollar liquidity against their holdings of Treasury securities held in custody at the New York Fed, other than through outright sales of Treasury securities. As a result, the FIMA repo facility can help address pressures in offshore dollar funding markets that could otherwise affect U.S. financial conditions. In this respect, the FIMA repo facility complements the U.S. dollar liquidity swap lines as a backstop for global dollar markets.

Changes in the size or composition of the Federal Reserve's balance sheet are an important part of the monetary policy implementation framework and may fulfill three possible goals. First, asset purchases can be used to maintain an ample supply of reserves over time such that control over short-term interest rates is achieved primarily through administered rates. Such reserve management purchases may accommodate trend growth in demand for Federal Reserve liabilities over time, as well as potential shifts in the demand for reserves.

Second, changes in the size or composition of the balance sheet may be used to influence financial conditions. On several occasions, the FOMC has directed an expansion of the balance sheet to ease financial conditions and provide economic stimulus, which can be beneficial when interest rates are constrained at the effective lower bound and further easing through cuts in the policy rate is not available. The FOMC has also at times directed the Desk to allow SOMA securities to mature without reinvestment to reduce the size of the balance sheet and return reserves to levels consistent with the Committee's ample reserves framework. Although interest rate and balance sheet policies both support the FOMC's goals, the FOMC has communicated that the two remain distinct tools, with the federal funds target being its primary policy tool.

Lastly, asset purchases can on occasion be used to address periods of severe market dysfunction that could impede the transmission of monetary policy and affect broader financial stability. Purchases can alleviate frictions in dealer intermediation, establish clearing prices for the assets purchased, and ease balance sheet constraints of private market participants—which helps restore private market functioning and support the flow of credit to the U.S. economy.

## How the Federal Reserve Implements Monetary Policy




[1] Counterparty types listed are for informational purposes only. Not all individual counterparties within a specific category necessarily have access to a given facility. For more detailed information, see https://www.newyorkfed.org/markets/counterparties.

# OPEN MARKET OPERATIONS

To implement monetary policy, the Desk conducts open market operations as directed by the FOMC. Domestic open market operations in 2024 included reinvestments of a portion of maturing Treasury securities in accordance with FOMC directives, as well as repurchase and reverse repurchase agreements. Operations also included the securities lending program to support smooth functioning of Treasury markets. Principal paydowns on SOMA holdings of agency MBS did not exceed the cap during any month in 2024, so no reinvestments were conducted by the Desk. The Desk maintained swap arrangements with certain foreign central banks to provide dollar liquidity to global funding markets and managed the SOMA foreign reserves portfolio.

## MONEY MARKET DEVELOPMENTS AND RELATED POLICY MEASURES

During 2024, the FOMC decreased the target range for the federal funds rate by 1 percentage point from 5 ¼ to 5 ½ percent to 4 ¼ to 4 ½ percent (Table 1). The FOMC began by decreasing the target range by 50 basis points at its September meeting, subsequently lowering the target range by 25 basis points at each of its final two meetings of the year (Chart 1). The EFFR remained well within the target range at a spread of 7 basis points below the IORB rate during the year and the distribution of EFFR trades remained stable (Chart 2).

Table 1

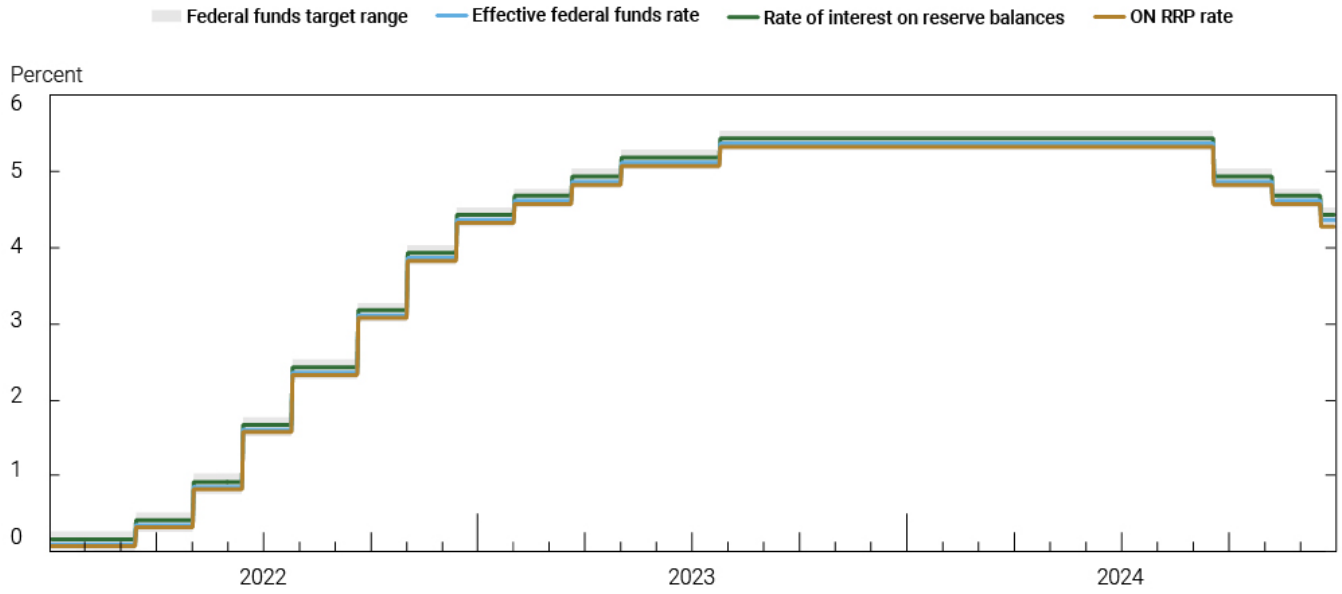
**Changes to Key Policy Rates in 2024**

| | | Federal Funds Target Range | | IORB Rate | | ON RRP Rate | | Spread of IORB and ON RRP Rates | SRF Rate | |
|---|---|---|---|---|---|---|---|---|---|---|
| FOMC Meeting Announcing Policy Rate Changes | Effective Date Range for Policy Rates during 2024 | Rate (Percent) | Change (Basis Points) | Rate (Percent) | Change (Basis Points) | Rate (Percent) | Change (Basis Points) | Level (Basis Points) | Rate (Percent) | Change (Basis Points) |
| September 2024 | September 19 to November 7 | 4¾ to 5 | -50 | 4.90 | -50 | 4.80 | -50 | 10 | 5.00 | -50 |
| November 2024 | November 8 to December 18 | 4½ to 4¾ | -25 | 4.65 | -25 | 4.55 | -25 | 10 | 4.75 | -25 |
| December 2024 | December 19 to December 31 | 4¼ to 4½ | -25 | 4.40 | -25 | 4.25 | -30 | 15 | 4.50 | -25 |

Sources: Federal Open Market Committee; Board of Governors of the Federal Reserve System.

Chart 1

**Federal Funds Target Range, Effective Federal Funds Rate, Rate of Interest on Reserve Balances, and ON RRP Rate**



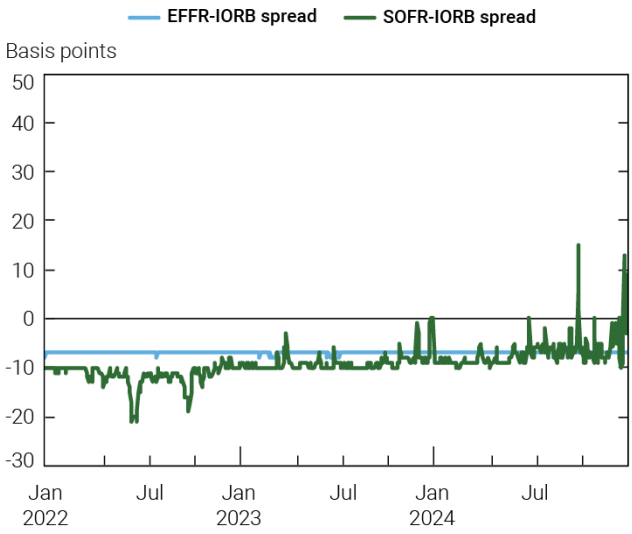

Source: Federal Reserve Bank of New York.
Note: Figures are daily.

Money market rates, including Treasury bill yields and broader repo rates (such as SOFR), gradually moved higher with respect to the IORB rate during 2024. The distribution of trades underlying the SOFR shifted higher during the year and resulted in a narrower spread between SOFR and the IORB rate. During the second half of the year, increases in SOFR were more pronounced around financial reporting and Treasury settlement dates as overall liquidity in the financial system continued to decrease amid the ongoing runoff of the SOMA portfolio. In addition, MMFs, which are by far the largest users of the ON RRP, responded to increasing private market rates by significantly decreasing their usage of the facility in the second half of the year and instead shifting toward investments in Treasury bills and private repo.

The upcoming implementation of central clearing requirements in the U.S. Treasury market is expected to continue to change the landscape of the secured financing markets in the coming years.[4] Increases in volumes of cleared repo and reverse repo activity during 2024 reflected efforts by dealers to optimize netting opportunities across their balance sheets.

Chart 2

**Effective Federal Funds Rate and Secured Overnight Financing Rate Spreads to IORB**




Source: Federal Reserve Bank of New York.
Note: Figures are daily.

## REVERSE REPURCHASE AGREEMENTS

To provide a floor under overnight interest rates, the FOMC continued to direct the Desk to offer daily overnight reverse repo operations against SOMA Treasury securities holdings to a broad range of financial institutions, including MMFs, depository institutions, and government-sponsored enterprises (GSEs), with a per counterparty limit of $160 billion per day. As directed by the FOMC, the offering rate at the ON RRP facility remained at 5 basis points above the bottom of the target range for the federal funds rate throughout most of 2024. At its December meeting, the Committee directed the Desk to decrease this rate by 5 basis points to align it with the bottom of the federal funds target range. This technical adjustment had no bearing on the stance of monetary policy.

### *Operational Results*

Usage of the ON RRP facility continued to decline during 2024, as MMFs shifted toward other, more attractive investments. Daily ON RRP usage ranged between a high of $719.9 billion in January 2024 and a low of $98.4 billion during December. Over the year, MMFs and GSEs accounted for nearly 92 percent and 8 percent of the daily average participation in the ON RRP, respectively (Chart 3).

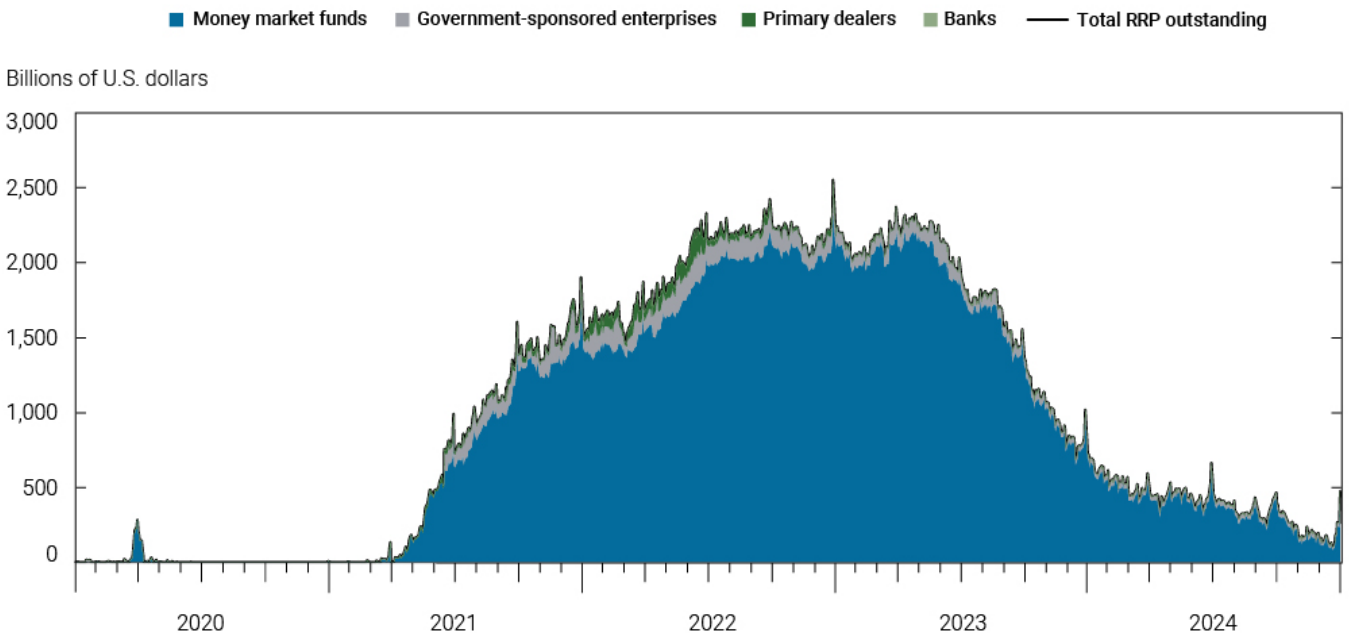
## REPURCHASE AGREEMENTS

### Standing Repo Facility

Under the SRF, the Desk offers daily overnight repo operations against Treasury securities, agency debt securities, and agency MBS to support the effective implementation of monetary policy and smooth market functioning. As directed by the FOMC, the Desk continued to offer daily overnight repo operations during 2024 with a minimum bid rate in line with the top of the federal funds target range and an aggregate limit of $500 billion. The Desk conducted one additional SRF operation on each business day from December 30, 2024, through January 3, 2025, to better understand how SRF operation times can support effective policy implementation and market functioning during periods of expected money market pressures. During this time, a morning operation was added to the regular schedule of afternoon SRF operations each day, with both operations settling in the afternoon.

Chart 3

**SOMA Reverse Repo Amounts Outstanding by Counterparty Type**




Source: Federal Reserve Bank of New York.
Note: Figures are daily and include overnight and term operations.

Box 1

## MONITORING RESERVE CONDITIONS ON THE DESK

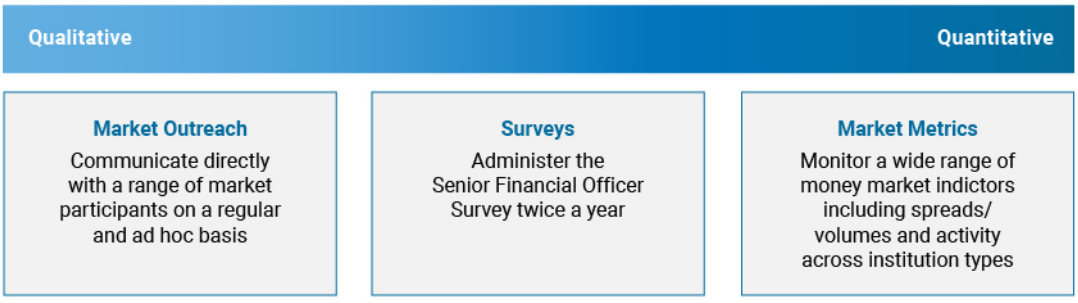
One of the key day-to-day responsibilities of the Open Market Trading Desk at the New York Fed (the Desk) is to monitor global markets and gather intelligence from a diverse set of market contacts to inform policy implementation. In line with the FOMC's plans for balance sheet reduction, the Desk has focused on monitoring the transition from an environment of abundant reserves toward one of ample reserves, in which the federal funds rate begins to show some sensitivity to changes in reserve levels.[a] Desk staff track indicators that may shed light not only on changes in reserve supply as the Federal Reserve's balance sheet decreases, but also on how the underlying demand for reserves is changing over time. Ultimately, these efforts help to address the question: as portfolio runoff continues, how will we know when the amount of reserves in the system is approaching "ample?"

The Desk regularly assesses a wide variety of money market indicators, starting with the spread of the EFFR and repo rates to the IORB rate. Five complementary indicators that represent a range of metrics monitored by the Desk include: the elasticity of reserves, the share of interbank payments settled late in the day, the level of banks' intraday overdrafts, the volume of domestic bank borrowing in the federal funds market, and the share of overnight repo that is transacted at or above the IORB rate.[b] The elasticity measure specifically draws on a methodology that estimates the sensitivity of changes in the federal funds rate to changes in reserves (the slope of the reserve demand curve).[c] A large and negative slope is associated with scarce reserves and a slope of zero is consistent with abundant reserves. The other four indicators are complementary to this measure of elasticity, relying on different sources of information about money markets and bank funding conditions.

In addition to these metrics, the Desk conducts daily market outreach across a diverse set of contacts and administers formal surveys semiannually. The Desk reaches out to collect intelligence from more than 250 market participants, including dealers, banks, research firms, corporates, insurers, hedge funds, pension funds, private equity funds, reserve managers, and industry bodies. This regular outreach helps the Desk understand trends in the functioning of money markets. Separately, the Desk and the Board of Governors conduct the Senior Financial Officer Survey (SFOS) twice a year to understand reserve management strategies across individual banks, as well as gain insights into the underlying factors that drive reserve demand.[d]

As the transition to an ample reserves environment continues, the Desk will monitor changes across money markets using the indicators and outreach highlighted in this box to continually inform monetary policy implementation.

**Overview of Selected Desk Reserve Monitoring Tools**




[a] See www.federalreserve.gov/newsevents/pressreleases/monetary20220504b.htm.

[b] See www.newyorkfed.org/newsevents/speeches/2024/per240926.

[c] See libertystreeteconomics.newyorkfed.org/2024/08/when-are-central-bank-reserves-ample/ and libertystreeteconomics.newyorkfed.org/2024/08/a-new-set-of-indicators-of-reserve-ampleness/ for further discussion.

[d] See https://www.federalreserve.gov/data/sfos/sfos.htm.

The number of SRF counterparties continued to expand during 2024, with twelve depository institutions added to the list of SRF counterparties, bringing the total number of depository institution counterparties at the end of the year to thirty-seven, in addition to the twenty-four primary dealers.[5]

*Operational Results*

With money market rates largely trading within the target range and generally below the SRF's minimum bid rate, for most of the year the facility usage was limited to periodic small-value transactions conducted by the New York Fed's counterparties for operational readiness purposes. The only material usage at the SRF occurred at the September quarter-end, with total usage of $2.6 billion. At that time, broader market repo rates were elevated, making the SRF more economical to use. (For further detail, see Box 2, "A Closer Look at the Role of the Standing Repo Facility in 2024.")

### Foreign and International Monetary Authority (FIMA) Repo Facility

In 2024, the FOMC continued to direct the Desk to offer overnight repurchase agreement transactions to approved FIMA account holders under the standing FIMA repo facility. In addition to the existing overnight operations, the FOMC also directed the Desk to offer a seven-day term repo operation, which became operational on February 21, 2024. The overnight FIMA repo offering rate was set equal to the minimum bid rate for the Standing Repo Facility, while the seven-day FIMA repo was offered at a rate equal to the rate on overnight index swaps of a weekly maturity plus 25 basis points.

The standing FIMA repo facility enables approved FIMA account holders to enter overnight or seven-day term repo transactions with the Federal Reserve against Treasury securities held in custody at the New York Fed. The facility provides a temporary source of dollar liquidity to approved FIMA accounts. As such, the facility complements the Federal Reserve's U.S. dollar liquidity swap lines by providing dollar liquidity to a broad range of foreign official institutions, helping to address pressures in global dollar funding markets that could otherwise affect financial market conditions in the United States. Its role as a liquidity backstop also helps to support the smooth functioning of financial markets.

*Operational Results*

Usage of the FIMA repo facility was minimal throughout 2024, given stable U.S. dollar funding market conditions, ample U.S. dollar liquidity, and the backstop nature of the facility's pricing. Usage of the facility by FIMA account holders during the year consisted entirely of small transactions for operational readiness purposes.

## CENTRAL BANK LIQUIDITY SWAPS

In 2024, the FOMC continued to direct the Desk to maintain standing U.S. dollar and foreign currency liquidity swap lines with a network of five other major central banks—the Bank of Canada (BoC), Bank of England (BoE), Bank of Japan (BoJ), European Central Bank (ECB), and Swiss National Bank (SNB). The U.S. dollar liquidity swap lines, which involve a temporary exchange of currencies between two central banks, provide a liquidity backstop to help ease strains in global funding markets or reduce the risk that they could emerge, thereby helping to mitigate the effects of such strains on the supply of credit to households and businesses in the United States, as well as abroad. The foreign central bank receiving dollars lends the dollars in secured transactions with local banks. U.S. dollar swap operations were offered weekly at a one-week tenor during the year, which is typical practice when dollar funding conditions are smooth.

*Operational Results*

Usage of the U.S. dollar liquidity swap lines was modest in 2024, as global dollar funding markets largely functioned smoothly against a backdrop of ample dollar liquidity. Four of the five central banks with standing swap line arrangements drew on their lines in 2024 (BoE, BoJ, ECB, and SNB).

Box 2

## A CLOSER LOOK AT THE STANDING REPO FACILITY IN 2024

The Federal Reserve implements the stance of monetary policy by setting a target range for the effective federal funds rate, and it supports trading within this range through a set of standing facilities.[a] One such facility is the Standing Repo Facility (SRF), which offers liquidity to a set of eligible counterparties to dampen upward pressure in repo markets that can spill over into the federal funds market.[b] The minimum bid rate for the SRF is set by the FOMC and during 2024 was equal to the top of the target range for the federal funds rate, ending the year at 4.50 percent. This design encourages reliance on private funding markets, while ensuring a readily available source of liquidity to prevent undue upward pressure on overnight borrowing rates and support smooth market functioning. Even with little or no usage, the SRF can dampen upward pressure on repo rates if it is seen as a credible option that provides counterparties bargaining power with their cash lenders.

Nonetheless, the SRF is not designed to be a comprehensive backstop for the broader repo market. The repo market is composed of several segments with different mixes of market participants and structures, such as options in some segments to centrally clear trades or operate via custody agents. The SRF operates in one specific segment of repo markets, the uncleared triparty repo market, where an agent handles custody and settlement of securities between cash borrowers and lenders.

While the SRF rate may at times be lower than rates in other repo market segments, market participants may continue to operate in other repo segments for reasons other than price. One explanation is the different composition of market participants across segments. For example, the triparty market is primarily composed of MMFs lending cash to dealer intermediaries, while the uncleared bilateral market is largely dealers lending to clients at higher rates, such as to hedge funds. Non-triparty segments also have some structural features that offer attractive, non-price advantages for market participants, such as greater opportunities to net trades via central clearing or earlier timing of intraday settlement.[c]

These features of repo market segments help to explain the relatively modest SRF usage around the end of the third quarter of 2024.[d] At that time, trading volume in private repo markets at rates above the SRF rate was significant but largely involved transactions outside the uncleared triparty repo market. This suggests that activity at higher rates in these non-triparty repo segments remained attractive to intermediaries despite the lower SRF rate. Nonetheless, the modest SRF usage indicates that some counterparties of the facility were willing and able to use the facility at the prevailing rate.

In December 2024, the Open Market Trading Desk at the New York Fed (the Desk) announced an additional SRF operation each morning on the business days leading into year-end, in addition to the regularly scheduled afternoon operation. This technical exercise allowed the Desk to better understand how the timing of SRF auctions could support market functioning during periods of expected money market pressures, such as year-end. On these days, triparty repo rates rose to levels just under the SRF offering rate, but there was no SRF usage at either operation. Market participants suggested that advance knowledge of the availability of the morning SRF operations supported smooth market functioning, potentially limiting upward pressure on repo rates over year-end. Desk staff continue to analyze data and market commentary related to SRF effectiveness and have conducted similar SRF technical exercises into 2025 to continue to improve the facility's design.

[a] For a more comprehensive discussion, see www.newyorkfed.org/newsevents/speeches/2024/per241112.

[b] Counterparties include primary dealers and depository institutions. Eligible collateral for the SRF includes Treasury securities, agency debt securities, and agency MBS.

[c] SRF operations are cleared and settled on the tri-party repo platform operated by the Bank of New York Mellon and generally occur in the afternoon. By contrast, the majority of bilateral repo market volume and settlement occurs in the morning.

[d] See tellerwindow.newyorkfed.org/2025/01/16/monitoring-money-market-dynamics-around-year-end/ for additional details on period-end dynamics across markets.

# TREASURY SECURITIES OPERATIONS

In accordance with its Plans for Reducing the Size of the Federal Reserve's Balance Sheet, the FOMC continued to direct the Desk to allow Treasury securities to be redeemed without reinvestment up to a set limit, or cap. In addition, it announced a lowering of the cap on these redemptions at its May 2024 meeting, effective in June, which reduced the redemption cap on maturing Treasury securities from $60 billion per month to $25 billion per month (Chart 4). The FOMC continued to direct the Desk to reinvest at auction all principal payments from maturing Treasury holdings above the monthly redemption cap. The Desk continued to redeem coupon securities first, followed by bills if maturing coupons were insufficient to reach the redemption cap.

## Treasury Security Asset Purchases

The Desk did not conduct any Treasury security purchases in the secondary market during the year outside of periodic small-value operations for readiness purposes. (See the "Operational Readiness" section of this report for a summary of small-value exercises.)

## Reinvestments of Treasury Security Principal Payments

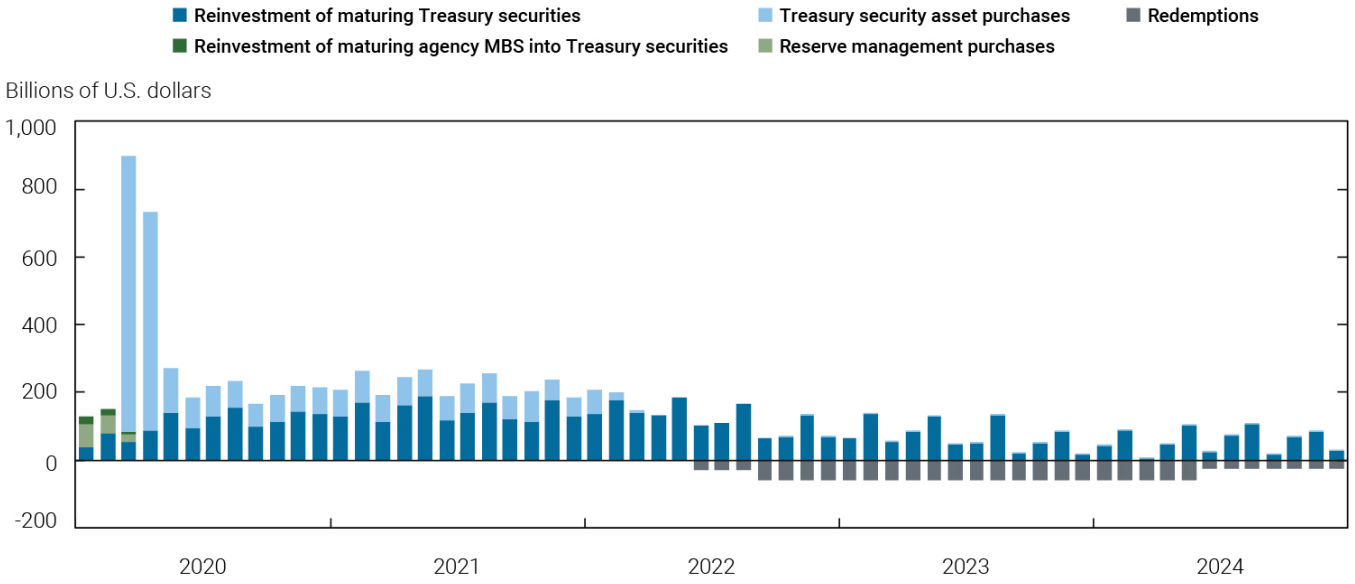
To reinvest maturing Treasury securities, the Desk placed noncompetitive bids at Treasury auctions. Maturing Treasury bills were reinvested into newly issued bills, while coupons were reinvested into newly issued coupons. Maturing amounts were apportioned on a pro rata basis according to the issuance amounts of securities that settled on the matching maturity date. The noncompetitive bids by the Desk at auctions for Treasury securities are treated as add-ons to announced auctions sizes.

### *Operational Results*

The Desk reinvested a total of $678.5 billion of maturing Treasury securities during 2024, down from $860.5 billion in 2023 (Chart 5). Reinvestments consisted of $486.5 billion in Treasury bills and $192.0 billion in Treasury coupons. A total of $475.0 billion in Treasury securities were redeemed, comprising $453.2 billion in coupons and $21.8 billion in bills.

Chart 4

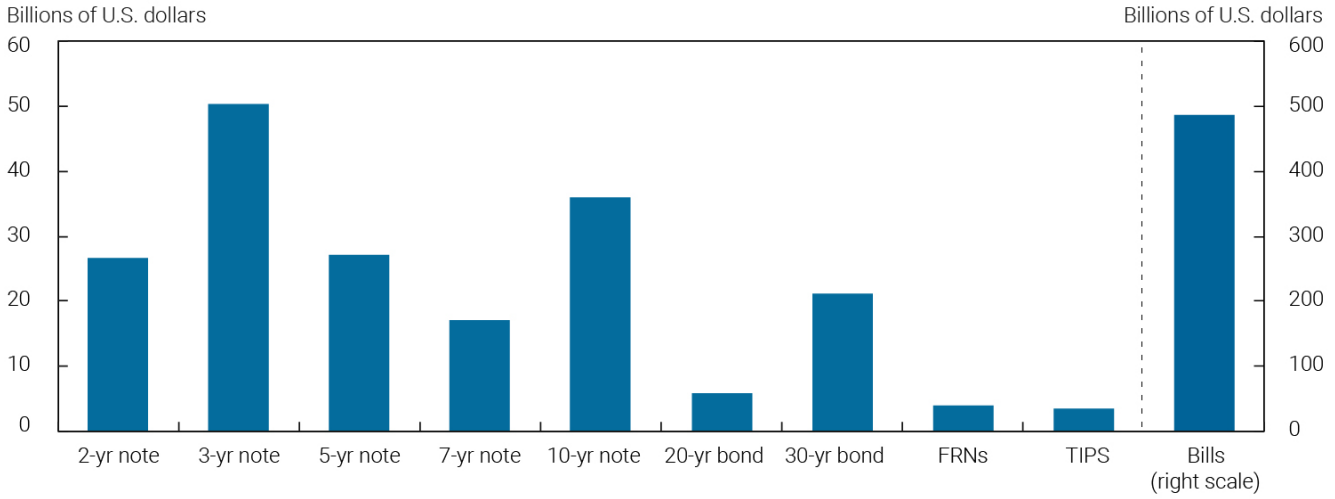
**SOMA Treasury Transactions**




Source: Federal Reserve Bank of New York.

Chart 5

**Distribution of SOMA Reinvestments at Treasury Auctions in 2024**




Source: Federal Reserve Bank of New York.
Note: Bars show the cumulative amount of Treasury securities acquired through reinvestments in 2024.

## AGENCY MBS OPERATIONS

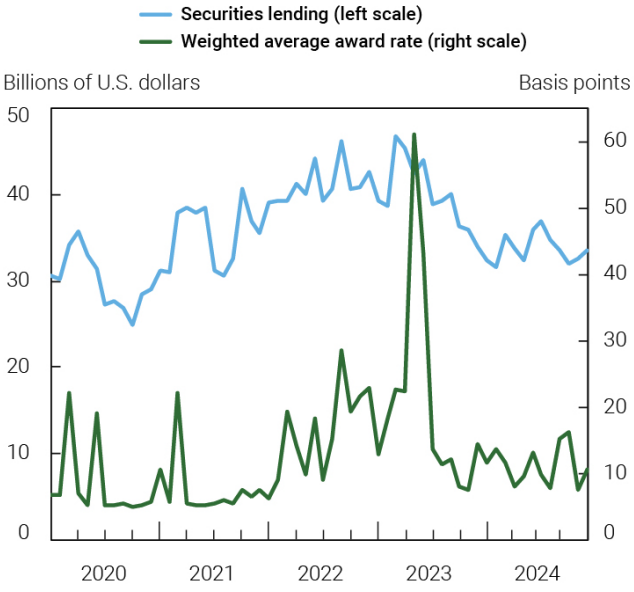
The FOMC continued to direct the Desk to reinvest principal payments of agency MBS only to the extent that they exceeded a monthly cap of $35 billion, in accordance with its Plans for Reducing the Size of the Federal Reserve's Balance Sheet. Beginning in June 2024, the FOMC directed the Desk to reinvest principal payments received from agency debt and agency MBS holdings in excess of the $35 billion monthly cap into Treasury securities. Principal paydowns on SOMA holdings of agency MBS did not exceed the cap during any month in 2024, and no agency MBS operations were conducted by the Desk outside of small-value exercises for operational readiness purposes.

## SECURITIES LENDING

During 2024, the FOMC continued to direct the Desk to lend eligible SOMA Treasury and agency debt securities to primary dealers on an overnight basis. These operations provide a secondary, temporary source of securities to the market. To the extent that the SOMA holds specific securities that are in demand, such as when individual issues experience high levels of short positioning or

Chart 6

**SOMA Securities Lending in Treasuries**




Source: Federal Reserve Bank of New York.
Note: Figures are monthly.

elevated settlement fails, securities lending can help alleviate scarcity for those securities.

*Operational Results*

During 2024, monthly lending volume in Treasury securities averaged $33.9 billion and ranged between $31 billion and $37 billion (Chart 6). Variations in the weighted average award rates were modest compared to recent years and the weighted average fee decreased to 12 basis points from 21 basis points in 2023. The modest, temporary increases in the weighted average fee at times during the year were driven by specialness related to normal auction cycle dynamics.

## FOREIGN RESERVES MANAGEMENT

The Federal Reserve holds a portfolio of euro- and yen-denominated assets, which could be used to fund a potential foreign exchange intervention.[6] The size and currency composition of foreign reserve holdings are largely a result of past intervention activity in foreign exchange markets. In 2024, the Desk was not directed to undertake any foreign exchange intervention activity.

The FOMC directs the Desk to manage the SOMA's foreign currency holdings to ensure sufficient liquidity, maintain a high degree of safety, and, once these objectives are met, provide the highest rate of return in each currency. The Desk passively manages its foreign currency reserve holdings, with purchases and sales conducted to meet an internal asset allocation target that is based on the FOMC's objectives and updated annually. Foreign currency reserves may be invested on an outright basis in Dutch, French, German, and Japanese government securities, as well as in deposits at the Bank for International Settlements and foreign central banks such as the Deutsche Bundesbank, Banque de France, De Nederlandsche Bank, and Bank of Japan. The Desk may also invest in Dutch, French, and German government securities under agreements for repurchase of such securities.

### Investment Activity

In 2024, the Desk purchased or sold euro- and Japanese yen–denominated sovereign debt securities in the secondary market consistent with the internal asset allocation target. The Desk continued to hold foreign currency reserves in deposits at official institutions, and at times held European government securities under agreements for repurchase.[7] As of year-end 2024, the SOMA foreign currency portfolio totaled $17.4 billion, slightly lower than at year-end 2023.[8] (Foreign currency–denominated holdings are described further in the "Selected Balance Sheet Developments" section of this report.)

# SELECTED BALANCE SHEET DEVELOPMENTS

The FOMC reduced the redemption caps on Treasury securities during 2024, continuing to slow the balance sheet reduction that began in 2022. The SOMA securities runoff was the main driver of the $766.8 billion decline in total assets during the year, along with the significant decline in the Bank Term Funding Program. Total assets reached a level of $7.07 trillion at year-end, with total Federal Reserve assets as a share of nominal GDP declining to 24 percent from 28 percent in 2023 (Table 2).

The composition of Federal Reserve liabilities shifted over the course of the year in response to broader money market conditions. The significant decrease in the size of the ON RRP facility during 2024 was the main driver of this change, with the facility reaching its lowest daily level since 2021 in mid-December.[9] Nonetheless, the reduction in SOMA securities holdings was greater than the decline in the ON RRP facility, and year-end reserve balances declined by $242.4 billion on net.

SOMA interest expenses continued to exceed interest income during the year, and net income was negative $74.7 billion in 2024, compared to negative $117.2 billion in 2023. The Federal Reserve System's deferred asset reached $216.0 billion at the end of 2024, compared to $133.3 billion at the end of 2023, reflecting the additional cumulative negative net income during the year.

## SELECTED ASSETS

The Federal Reserve's assets can be divided into SOMA and non-SOMA assets. The SOMA assets make up around 95 percent of the Federal Reserve's assets and are mainly composed of domestic securities holdings, with smaller proportions of foreign reserve holdings, repurchase agreements, and U.S. dollar liquidity swaps. Non-SOMA assets include loans made through the discount window and credit extensions from the emergency credit and liquidity facilities.

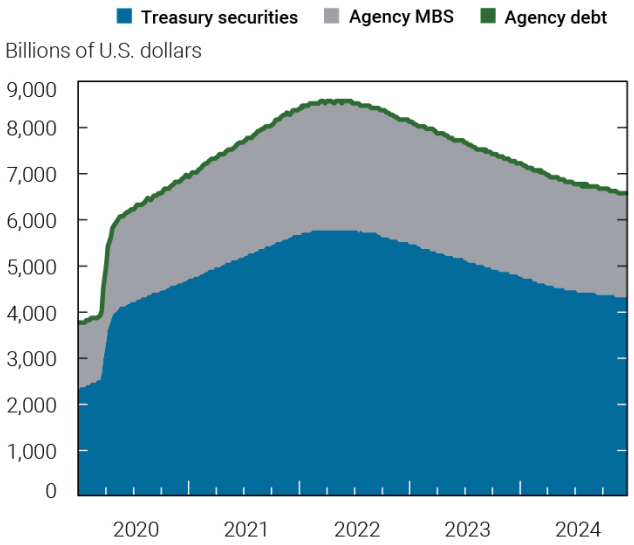
### SOMA Domestic Securities Holdings

#### PORTFOLIO SIZE AND COMPOSITION

Most of the SOMA domestic securities portfolio is composed of Treasury securities and agency MBS (Chart 7). In accordance with the FOMC's Plans for Reducing the Size of the Federal Reserve's Balance Sheet, the size of the

Chart 7

**Composition of SOMA Domestic Securities Holdings**




Source: Board of Governors of the Federal Reserve System.
Notes: Figures are weekly and include unsettled holdings. Agency CMBS are included in the agency MBS amount.

SOMA portfolio continued to decrease as securities were allowed to mature or pay down up to the amount of the monthly redemption caps without reinvestment. The SOMA domestic securities portfolio declined by nearly $700 billion over 2024 to reach $6.53 trillion, driven mainly by decreases in Treasury securities holdings.

At year-end 2024, Treasury securities made up roughly 66 percent of the total portfolio and agency MBS accounted for roughly 34 percent. Agency commercial mortgage-backed securities (CMBS) and agency debt each made up less than 1 percent of the portfolio.

Table 2

**Changes in Selected Federal Reserve Assets and Liabilities**

Billions of U.S. Dollars

| | Assets | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | U.S. Treasury Securities | Agency MBS, Agency Debt, and Agency CMBS | Repo | Central Bank Liquidity Swaps | Primary Credit Program | Emergency Credit and Liquidity Facilities | Other Assets | Total Assets |
| **Outstanding as of:** | | | | | | | | |
| December 29, 2023 | 4,785.1 | 2,434.1 | 0.0 | 1.4 | 3.5 | 139.7 | 471.8 | 7,835.6 |
| December 31, 2024 | 4,291.1 | 2,235.6 | 0.0 | 1.1 | 3.2 | 9.9 | 527.8 | 7,068.7 |
| **Changes in the period** | | | | | | | | |
| Dec 29, 2023 to Dec 31, 2024 | (494.0) | (198.5) | 0.0 | (0.2) | (0.2) | (129.8) | 56.0 | (766.8) |

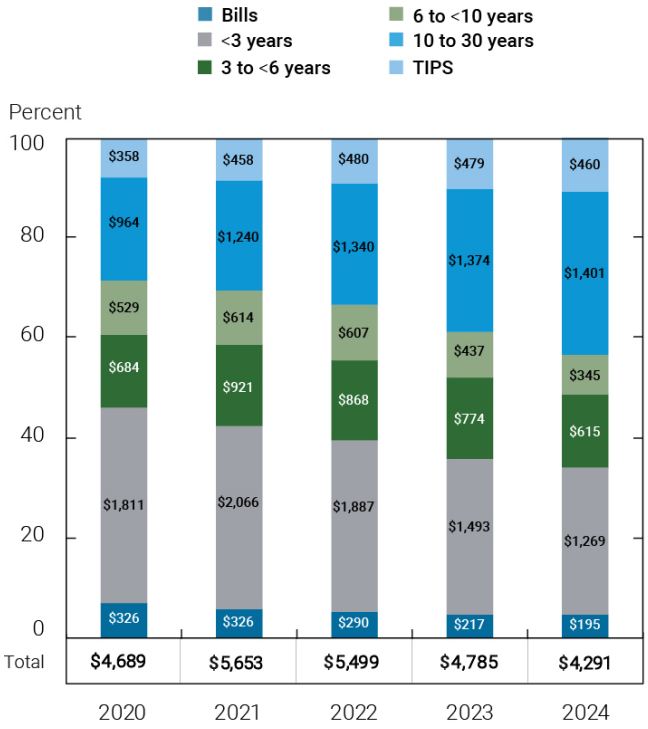
| | Liabilities and Capital | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Reserves | Federal Reserve Notes | Treasury General Account | ON RRP | FIMA Reverse Repo Pool | Other Liabilities and Capital | Subtotal of Non-Reserve Liabilities | Total Liabilities and Capital |
| **Outstanding as of:** | | | | | | | | |
| December 29, 2023 | 3,134.8 | 2,297.1 | 768.6 | 1,018.5 | 372.2 | 244.5 | 4,700.8 | 7,835.6 |
| December 31, 2024 | 2,892.4 | 2,322.5 | 721.9 | 473.5 | 414.9 | 243.5 | 4,176.4 | 7,068.7 |
| **Changes in the period** | | | | | | | | |
| Dec 29, 2023 to Dec 31, 2024 | (242.4) | 25.5 | (46.7) | (545.0) | 42.7 | (1.0) | (524.5) | (766.8) |

Sources: Federal Reserve Bank of New York; Board of Governors of the Federal Reserve System.
Notes: Securities balances are listed at par value and exclude unsettled MBS. The emergency credit and liquidity facilities category includes loan balances of the Bank Term Funding Program and of the COVID-19-related facilities. Other assets include primarily unamortized net premiums and accrued interest receivable on securities, foreign currency–denominated holdings, limited liability company investments of U.S. Treasury equity in nonmarketable Treasury securities, and the deferred asset. Other liabilities and capital primarily include deposits from international and multilateral organizations, government-sponsored enterprises, designated financial utilities, and capital. Changes in the period may differ from balances due to rounding.

Chart 8

**Distribution of SOMA Treasury Holdings**

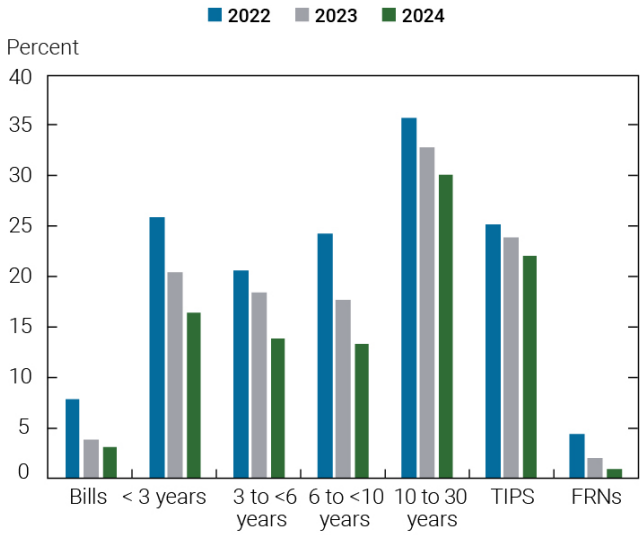
Percentage Share and Billions of U.S. Dollars




Source: Federal Reserve Bank of New York.
Notes: Figures are as of year-end and may be rounded. Floating Rate Notes (FRNs) made up less than 1 percent of total Treasury securities holdings in 2020 ($17 billion), 2021 ($28 billion), 2022 ($27 billion), 2023 ($12 billion), and 2024 ($6 billion).

Chart 9

**SOMA Treasury Holdings as a Share of Outstanding Treasury Supply**




Source: Federal Reserve Bank of New York; U.S. Treasury Department.
Note: Figures are as of year-end.

*Treasury Holdings*

During 2024, SOMA Treasury securities holdings declined from $4.79 trillion to $4.29 trillion, driven by a $472.4 billion decrease in Treasury coupon holdings and a $21.6 billion decrease in Treasury bill holdings. Holdings of Treasury nominal coupon securities with less than ten years to maturity fell, while those of coupon securities with ten to thirty years to maturity increased (Chart 8). Holdings of Treasury bills, Treasury Inflation-Protected Securities (TIPS), and Floating Rate Notes (FRNs) decreased modestly over the year. The weighted average maturity (WAM) of the portfolio increased from 8.4 years in 2023 to 8.8 years in 2024. Holdings of Treasury securities with maturities under ten years matured at a faster pace than reinvestments in those securities, which drove the modest increase in WAM.

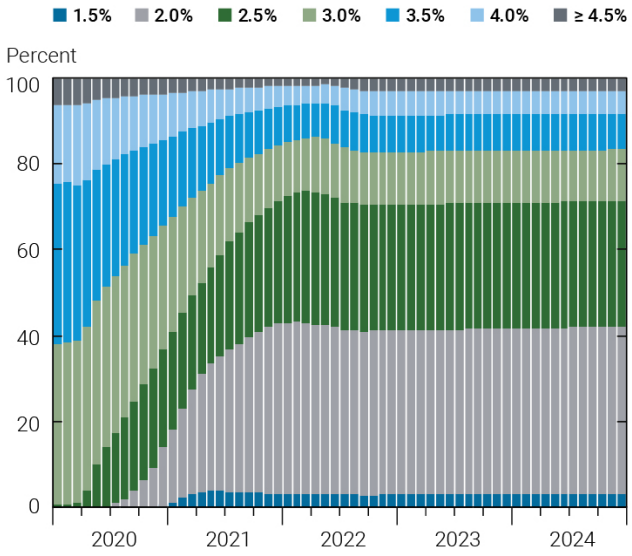
The share of total marketable Treasury securities outstanding held in the SOMA portfolio decreased from 18 percent in 2023 to 15 percent in 2024, with the decline occurring across all sectors (Chart 9). The overall decline was driven by the ongoing runoff of Treasury securities holdings along with an increase of about $1.91 trillion in marketable Treasury debt outstanding. The WAM of the SOMA Treasury portfolio (8.8 years) remained above that of the outstanding Treasury universe (5.9 years).

*Agency MBS Holdings*

In 2024, SOMA agency MBS holdings decreased by $198.3 billion to $2.23 trillion. During the year, principal payments on SOMA agency MBS averaged $16.5 billion per month, which was roughly similar to the pace in 2023. The low level of principal payments on SOMA agency MBS reflected the impact of continued elevated mortgage rates, which resulted in low prepayments among homeowners. Consequently, there were no reinvestments by the Desk during the year, as principal paydowns did not exceed the $35 billion monthly redemption cap. The weighted average life of the agency MBS portfolio only modestly changed, decreasing from 8.6 years to 8.2 years.

Chart 10

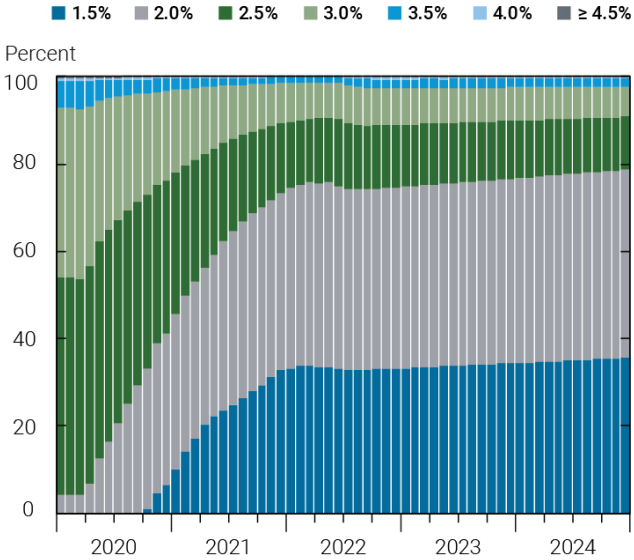
**Distribution of SOMA Holdings of Thirty-Year Agency MBS by Coupon**




Source: Federal Reserve Bank of New York.

Chart 11

**Distribution of SOMA Holdings of Fifteen-Year Agency MBS by Coupon**




Source: Federal Reserve Bank of New York.

The composition of the SOMA agency MBS portfolio was similar to that at year-end 2023, reflecting the low level of principal paydowns across the portfolio during 2024 (Charts 10 and 11). More than 90 percent of agency MBS holdings had coupons of 3.5 percent or less (Chart 12). Holdings of agency MBS across issuers were also little changed in 2024, with 41 percent of agency MBS holdings guaranteed by Fannie Mae, 38 percent by Freddie Mac, and 21 percent by Ginnie Mae.[10]

SOMA holdings of agency MBS as a share of the outstanding stock of fixed-rate agency MBS decreased from 30 percent to 27 percent during the year. The weighted average coupon rate on SOMA holdings of agency MBS at year-end 2024 was 2.5 percent, below the outstanding market's weighted average coupon rate of 3.4 percent, reflecting the substantial purchases made from 2020 through 2022 at historically low mortgage rates.

### *CUSIP Aggregation*

The Desk continued to consolidate individual agency MBS into larger-value securities during the year. This process, known as CUSIP aggregation, groups agency MBS holdings with similar characteristics—including issuing agency, coupon, and original term to maturity—into fewer, larger securities. By reducing the number of individual securities held in the SOMA portfolio, CUSIP aggregation can lower operational risk, simplify back-office portfolio administration, and reduce custodial costs that are assessed on an individual CUSIP basis. Over the course of 2024, the total number of SOMA agency MBS CUSIPs was reduced from 20,217 to 9,306.

### *Agency Debt Holdings*

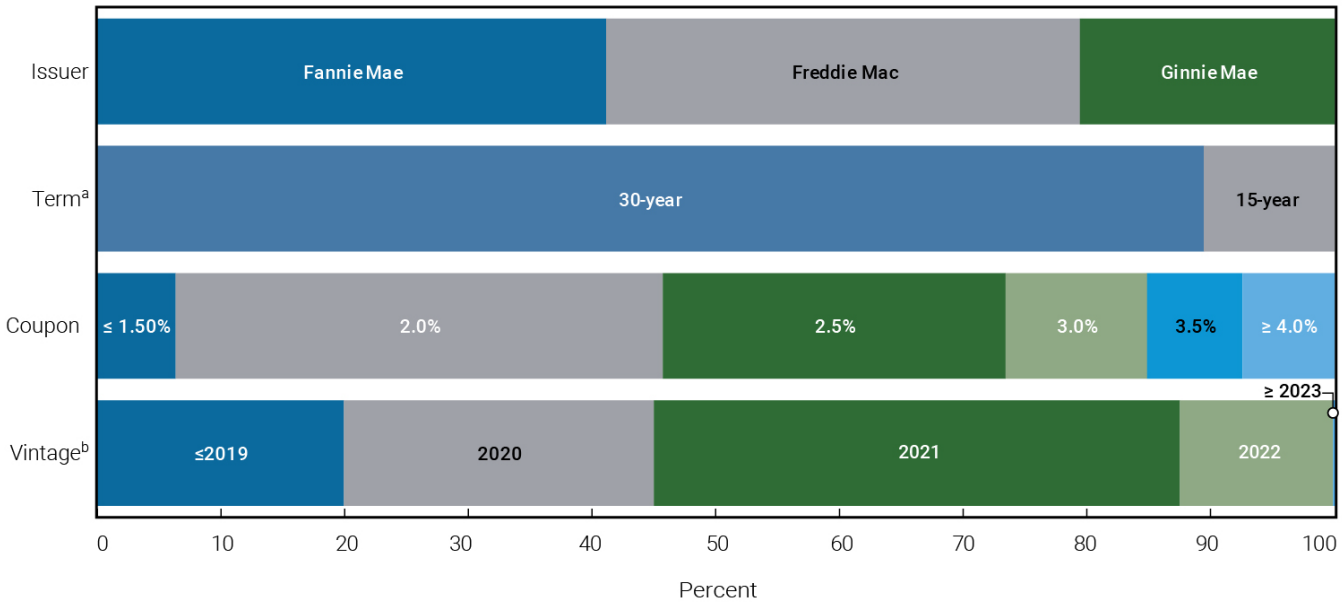
SOMA agency debt holdings were unchanged at $2.3 billion during 2024. These holdings include securities issued by Fannie Mae and Freddie Mac and represent the remainder of the $172 billion of agency debt acquired by the Federal Reserve between 2008 and 2010. These holdings are scheduled to mature between 2029 and 2032.

### *Agency CMBS Holdings*

SOMA agency CMBS holdings decreased by $180 million to reach $8.0 billion due to principal payments. The Desk did not purchase any new agency CMBS during 2024 and agency CMBS portfolio principal payments were not reinvested. The composition of agency CMBS holdings was approximately 79 percent Fannie Mae securities, 9 percent Ginnie Mae securities, and 12 percent Freddie Mac securities at the end of 2024.

Chart 12

**Distribution of SOMA Agency MBS Holdings**




Source: Federal Reserve Bank of New York.
Notes: Figures are as of December 31, 2024. Holdings total $2.23 trillion and consist of settled holdings only.
[a] Less than 1 percent of holdings are ten- and twenty-year agency MBS, which may be delivered into fifteen- and thirty-year TBA contracts, respectively.
[b] Agency MBS securities originated in 2023 and 2024 reflect small-value exercises.

### PORTFOLIO RISK METRICS

Duration measures the sensitivity of a security's price to changes in interest rates and may be thought of as the present value–weighted average time to maturity of cash flows from the security. The longer the duration of a security, the more sensitive it is to changes in interest rates. Duration is generally greater for longer-maturity and lower-coupon securities.

During 2024, the par-weighted average duration of total SOMA domestic securities holdings was relatively unchanged at 6.6 years (Chart 13).[11] The Treasury portfolio duration increased modestly—by 0.1 years to 6.7 years—as the reduction in duration due to the aging of the existing holdings was more than offset by increases in duration due to Treasury reinvestments.[12] The duration of the agency MBS portfolio decreased by 0.1 years to 6.5 years.[13] The duration of agency debt declined by 0.7 years, but this had minimal impact on the average duration of the total portfolio, given the limited amount of agency debt holdings.

Measures of the dollar value of duration risk held in the SOMA portfolio moved modestly lower during 2024. One method of measuring dollar duration is in terms of ten-year equivalents—that is, the amount of ten-year Treasury securities that would be needed to match the duration risk in the portfolio.[14] The SOMA portfolio's ten-year equivalent measure decreased from $5.96 trillion at the end of 2023 to $5.44 trillion at the end of 2024, driven by the decline in portfolio size (Chart 14).

## SOMA Repurchase Agreements

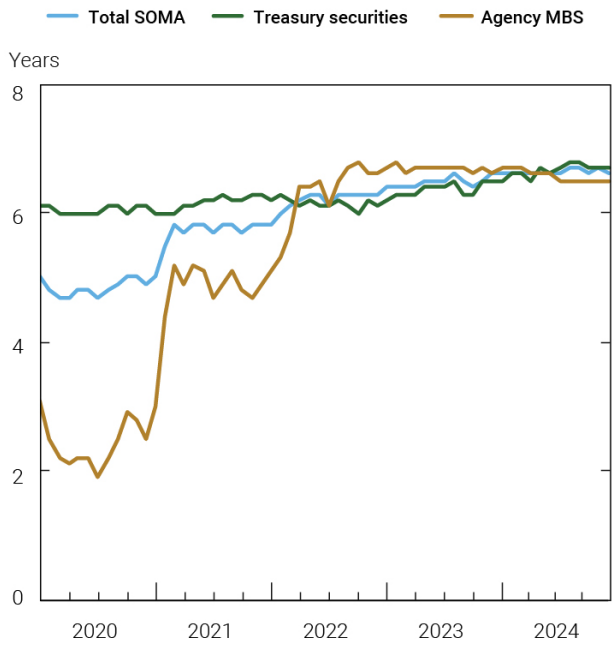
There were no outstanding repurchase agreements under either the SRF or the FIMA repo facility at year-end 2024. The minimal usage of these facilities throughout 2024 reflected generally stable funding conditions and ample dollar liquidity. (For more information on repurchase agreement operations, see the "Open Market Operations" section of this report.)

## Central Bank Liquidity Swaps

Smooth market functioning and liquidity conditions in global dollar funding markets resulted in low usage of the

Chart 13

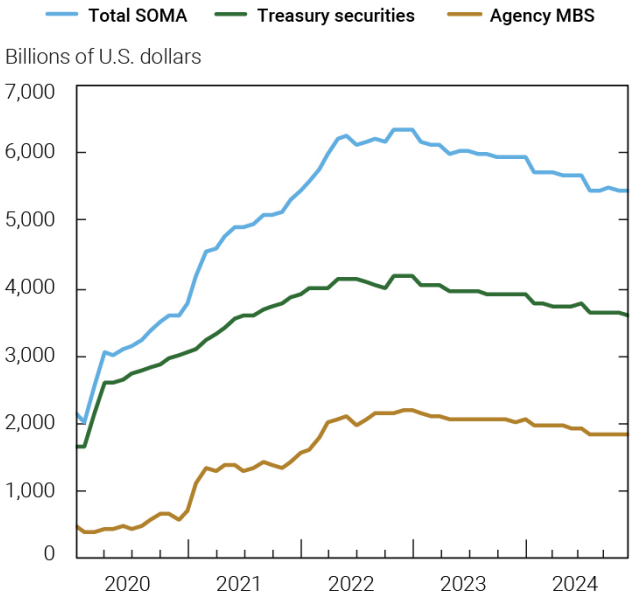
**Average Duration of SOMA Domestic Securities Holdings**




Source: Federal Reserve Bank of New York.
Notes: Figures are as of month-end and include unsettled MBS. Calculations are par-weighted. Total SOMA and agency MBS do not include agency CMBS. Agency debt is not shown given the small balance of holdings.

Chart 14

**SOMA Domestic Securities Holdings in Ten-Year Equivalents**




Source: Federal Reserve Bank of New York.
Notes: Figures are as of month-end and include unsettled MBS. Calculations are par-weighted. Total SOMA and agency MBS do not include agency CMBS. Agency debt is not shown given the small balance of holdings.

swap lines during the year. Across U.S. dollar swap lines, the average outstanding balance was $201 million in 2024, compared to $354 million in 2023. In aggregate, these balances reached a temporary level of $1.1 billion at year-end, similar to the $1.4 billion level seen at year-end 2023. Swaps outstanding typically rise temporarily in late December and fully reverse by early January. (For more information on central bank swaps, see the "Open Market Operations" section of this report.)

## SOMA Foreign Currency–Denominated Holdings

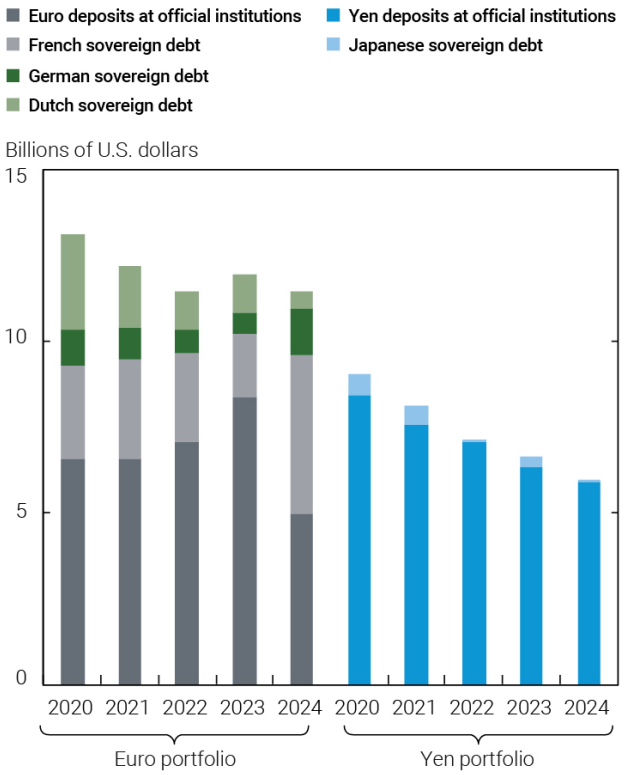
The Federal Reserve holds foreign currency–denominated assets, which are invested to ensure adequate liquidity to meet potential foreign exchange intervention needs. As of year-end 2024, the SOMA foreign currency portfolio totaled $17.4 billion, composed of $11.5 billion of euro-denominated assets and $5.9 billion of yen-denominated assets.

The total value of the portfolio in U.S. dollar terms fell on net over the year due to the depreciation of the euro and the Japanese yen against the U.S. dollar. While the U.S. dollar value of the portfolio declined, portfolio income in local currency terms increased in 2024, reflecting the higher average policy interest rates in the euro area and Japan.

The share of euro-denominated government debt obligations increased and the share of cash held on deposit at official institutions decreased, while the reverse occurred in the yen-denominated portfolio (Chart 15). The Macaulay duration of the euro-denominated portfolio rose by 0.6 months to 10.5 months during 2024.[15] The Macaulay duration of the yen-denominated portfolio fell from 0.4 months to less than one day. (For more information on the foreign currency–denominated portfolio, see the "Open Market Operations" section of this report.)

Chart 15

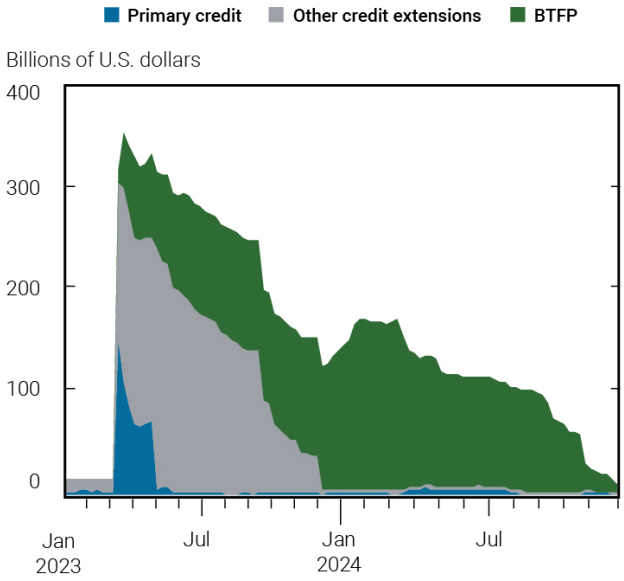
**Distribution of SOMA Foreign Currency Portfolio Holdings**




Source: Federal Reserve Bank of New York.
Note: Figures reflect amortized cost.

Chart 16

**Primary Credit, Other Credit Extensions, and Bank Term Funding Program (BTFP)**




Source: Board of Governors of the Federal Reserve System.
Notes: "Other credit extensions" includes loans to depository institutions that were subsequently placed into Federal Deposit Insurance Corporation (FDIC) receivership. The Federal Reserve Banks' loans to these depository institutions are secured by pledged collateral and the FDIC provides repayment guarantees.

## Primary Credit and Bank Term Funding Programs

### *Primary Credit Program*

The Federal Reserve's primary credit program serves as a convenient and ready source of liquidity for depository institutions in generally sound financial condition and with eligible collateral pledged to a Reserve Bank. Loans are initiated by depository institutions and approved by Reserve Banks and are granted for terms of up to ninety days. During 2024, the primary credit rate was lowered from 5.50 percent to 4.50 percent, decreasing in line with the federal funds target range throughout the year.

Primary credit usage decreased on average during 2024 compared to 2023, with outstanding balances averaging $3.7 billion over the year. Primary credit saw some increases in usage after the Bank Term Funding Program expired in March, as some institutions moved to primary credit borrowing when their BTFP loans matured.

Small domestic banks with total assets of less than $50 billion accounted for the majority of the total loan originations under primary credit in 2024.

### *Bank Term Funding Program*

The Bank Term Funding Program was established by the Federal Reserve Board, with the approval of the Treasury Secretary, as an emergency credit program under Section 13(3) of the Federal Reserve Act on March 12, 2023, in response to emerging funding stresses in the banking system. The BTFP expired on March 12, 2024, when it ceased extending new credit, but given the one-year term of most original loans, some loans originated in 2024 remained outstanding through early March 2025.

BTFP balances decreased significantly over 2024, although draws on the facility increased early in the year as overnight index swap rates used to price the loans were generally attractive compared to other funding alternatives

(Chart 16). BTFP balances at year-end were $4.4 billion, compared to $129.2 billion at year-end 2023.

*Emergency Credit and Liquidity Facilities*

The total balances of the remaining emergency credit and liquidity facilities established in response to the financial disruptions associated with the COVID-19 pandemic declined to $5.4 billion in 2024, a decrease of $5.1 billion over the year. The balances of the two remaining facilities, the Main Street Lending Program (MSLP) and Paycheck Protection Program Liquidity Facility (PPPLF), decreased primarily because of maturities or prepayments by borrowers during 2024. The final maturity dates for both the MSLP and PPPLF are in 2025 and 2026, respectively. The Federal Reserve Board continues to provide periodic reports to Congress on the facilities.[16]

## SELECTED LIABILITIES

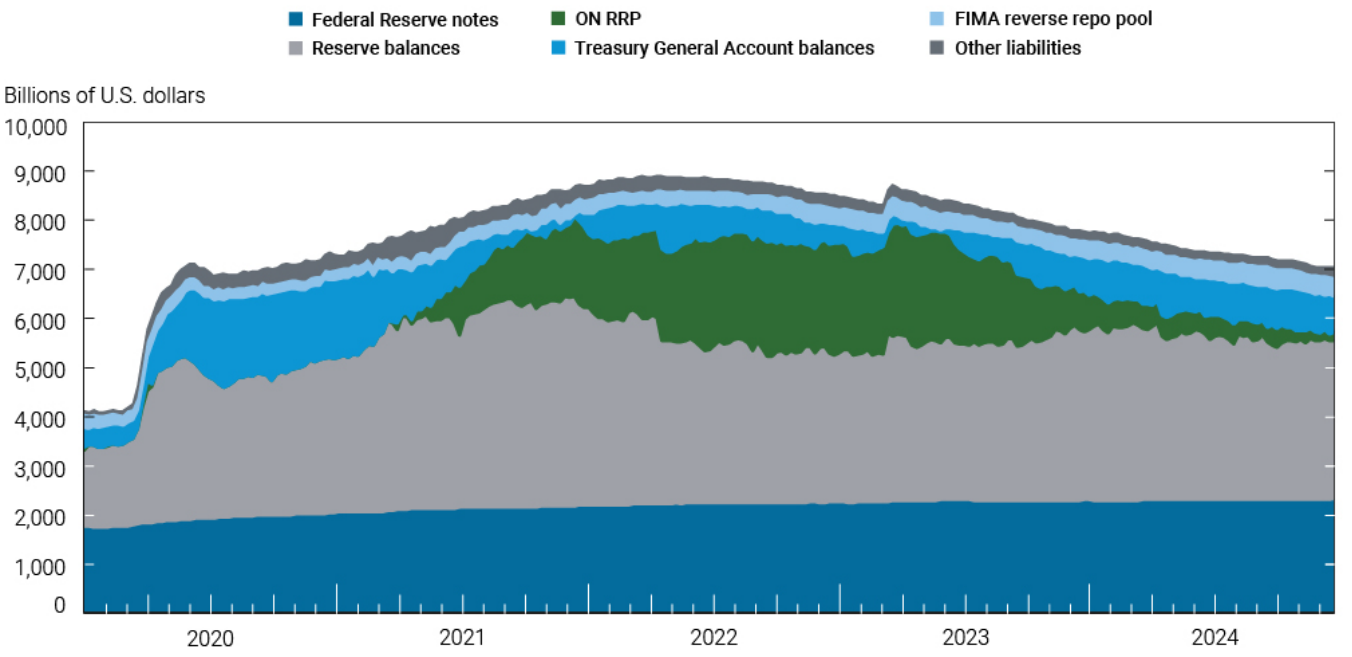
Total liabilities and capital at the Federal Reserve declined in line with the decrease in total assets, reaching $7.07 trillion by year-end from a level of $7.84 trillion at year-end 2023 (Chart 17). Changes in the composition of Federal Reserve liabilities over the year were primarily driven by the significant decline in the ON RRP. The ON RRP steadily declined during the year as MMFs reallocated out of the facility toward more attractive investments. In addition, reserves decreased modestly while remaining at abundant levels.

### Reserve Balances

Reserve balances averaged approximately $3.2 trillion in December 2024 and reached a year-end level of $2.89 trillion, a decrease of $242.4 billion from year-end 2023. Reserves broadly trended lower during the year due to SOMA portfolio runoff and decreases in BTFP facility balances, partially offset by significant declines in the ON RRP (Chart 18).

Chart 17

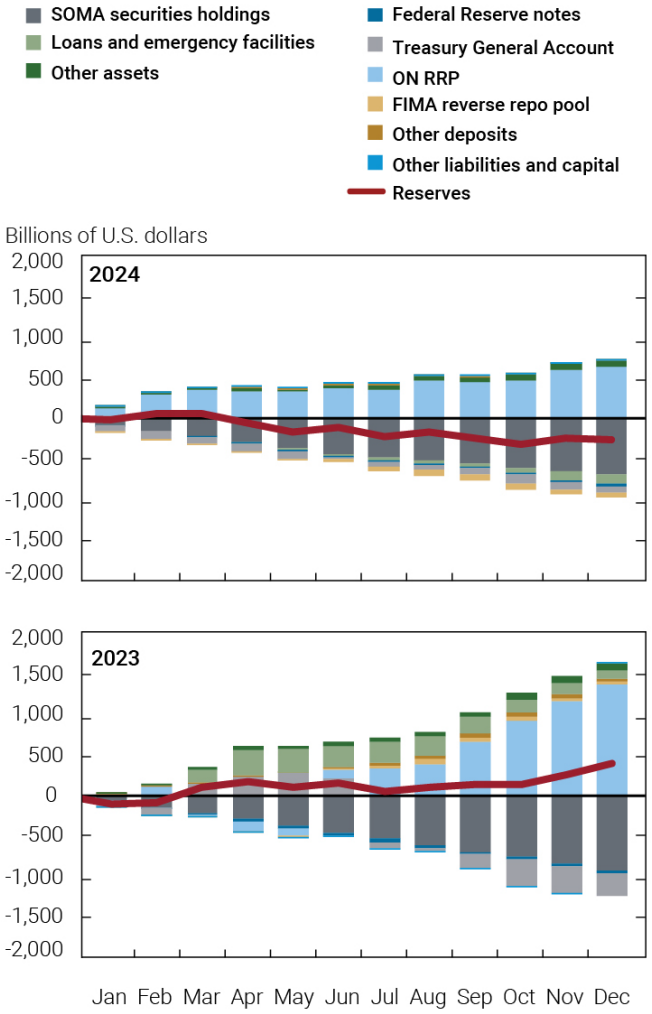
**Federal Reserve Liabilities**




Source: Board of Governors of the Federal Reserve System.
Notes: Figures are weekly. Other liabilities include deposits from international and multilateral organizations, government-sponsored enterprises, designated financial market utilities, and other non-reserve liabilities.

Chart 18

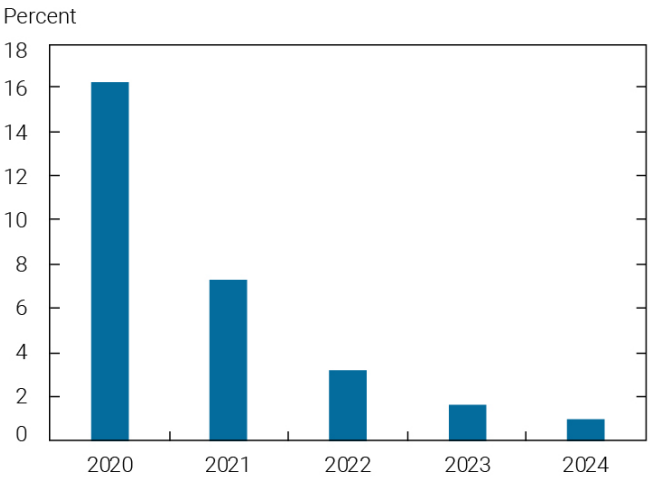
**Sources of Cumulative Change in Reserve Balances**




Source: Federal Reserve Bank of New York.
Notes: Unless otherwise indicated, amounts for each asset and liability reflect the cumulative change in the monthly average of each item's weekly average. Bars above the axis reflect changes that increase reserves, while bars below the axis represent changes that reduce reserves. All else equal, increases (decreases) in SOMA securities holdings, loans and emergency facilities, and other assets increase (decrease) reserves, while increases (decreases) in Federal Reserve notes, Treasury General Account, ON RRP, FIMA reverse repo pool, other deposits, and other liabilities and capital decrease (increase) reserves. Other assets primarily include unamortized net premiums and accrued interest receivable on securities, foreign currency-denominated holdings, repo, liquidity swaps, and the deferred asset. Loans and emergency facilities reflect the monthly average of the sum of the weekly averages of primary credit loans, other loans, and loans from emergency credit facilities.

Chart 19

**Annual Changes in Federal Reserve Notes**




Source: Board of Governors of the Federal Reserve System.
Note: Figures reflect annual growth rates on year-end Wednesday levels.

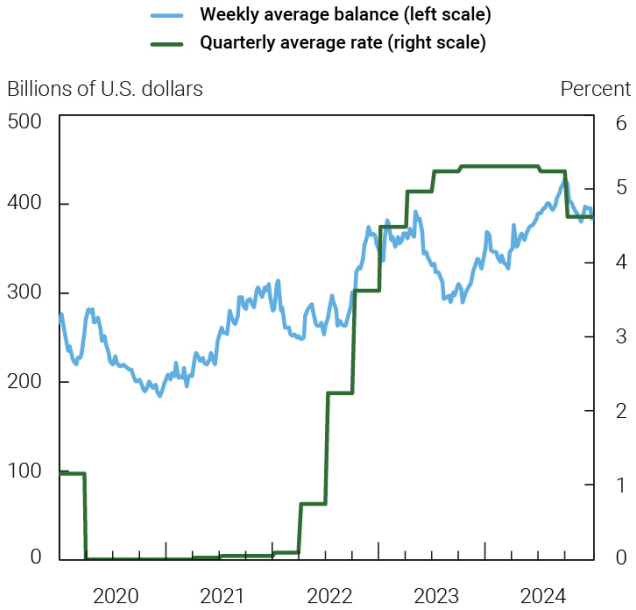
## Federal Reserve Notes

Federal Reserve Notes, commonly referred to as currency in circulation (currency), increased by $25.5 billion in 2024 to a level of $2.32 trillion. This represents a 1 percent annual growth rate, which remains below the 7 percent average annual growth rate between 2010 and 2022 (Chart 19). For U.S. households and firms, currency is an asset that can be readily exchanged for goods and services and serves as a store of value. Demand for U.S. currency also originates from abroad. In the past, the rate of growth of currency outstanding generally reflected the pace of expansion of domestic economic activity in nominal terms, although acute financial or political uncertainty can also drive growth in currency.

The continued slowdown in currency growth was driven by several factors, including reduced uncertainty about economic conditions, a reduction in excess savings, and increased use of alternative forms of payment. Growth in foreign demand for U.S. currency slowed in 2024 amid economic reforms abroad that reduced demand for U.S. currency, and elevated interest rates, which have generally resulted in lower incentives to hold currency compared to interest-bearing investments.

Chart 20

**FIMA Reverse Repo Pool**




Sources: Board of Governors of the Federal Reserve System; Federal Reserve Bank of New York.

## Reverse Repurchase Agreements

### OVERNIGHT REVERSE REPOS

ON RRP balances decreased significantly from an average level of $807.7 billion in December 2023 to an average of $171.4 billion in December 2024. The ON RRP facility continued to provide an effective floor on overnight rates, serving as an alternative investment option for a broad base of money market investors; its decreased usage during 2024 reflected increasingly attractive short-term investment alternatives. (For more information, see the "Open Market Operations" section of this report.)

### FIMA REVERSE REPO POOL

The New York Fed has long offered its foreign official and international account holders an overnight repo investment service through the FIMA reverse repo pool, also known as the foreign repo pool. At the end of each business day, account holders' cash balances are swept into an overnight reverse repo secured by the SOMA domestic securities holdings. Upon maturity on the following business day, the securities are repurchased by the SOMA at a price that includes a return that is calculated at a rate generally equivalent to the ON RRP rate, although the New York Fed may vary the rate of return at any time without prior notice.

This service addresses a strong preference by many central banks to hold significant dollar liquidity buffers at the Federal Reserve for policy purposes, and supports operational liquidity needs to clear and settle securities in these accounts. Like other reserve currency central banks, the Federal Reserve offers this service as part of a suite of banking and custody services to central banks, governments, and international official institutions.

The FIMA reverse repo pool's quarterly average interest rate decreased from 5.30 percent to 4.55 percent during 2024, in line with decreases in the target range for the federal funds rate. FIMA reverse repo pool balances averaged nearly $380 billion in 2024, above the average of nearly $340 billion in 2023, with weekly average balances reaching a record high of nearly $430 billion in late September (Chart 20). The increase was largely driven by account holders who had accumulated foreign exchange reserves and preferred to maintain dollar liquidity. Following the September peak and the downward adjustment of the pool's interest rate, pool balances fell amid decreased liquidity needs among some account holders and shifts into other holdings. On net, the FIMA reverse repo pool increased by about $43 billion in 2024.

## Deposits

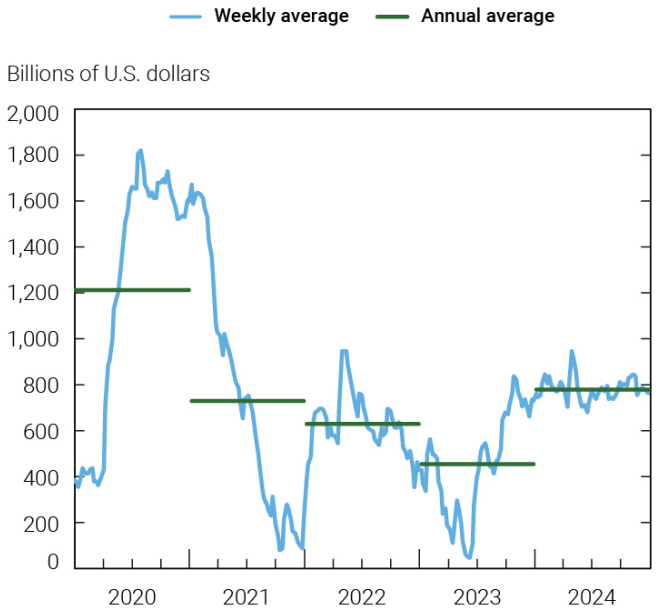
### TREASURY GENERAL ACCOUNT

By statute, the Federal Reserve acts as the fiscal agent for the federal government, and the U.S. Treasury maintains a cash balance at the Federal Reserve known as the Treasury General Account (TGA). The U.S. Treasury uses the TGA to deposit individual and corporate taxes paid to the U.S. government, disburse payments, pay interest on federal debt, and settle Treasury security issuance, maturities, and buybacks. TGA balances typically exhibit significant variation around Treasury auction settlement dates, periods of significant expenditures, such as those related to Social Security or military spending, and tax payment deadlines.

To ensure that it can meet its obligations even if its ability to borrow new funds is temporarily disrupted, the U.S. Treasury generally strives to maintain a TGA balance that is large enough to cover one week of net outgoing payments, including the gross volume of maturing marketable debt, subject to a minimum of roughly

Chart 21

**Treasury General Account Balances**




Source: Board of Governors of the Federal Reserve System.
Note: Weekly figures are the average of daily figures; annual figures are the average of the weekly figures for the year.

$150 billion. The U.S. Treasury often holds a TGA balance above the level necessary to meet its projected cash needs as part of its regular and predictable approach to issuing debt.[17]

The TGA declined by $46.7 billion from year-end 2023 to a level of $721.9 billion (Chart 21). During the year, the TGA generally fluctuated between about $650 billion and $950 billion, briefly peaking at around $960 billion during April tax season.

### Foreign Official and Other Deposits

The Federal Reserve offers deposit services to international and multilateral organizations, foreign official institutions, government-sponsored enterprises, and designated financial market utilities (DFMUs). GSEs are financial intermediaries chartered by the federal government that primarily facilitate the flow of credit to the housing and agriculture sectors. DFMUs provide the infrastructure for transferring, clearing, and settling payments, securities, and other financial transactions.[18] Unlike deposits held by FIMA customers and GSEs at the New York Fed, deposits held by DFMUs may be remunerated at the rate paid on reserve balances maintained by depository institutions or another rate determined by the Board, not to exceed the general level of short-term interest rates.

In 2024, average aggregate balances of foreign official and other deposits declined by about $27.0 billion to reach roughly $168.8 billion but remained above pre-COVID levels. The aggregate decline was driven primarily by a decrease in DFMU balances. GSE account balances continued to vary within each month, with increases in balances occurring when certain GSEs positioned funds in their Federal Reserve accounts ahead of monthly principal and interest payment dates for MBS. As mortgage rates remained relatively high throughout the year and agency MBS prepayments were at low levels, these peaks in GSE deposits also remained at low levels. Foreign official deposits were stable over the year.

## FINANCIAL RESULTS

SOMA net income was negative $74.7 billion in 2024, as interest expenses and assumed funding costs exceeded interest income during the year. The Federal Reserve's deferred asset reached $216.0 billion by end-2024, representing the amount of cumulative net income that the Federal Reserve must earn before resuming remittances to the U.S. Treasury.

### SOMA Net Income

The major contributors to SOMA net income are the interest income on SOMA assets and interest expenses on SOMA liabilities (primarily the ON RRP and FIMA reverse repo facilities), as well as interest expenses on non-SOMA liabilities (reserves and certain other deposits), which are assumed to also fund SOMA assets.

In 2024, SOMA net income was negative $74.7 billion, compared to negative $117.2 billion in 2023, with the change largely driven by reduced interest expenses on the ON RRP (Table 3 and Chart 22). Total interest income from the SOMA portfolio decreased modestly in 2024, as a decrease in interest income stemming from portfolio runoff was only partially offset by higher interest income earned by the reinvestment of proceeds from maturing securities. Interest expense on SOMA liabilities was sharply lower in 2024 compared to 2023, primarily owing to the significant decrease in usage of the ON RRP facility. The

Table 3

**SOMA Net Income**

Billions of U.S Dollars

| | 2024 | 2023 |
|---|---|---|
| Interest income | | |
| Treasury securities | 100.5 | 106.5 |
| Agency MBS | 52.7 | 57.0 |
| Agency debt | 0.1 | 0.1 |
| Repurchase agreements | | |
| FIMA repurchase agreements | 0.0 | 0.2 |
| Standing repurchase agreements | 0.0 | 0.0 |
| Other | 0.3 | 0.2 |
| | 153.6 | 164.1 |
| Interest expense | | |
| Reverse repurchase agreements | | |
| Overnight reverse repurchase agreements | (20.7) | (87.3) |
| FIMA reverse repurchase agreements | (19.6) | (17.0) |
| Other | 0.0 | 0.0 |
| | (40.3) | (104.3) |
| Non-interest income (loss) | | |
| Foreign currency translation gains (losses) | (1.5) | (0.1) |
| Other | (0.1) | (0.1) |
| | (1.6) | (0.2) |
| SOMA income | 111.8 | 59.6 |
| Assumed funding cost | (186.5) | (176.8) |
| SOMA net income | (74.7) | (117.2) |

Sources: Federal Reserve Bank of New York; Board of Governors of the Federal Reserve System.
Notes: Assumed funding cost represents the interest expense on reserves and certain other deposits assumed to be associated with the funding of the SOMA portfolio. These non-SOMA liabilities also fund non-SOMA assets such as loans extended by Federal Reserve Banks. A substantial portion of non-SOMA liabilities are not remunerated, including Federal Reserve notes and the Treasury General Account.

interest expenses on the other interest-bearing liabilities that are assumed to also fund SOMA assets increased over the year, driven by the higher average IORB rates in 2024.[19]

## Federal Reserve Remittances

The Federal Reserve remits its earnings to the U.S. Treasury Department on a weekly basis, after providing for the cost of operations, payment of dividends, and any amount necessary to maintain aggregate Reserve Bank surplus up to the statutory limit. The Federal Reserve continued to suspend nearly all remittances to the U.S. Treasury during 2024. The negative net income realized in 2024 increased the deferred asset by around $83 billion, to $216.0 billion, which represents the amount of future net earnings to be realized before remittances to the Treasury resume. Once Federal Reserve net income turns positive, this deferred asset will be reduced and eventually extinguished. The deferred asset has no effect on the ability of the Federal Reserve to implement monetary policy or meet any of its financial obligations.

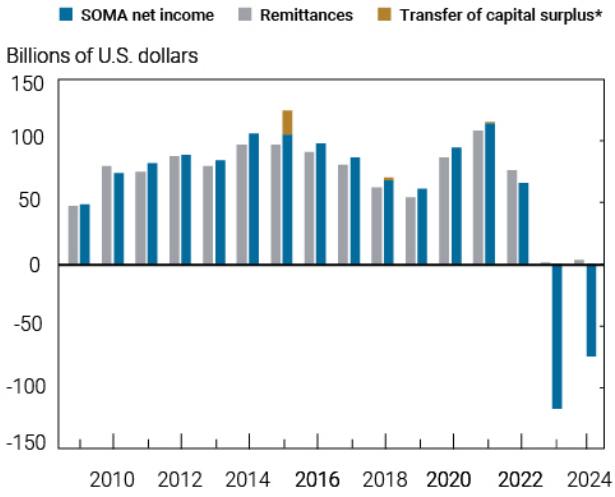
## SOMA Unrealized Gains and Losses

The market value of the SOMA securities portfolio fluctuates with changes in the prevailing level of interest rates. Unrealized gains and losses are calculated as the difference between the market value of the portfolio and its book value, which reflects amortized cost. For securities that are held to maturity, unrealized gains or losses fall to zero over time as their price reverts to par at maturity. The unrealized gain or loss position of the SOMA portfolio has no effect on net income or Federal Reserve remittances to the Treasury unless assets are sold and gains or losses are realized. Unrealized gains and losses have no effect on the conduct of monetary policy.

The SOMA domestic portfolio's unrealized loss position was $1.06 trillion at end-2024, modestly higher than it was at year-end 2023 (Table 4). Unrealized losses increased in line with higher market interest rates across the yield curve compared to 2023, partially offset by the lower holdings of SOMA securities due to portfolio runoff. Unrealized loss positions in the Treasury and agency MBS portfolios during 2024 were $653.2 billion and $410.6 billion, respectively. The foreign portfolio held an unrealized loss position of $61.2 million, compared to an unrealized loss of $198.2 million at year-end 2023.

Chart 22

**SOMA Net Income and Federal Reserve Remittances to the U.S. Treasury**




Sources: Federal Reserve Bank of New York; Board of Governors of the Federal Reserve System.
Note: Remittances for 2023 and 2024 reflect the sum of all positive weekly remittances during the year.
* Represents the transfer of capital from Federal Reserve Banks to comply with the statutory limit on the aggregate Federal Reserve surplus. In 2015, a one-time transfer was made to reduce capital surplus to $10 billion as required by the FAST Act. One-time transfers were also made in 2018, when the limit was reduced to $7.5 billion from $10 billion, and in 2021, when the limit was reduced to $6.825 billion by the National Defense Authorization Act.

Table 4

**SOMA Domestic Portfolio Unrealized Gains and Losses**
Billions of U.S. Dollars

| Date | Treasury Securities | Agency MBS | Agency Debt | Total |
|---|---|---|---|---|
| **2020** | 298.7 | 54.4 | 0.9 | 354.0 |
| **2021** | 134.6 | (7.4) | 0.7 | 127.9 |
| **2022** | (672.8) | (407.7) | 0.2 | (1,080.4) |
| **2023** | (585.2) | (363.3) | 0.1 | (948.4) |
| **2024** | (653.2) | (410.6) | 0.1 | (1,063.7) |

Source: Board of Governors of the Federal Reserve System.
Note: Figures are as of year-end.

## PROJECTIONS

The projections presented here show how the Federal Reserve's balance sheet may evolve under the FOMC's Plans for Reducing the Size of the Federal Reserve's Balance Sheet (Plans). The future paths of the SOMA portfolio and reserves will depend on the FOMC's decisions about the balance sheet; these policy implementation decisions, which will be based on prevailing conditions in financial markets and the broader economy, will support a smooth transition to ample reserves and maintenance of reserves at an ample level thereafter. These projections demonstrate a possible path of the portfolio and the balance sheet under one set of assumptions. They are purely illustrative and are intended to give a sense of long-term dynamics, not short-term changes.[20]

As indicated in the Plans, the Committee intends to stop the decline in the size of the balance sheet when reserve balances are somewhat above the level it judges to be consistent with ample reserves. Demand for other Federal Reserve liabilities is assumed to grow over time, implying reserves are likely to decline for a time once balance sheet runoff has ceased. The projections assume the SOMA portfolio will eventually need to grow to maintain reserves at an ample level. The timing of both the end of balance sheet runoff and the beginning of balance sheet growth is unclear due to uncertainty about the level of reserves that is consistent with ample conditions and demand for Federal Reserve liabilities.[21] The level of reserves required to operate in an ample reserves framework will be

influenced by the demand for reserves and may change over time and in different market environments. The projections are constructed using expectations from the Desk's May 2025 Survey of Market Expectations (Desk Survey) for when SOMA portfolio runoff will cease and, subsequently, for when the portfolio will begin to grow through reserve management purchases. In addition, simple illustrative rules are used to proxy the evolution of Federal Reserve liabilities.

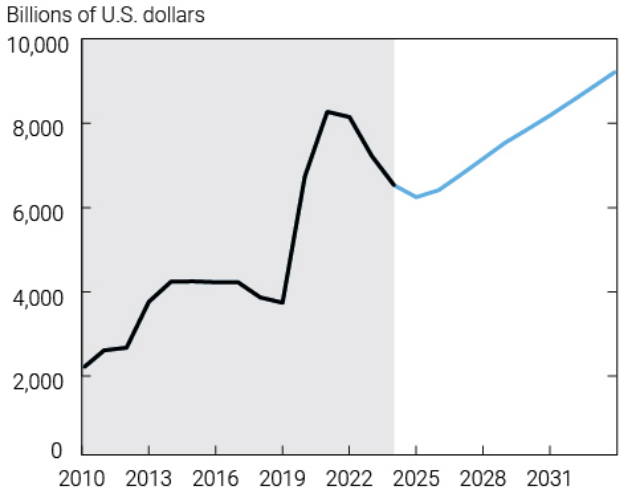
In this projection exercise, the size of the SOMA portfolio continues to decline until January 2026, reaching a level of $6.2 trillion (Chart 23). The size of the portfolio is held steady before increasing in July 2026 to keep pace with growth in demand for Federal Reserve liabilities. In line with the Committee's stated intention to return to a portfolio composed primarily of Treasury securities in the long run, the share of the portfolio held in Treasury securities increases over the projection horizon, as the portfolio grows through reserve management purchases of Treasury securities, and as principal payments from agency securities are reinvested into Treasury securities.

The projections also include illustrative paths for SOMA net income. Total SOMA net income is projected to be negative in 2025 before turning positive in 2026 and increasing over the rest of the forecast horizon. Alternate rate scenarios show that over the next few years, net income is higher (lower) under a parallel shift lower (higher) in interest rates.

The SOMA portfolio's unrealized gain or loss position—that is, the difference between the portfolio's market and book valuations—is projected to remain in an unrealized loss position over the forecast horizon. However, this loss position decreases as market rates for Treasury securities and agency MBS decline over time and as unrealized gains and losses converge to zero as securities near maturity. Alternate rate scenarios show that over the next few years the unrealized loss is lower (higher) under a parallel shift lower (higher) in interest rates. Negative net income and unrealized gains or losses have no effect on the Federal Reserve's conduct of monetary policy or its ability to meet its financial obligations.

Chart 23

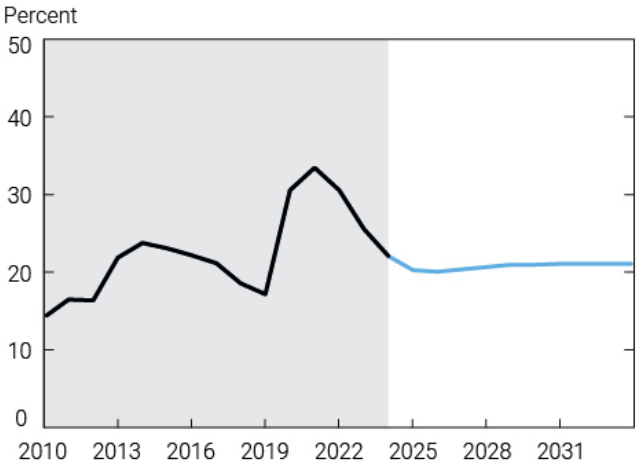
**Projected SOMA Domestic Securities Holdings**




Source: Federal Reserve Bank of New York.
Notes: Figures are as of year-end and are rounded. Figures for 2010-24 are shaded and represent historical balances.
Projection assumptions are primarily based on publicly available information further detailed in Appendix 4 of this report.

Chart 24

**Projected SOMA Domestic Securities Holdings as a Share of NGDP**




Source: Federal Reserve Bank of New York.
Notes: Figures are as of year-end and are rounded. Figures for 2010-24 are shaded and represent historical balances.
Projection assumptions are primarily based on publicly available information further detailed in Appendix 4 of this report.

## Assumptions

This section reviews the assumptions about SOMA portfolio runoff, Federal Reserve liabilities, and interest rates that are used for the projections; a complete list of key assumptions can be found in Appendix 4.

### BALANCE SHEET

#### Assets

The projections assume that the size of the SOMA portfolio evolves in three phases: portfolio reduction, portfolio maintenance, and portfolio growth. During the portfolio reduction phase, monthly principal payments from Treasury coupon securities and agency securities (agency MBS and agency debt securities) are reinvested only to the extent that they exceed monthly redemption caps.[22] All reinvestments are allocated to Treasury securities. In line with its Plans, the Committee began to slow the pace of runoff in June 2024 by lowering the redemption caps for Treasuries, and the projections incorporate the further slowing of runoff that occurred in early 2025. Through March 2025, the redemption caps were set at $25 billion and $35 billion for Treasury securities and agency securities, respectively. The redemption cap on Treasury securities was lowered to $5 billion beginning in April 2025 while the redemption cap on agency securities was left unchanged.

Consistent with the Plans, the decline in the portfolio stops, and the portfolio's size is maintained at a roughly constant level, when reserves are somewhat above the level assumed to be consistent with ample reserves. In this projection exercise, the timing of the transition to the portfolio maintenance phase is assumed to be January 2026, consistent with the median response to the Desk Survey.[23] Although this exercise uses the median response for illustrative purposes, the responses to the Desk Survey were dispersed and the exact timing of the transition is uncertain. During this phase, all principal payments are reinvested into Treasury securities. While the size of the portfolio is held steady, reserve balances continue to decline, reflecting growth in non-reserve liabilities such as currency.

Once reserves reach an ample level, the portfolio enters the growth phase, and reserve management purchases of Treasury securities are conducted in the secondary market at a pace that maintains reserves at an ample level. The transition to the growth phase is assumed to occur in July 2026, also consistent with the median response to the Desk Survey; as with the transition to the portfolio maintenance phase, the actual timing is highly uncertain, and survey responses to this question were dispersed. During this phase, reserves remain at a constant share of nominal GDP (NGDP), with the assumed rate of growth for NGDP drawn from median responses to the Desk Survey. The median expected longer-run growth rates of real GDP and personal consumption expenditures (PCE) price inflation are each 2.0 percent, consistent with a long-run level of NGDP growth of 4.0 percent.

The level of reserves needed to operate in an ample reserves framework will be influenced by the demand for reserves, which reflects actual or expected payment activity, regulations and related factors, and internal liquidity risk management practices of depository institutions, and may change over time and in different market environments. In practice, there is significant uncertainty about the level of reserves that is consistent with ample reserve conditions and when that level will be reached. The Committee will continue to monitor money market conditions to inform the assessment of the level of reserves consistent with an ample reserves regime and adjust its policy implementation tools accordingly.

#### Liabilities and Capital

Demand for most Federal Reserve liabilities is assumed to grow over time. One exception to this assumption is ON RRP facility take-up, which is assumed to decline to a minimal level by the end of 2025. Additionally, the TGA is assumed to rise to $850 billion by the third quarter of 2025, a level in line with the cash balance guidance provided in the Treasury's May 2025 Quarterly Refunding Statement. Thereafter, the TGA is assumed to grow with NGDP.

All other non-reserve liabilities, including currency, and capital are assumed to begin at their average December 2024 levels and grow over the projection horizon in line with growth in NGDP, which is used as a plausible proxy for longer-term growth of these liabilities. Assumptions for Federal Reserve liabilities and capital are illustrative of potential longer-term trends and are not intended to reflect shorter-term changes.

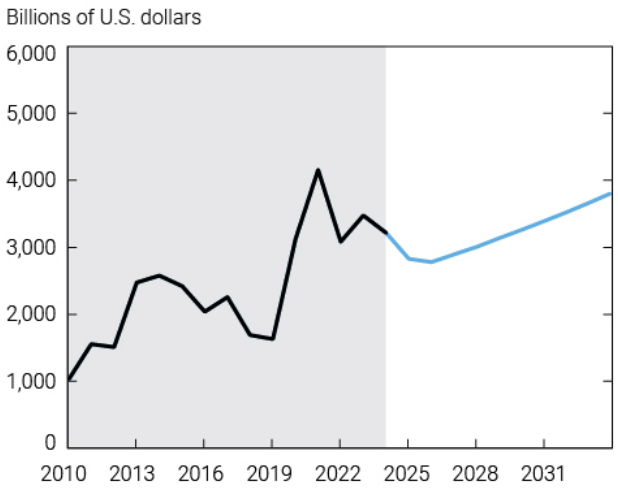
### INTEREST RATES

The baseline paths for the federal funds rate and longer-term interest rates are drawn from responses to the Desk Survey. In the survey, the median expected midpoint of the federal funds target range falls to 3.13 percent in the longer run. The ten-year Treasury yield and thirty-year fixed primary mortgage rate fall to 4.1 percent and 6.3 percent, respectively, in the longer run. The IORB rate is assumed to be set 10 basis points below the top of the target range, and the ON RRP offering rate is assumed to be set at the bottom of the target range, in line with recent settings. These interest rate paths are used to project portfolio net income and market value.

The projection exercise also considers a range of outcomes for SOMA net income and portfolio market values assuming higher and lower interest rates; these alternate scenarios assume that interest rates are 100 basis points higher or lower than the values obtained from the Desk Survey. The data files for this report also include scenarios in which interest rates are 200 basis points higher or lower than the values obtained from the Desk Survey.

Chart 25

**Projected Reserve Balances**




Source: Federal Reserve Bank of New York.
Notes: Figures are as of year-end and are rounded. Figures for 2010-24 are shaded and represent historical year-end balances calculated as averages of December daily reserve balances.
Projection assumptions are primarily based on publicly available information further detailed in Appendix 4 of this report.

## Projection Results

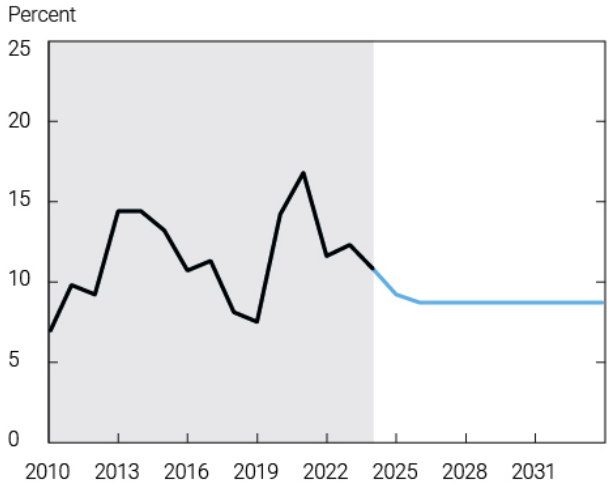
### PATH OF PORTFOLIO HOLDINGS AND RESERVE BALANCES

Starting with the SOMA domestic securities portfolio as of December 2024 and incorporating the assumptions described above results in a path of the SOMA through 2034 (Chart 23). The portfolio declines through the end of 2025 as maturing principal payments are allowed to run off, subject to redemption caps.[24] Reserves decline through the portfolio reduction phase, driven by the effects of SOMA runoff and non-reserve liability growth, partially offset by the decline in ON RRP take-up and growth in the deferred asset.[25]

The portfolio maintenance phase begins in January 2026, in line with the Desk Survey, whereby the SOMA portfolio is maintained at around $6.2 trillion, or 20 percent of NGDP, and Treasury and agency MBS principal payments are reinvested into Treasury securities (Chart 24). During the portfolio maintenance phase, reserves continue to decline, driven by non-reserve liability growth and a reduction in the deferred asset (Chart 25). Reserves decline to a level just above $2.7 trillion in mid-2026 at the end of the portfolio maintenance phase.

Chart 26

**Projected Reserve Balances as a Share of NGDP**




Source: Federal Reserve Bank of New York.
Notes: Figures are as of year-end and are rounded. Figures for 2010-24 are shaded and represent historical year-end balances calculated as averages of December daily reserve balances as a share of year-end NGDP.
Projection assumptions are primarily based on publicly available information further detailed in Appendix 4 of this report.

The portfolio growth phase then begins in July 2026 and reserve management purchases of Treasury securities are conducted in the secondary market to grow reserves in line with NGDP to maintain a level consistent with ample reserves conditions through the end of the forecast horizon (Chart 26).

### PORTFOLIO COMPOSITION

Over the projection horizon, the share of the portfolio held in agency MBS declines from around 34 percent of the SOMA portfolio to around 8 percent at the end of the forecast horizon (Chart 27). This result stems from the assumptions regarding portfolio reinvestments and reflects the Committee's stated intention to return to a portfolio composed primarily of Treasury securities.

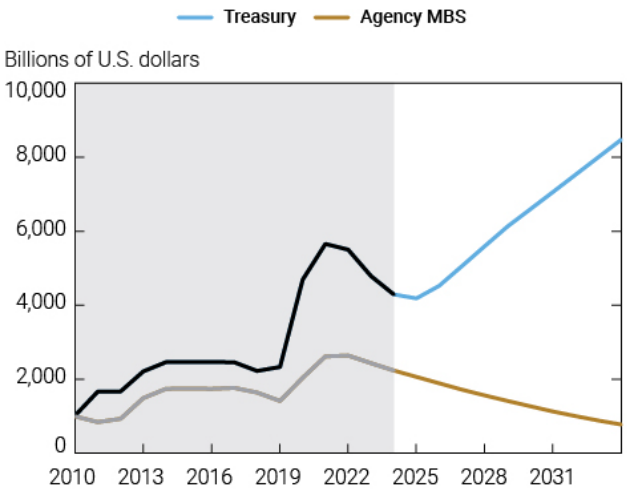
### SOMA NET INCOME AND REMITTANCES

As discussed earlier in this report, the Federal Reserve remits excess earnings to the U.S. Treasury after providing for the cost of operations, the payment of dividends, and any amount necessary to maintain an aggregate Reserve Bank capital surplus up to the statutory limit. SOMA net income—a measure that reflects interest income on SOMA assets less interest expenses on SOMA liabilities (ON RRP and FIMA reverse repo pool) and interest expenses on certain non-SOMA interest-bearing liabilities (reserves and certain other deposits)—is the primary driver of Federal Reserve remittances.[26]

In this exercise, SOMA net income remains negative through most of 2025 because the interest expenses on reserve balances, certain other deposits, and RRPs are higher than income earned on the SOMA portfolio (Chart 28). SOMA net income becomes positive in late 2025 primarily due to decreases in interest expense resulting from lower short-term interest rates and increases in interest income from higher-yielding securities added to the portfolio through reinvestments and, eventually, reserve management purchases. During the time that SOMA net income remains negative, remittances to the U.S. Treasury will continue to be suspended and the deferred asset on the Federal Reserve's balance sheet will continue to grow. As SOMA net income becomes positive, the deferred asset will gradually decline, and remittances to the U.S. Treasury will resume once the deferred asset is extinguished.

Chart 27

**Projected SOMA Domestic Securities Holdings by Asset Class**




Source: Federal Reserve Bank of New York.
Notes: Figures are as of year-end and are rounded. Figures for 2010-24 are shaded and represent historical balances.
Projection assumptions are primarily based on publicly available information further detailed in Appendix 4 of this report.

To illustrate the sensitivity of SOMA net income to alternate interest rate paths, Chart 28 also shows the outcomes for net income assuming short- and long-term interest rates that are 100 basis points higher and lower than the baseline projection. When interest rates are 100 basis points higher than indicated in the Desk Survey, net income is negative for roughly three quarters longer than in the baseline scenario due to higher expenses from interest paid on reserves. Further out in the projection horizon, net income is higher than under the baseline scenario as the effects of higher funding costs are more than offset by higher coupon income as securities are purchased at higher yields. Under a lower interest rates scenario, net income becomes positive roughly two quarters earlier than in the baseline due to lower interest expenses. Later in the projection horizon, net income is lower than in the baseline rate scenario due to the effect of lower coupon income.[27]

## SOMA Unrealized Gains and Losses

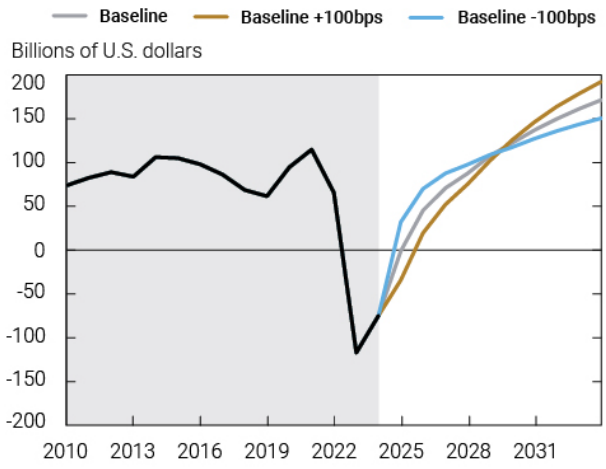
The market value of securities holdings—and, accordingly, the portfolio's unrealized gains or losses—fluctuates with changes in the prevailing level of market rates for Treasury and agency securities. As of December 2024, the unrealized loss—that is, the difference between the market value of the portfolio and its book value, which reflects amortized cost—on the portfolio was $1.06 trillion, or 16 percent of the par value of the SOMA portfolio. Assuming the baseline path of market interest rates, the unrealized loss on the portfolio is projected to shrink over the forecast horizon to about $280 billion, or 3 percent of the par value of the SOMA portfolio (Chart 29). At first, the decline in the path of long-term interest rates causes the market value of securities to increase. Then, over time, the market value of the portfolio trends toward par as security holdings approach maturity.

Similar to the sensitivity of net income, when interest rates are assumed to be 100 basis points higher than indicated in the Desk Survey, the unrealized loss on the portfolio becomes more negative. If interest rates are lower, the unrealized loss on the portfolio shrinks more quickly.[28]

As noted earlier, the Federal Reserve's earnings and unrealized gains or losses have no impact on its ability to fulfill its financial obligations or to implement monetary policy in pursuit of statutory goals.

Chart 28

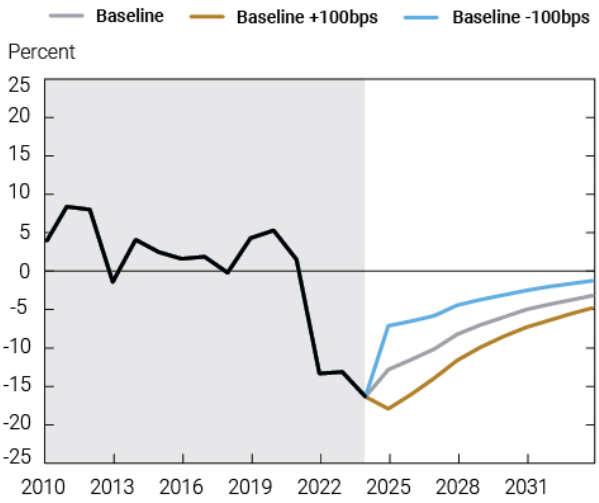
**Projected SOMA Net Income**




Source: Federal Reserve Bank of New York.
Notes: Figures are annual totals and are rounded. Figures for 2010-24 are shaded and represent historical balances.
Projection assumptions are primarily based on publicly available information further detailed in Appendix 4 of this report.

Chart 29

**Projected SOMA Unrealized Gains and Losses as a Share of the SOMA Portfolio**




Source: Federal Reserve Bank of New York.
Notes: Figures are annual totals and are rounded. Figures for 2010-24 are shaded and represent historical balances.
Projection assumptions are primarily based on publicly available information further detailed in Appendix 4 of this report.

# COUNTERPARTIES

The New York Fed relies on a robust network of trading counterparties to supply the necessary operational capacity to execute domestic and foreign open market operations. This network of counterparties is diverse and geographically dispersed to ensure that the New York Fed can continue to conduct open market operations in a range of scenarios.[29]

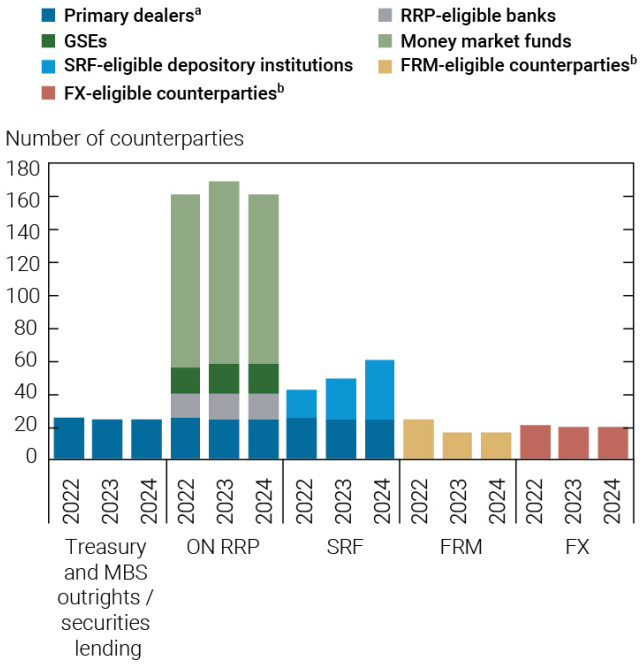
The New York Fed transacts primarily with regulated banks and broker-dealers, considering other types of counterparties only when appropriate to execute its responsibilities, and seeks to transact with counterparties that do not pose an undue level of credit risk exposure to the New York Fed or to the parties on whose behalf the New York Fed executes market operations (Chart 30).[30] Among other requirements, counterparties are expected to operate in accordance with the best practices for fixed income and foreign exchange markets published by New York Fed–sponsored and related groups.[31]

## PRIMARY DEALERS

Primary dealers are trading counterparties of the New York Fed in its implementation of monetary policy and are expected to participate consistently and competitively in open market operations. They are also expected to make markets for the New York Fed on behalf of its official account holders as needed, and to bid on a pro rata basis in all Treasury auctions at reasonably competitive prices.[32] The New York Fed also expects primary dealers to provide ongoing insight into market developments in the daily market monitoring activities that the Desk conducts to support the formulation and implementation of monetary policy. As of December 31, 2024, there were twenty-four primary dealers.

Chart 30

**Counterparty Types by Operation**




Source: Federal Reserve Bank of New York.
[a] A primary dealer is generally either (1) a broker-dealer or (2) a state or federally chartered bank or savings association, or a state or federally licensed branch or agency of a foreign bank. Except as otherwise noted, entities that qualify under both the "primary dealers" category and other categories are listed as primary dealers.
[b] May include primary dealers or affiliates thereof, but only if they individually qualify under applicable requirements. The counterparty names for foreign reserves management (FRM) and foreign exchange (FX) are consolidated at the parent entity level. The Desk may trade with domestic or foreign branches, subsidiaries, or other affiliates of these entities.

## REVERSE REPURCHASE AGREEMENT COUNTERPARTIES

To enhance its ability to support the monetary policy objectives of the FOMC, the New York Fed has arrangements with an expanded set of counterparties with whom the Desk can conduct reverse repo transactions. These RRP counterparties—which include money market funds, GSEs, and banks—augment the existing set of primary dealer counterparties with whom the New York Fed can conduct reverse repos. As of December 31, 2024, there were 137 expanded RRP counterparties, comprising 103 money market funds from thirty-one investment management firms, eighteen government-sponsored enterprises, and sixteen banks. The number of ON RRP counterparties decreased slightly from 2023, due largely to closures and mergers of prime funds that were Desk counterparties, stemming from the Securities and Exchange Commission's MMF reforms that took effect during 2024.[33]

## STANDING REPO FACILITY COUNTERPARTIES

The New York Fed's Trading Desk conducts daily overnight repo operations under the SRF to support the effective implementation of monetary policy and smooth market functioning. Counterparties for these transactions in 2024 included the twenty-four primary dealer counterparties, as well as thirty-seven depository institutions as of December 31, 2024, up from twenty-five depository institutions at year-end 2023.

## FOREIGN EXCHANGE COUNTERPARTIES

Foreign exchange counterparties are trading counterparties of the New York Fed in its foreign exchange operations conducted on behalf of the Federal Reserve and the U.S. Treasury. These counterparties are also expected to make reasonable markets for Desk transactions that relate to the currency needs of the New York Fed's official account holders and agencies of the U.S. government. In addition, the New York Fed relies on its foreign exchange counterparties for ongoing insight into global financial market developments as it conducts daily market monitoring activities to support the formulation and implementation of policy by U.S. monetary authorities. Foreign exchange counterparties are expected to provide competitive two-way pricing, as needed, to support the Desk's foreign exchange operations. As of December 31, 2024, there were twenty foreign exchange counterparties.

## FOREIGN RESERVES MANAGEMENT COUNTERPARTIES

The New York Fed transacts with foreign reserves management (FRM) counterparties to invest the foreign currency reserves of the Federal Reserve and the U.S. Treasury. These counterparties are expected to participate consistently and competitively in the Desk's periodic investment operations. The Desk also relies on its FRM counterparties for ongoing insight into global financial market developments in its daily market monitoring activities. As of December 31, 2024, there were sixteen parent counterparties. Trades may occur with domestic or foreign branches, subsidiaries, or other affiliates of these entities.

# OPERATIONAL FLEXIBILITY AND RESILIENCY

Over the course of 2024, the New York Fed continued to maintain operational flexibility and resiliency through a robust and geographically dispersed network of counterparties and operational capabilities. New York Fed staff maintained the ability to operate in a hybrid posture, which further supported readiness to conduct operations in a range of scenarios to implement monetary policy in accordance with FOMC directives. In addition, the Desk continued to undertake operational readiness exercises and initiatives to enhance cyber resiliency.

## OPERATIONAL READINESS

The Desk continued its practice of conducting small-value transaction exercises for certain domestic and foreign SOMA operations to maintain operational readiness.[34] During these exercises, transactions were conducted end-to-end, from trade execution through settlement, which supported the Desk's operational capability to execute a range of operation types that may be required to expeditiously implement future policy directives. The conduct of any small-value exercises should not be interpreted as a signal about the possible future timing or direction of changes in policy.

The Desk routinely conducts small-value exercises to test back-up tools to support contingency preparedness efforts. These exercises test the Desk's ability to execute certain critical operations under a scenario in which primary tools, such as the FedTrade trading platform, become unavailable. In 2024, exercises with back-up tools were conducted for overnight reverse repo, overnight repo, and securities lending operations

In addition, the Desk plans to use small-value exercises to facilitate a smooth transition to FedTrade Plus, the new trading platform for conducting open market operations.[35] FedTrade Plus will be implemented across different types of open market operations in phases, with small-value exercises preceding each phase. FedTrade Plus will improve resiliency and security through its use of modern cloud technologies and increased cybersecurity measures; allow counterparties to realize improved interactions across their own systems and processes; and simplify the overall trade submission process.

The aggregate par value of all transactions conducted for the purpose of testing operational readiness remained within their authorized limits during 2024. These tests covered domestic and foreign outright operations, as well as repo and reverse repo transactions. Small-value exercises for domestic operations were announced in advance and the results were posted on the New York Fed's website (Table 5). Results of small-value central bank liquidity swap transactions were also posted on the New York Fed's website (Table 6).

## OPERATIONAL AND CYBER RESILIENCY

Cyber-attacks continue to grow in scale and sophistication across the globe, resulting in financial, operational, and reputational impacts across all industries and governments worldwide. To ensure that the Federal Reserve can support a well-functioning, stable, and resilient financial system, the Federal Reserve continues to invest in technologies and strategic private and public partnerships to gain a long-term defensive advantage against evolving cyber threat actors. These investments make it possible for the Bank to

Table 5

**Small-Value Exercises in 2024: Domestic Operations**

| Operation Type | Operation Amount (Millions of U.S. Dollars) |
|---|---|
| Treasury outright purchases and sales | 923 |
| Agency MBS outright purchases and sales | 880 |
| Agency MBS coupon swaps | 30 |
| Agency MBS dollar rolls | 30 |
| Overnight reverse repurchase agreement transactions with back-up tool | 116 |
| Overnight reverse repurchase agreement transactions with agency MBS collateral | 43 |
| Term repurchase agreement transactions | 57 |
| SRF transactions with back-up tool | 94 |
| Treasury securities lending with back-up tool | 109 |

Source: Federal Reserve Bank of New York.
Notes: Figures may be rounded. Further details for each small-value exercise are available on the Federal Reserve Bank of New York's website.

Table 6

**Small-Value Exercises in 2024: Foreign Operations**

| Operation Type | Operation Amount |
|---|---|
| Foreign reserves management transactions | |
| Euro portfolio | € 22,200,000 |
| Yen portfolio | ¥1,900,000,000 |
| Foreign currency liquidity swaps with standing swap line central banks | |
| Bank of England | £50,000 |
| Bank of Japan | ¥50,000 |
| U.S. dollar liquidity swaps | $200,000 |

Source: Federal Reserve Bank of New York.
Notes: Figures may be rounded. Further details for each small-value exercise are available on the Federal Reserve Bank of New York's website.

continue to become more resilient to cyber threats and rapidly adapt to the changing cyber threat landscape.

During 2024, the Bank focused on fortifying its cyber resilience with the gradual adoption of modern technologies such as the cloud, improved monitoring capabilities, and reduction of potential exposures to illicit cyber activity. Annual enhancements to the Bank's physical and information security protection also supported cyber resilience. The Federal Reserve continued to collaborate with a range of other central banks, government agencies, and private sector institutions to monitor and share best practices across its resiliency efforts. The Federal Reserve also continued to test response and recovery preparedness capabilities to limit the business impact and duration of any potential cyber attack and resume business operations.

## GEOGRAPHIC RESILIENCY

In the event of wide-scale disruptions in large metropolitan areas (in particular, the New York region, where many market participants are located), the Federal Reserve must continue to conduct open market operations and settlement activities. In 2024, the Desk continued to maintain a robust, geographically dispersed network of counterparties and Desk operations.

To sustain the resiliency of the Desk's operations, the New York Fed has continued to operate alternative sites for trading and settlement of open market operations in other Reserve Bank locations across the Federal Reserve System and to maintain the ability to operate in a fully remote or hybrid posture. These arrangements ensure that the Desk has the resources needed to carry out critical operational and analytical activities should a contingency scenario affect the greater New York area. Similarly, all primary dealers have established and regularly tested geographically dispersed primary and secondary locations to ensure that robust end-to-end participation in open market operations would still be conducted amid any wide-scale disruption.

# APPENDIX 1:

## Terms for Desk Operations

The following tables summarize the key terms for Desk operations as they were implemented in 2024. For more information on each open market operation, including frequently asked questions (FAQs), visit the Markets & Policy Implementation page of the New York Fed's website, at www.newyorkfed.org/markets.

### Overnight Reverse Repurchase Facility

For more information, visit the FAQs at www.newyorkfed.org/markets/rrp_faq.

| | |
|---|---|
| **Term** | Overnight |
| **Eligible securities** | U.S. Treasury securities |
| **Counterparties** | Primary dealers, eligible 2a-7 money market funds, government-sponsored enterprises, and banks |
| **Aggregate operation limit** | These operations were limited by the value of Treasury securities held outright in the SOMA that was available for such operations. |
| **Frequency** | Daily |
| **Per counterparty limit** | One proposition per counterparty in an amount not to exceed $160 billion |
| **Maximum offer rate** | January 1 to September 18: 5.30 percent<br>September 19 to November 7: 4.80 percent<br>November 8 to December 18: 4.55 percent<br>December 19 to December 31: 4.25 percent |
| **Awards** | The ON RRP facility was conducted as a fixed-price, single-price auction. When the total amount of propositions received was less than or equal to the amount of available securities, all awards were made at the specified offer rate to all counterparties that submitted propositions. In the event that the value of propositions received exceeded the amount of available securities, awards would have been made at the rate at which this size limit was achieved (the stop-out rate), with all propositions below this rate awarded in full and all propositions equal to this rate awarded on a pro rata basis. |
| **Execution platform** | FedTrade, the Desk's proprietary trading platform |

### Standing Repo Facility

For more information, visit the FAQs at www.newyorkfed.org/markets/repo-agreement-ops-faq.

| | |
|---|---|
| **Term** | Overnight |
| **Eligible securities** | U.S. Treasury securities, agency debt securities, and agency MBS |
| **Counterparties** | Primary dealers and eligible depository institutions |
| **Aggregate operation limit** | $500 billion |
| **Frequency** | Daily |
| **Per counterparty limit** | Two propositions of up to $20 billion per eligible security type at rates no lower than the minimum bid rates |
| **Minimum bid rate** | January 1 to September 18: 5.50 percent<br>September 19 to November 7: 5.00 percent<br>November 8 to December 18: 4.75 percent<br>December 19 to December 31: 4.50 percent |
| **Awards** | SRF auctions were conducted in a multiple-price format. If the total amount bid in an individual operation was less than or equal to the aggregate operation limit, all propositions were accepted at their submitted rates. If the aggregate amount bid exceeded the aggregate operation limit, propositions were accepted at their submitted rates, starting with the highest-rate bid relative to the benchmark rate set internally for each security type and working down until the aggregate operation limit was reached. Any remaining individual propositions were either partially awarded or not awarded based on their proximity to those benchmark rates for each security type. |
| **Execution platform** | FedTrade, the Desk's proprietary trading platform |

### Central Bank Liquidity Swaps

For more information, visit the FAQs at www.federalreserve.gov/newsevents/pressreleases/swap-lines-faqs.htm.

| | |
|---|---|
| **Maturity** | Up to 88 days |
| **Counterparties** | Foreign central banks with standing swap line arrangements |
| **Frequency** | The central bank liquidity swap counterparties hold U.S. dollar liquidity-providing operations according to a schedule pre-approved by the Chair of the FOMC. One-week maturity operations were offered weekly throughout 2024 by four of the five standing swap central banks. |
| **Per counterparty limit** | None specified |
| **Price** | For price details, see operation results at www.newyorkfed.org/markets/desk-operations/central-bank-liquidity-swap-operations. |

### Reinvestments of Treasury Securities

For more information, visit the FAQs at https://www.newyorkfed.org/markets/treasury-rollover-faq.

| | |
|---|---|
| **Eligible securities** | All securities issued at auction by the U.S. Treasury |
| **Counterparties** | U.S. Treasury |
| **Operation size and frequency** | The value of all maturing Treasury securities in excess of any applicable redemption cap amount as directed by the Committee were rolled over at each auction into newly issued securities. Reinvestments were allocated proportionally across new issues by the announced offering amounts. |
| **Holdings limits** | SOMA holdings were limited to a maximum of 70 percent of the total outstanding amount of any individual Treasury security. |
| **Bid submission** | The Desk places noncompetitive bids for the SOMA portfolio at Treasury auctions. These bids were treated as add-ons to announced auction sizes. |
| **Awards** | Noncompetitive bidders receive the stop-out rate, yield, or discount margin determined by the competitive auction process. |
| **Execution platform** | TAAPS, the auction platform for issuance of Treasury securities |

### Securities Lending of Treasury Securities

For more information, visit the FAQs at https://www.newyorkfed.org/markets/sec_faq.

| | |
|---|---|
| **Term** | Overnight |
| **Eligible securities** | U.S. Treasury and agency securities (for securities loaned and collateral received) |
| **Counterparties** | Primary dealers |
| **Aggregate operation limit** | The value of Treasury and agency debt securities held outright in the SOMA that was available for such operations |
| **Frequency** | Daily |
| **Aggregate lending limit** | Ninety percent of each Treasury and agency debt security owned by the SOMA with a maturity of fourteen or more days was available for lending each day (the “theoretical amount” available to borrow). |
| **Per counterparty limit** | A maximum of 25 percent of the theoretical amount was available to borrow per issue and $5 billion total par in outstanding securities loans at any one time. |
| **Per issue bid limit** | Up to two bids per issue |
| **Fee** | Primary dealers bid a fee to borrow the security; the fee is economically equivalent to a spread between the overnight general collateral repo rate and the overnight specials rate for the borrowed security. The minimum fee was 5 basis points. |
| **Awards** | Held as a competitive multiple-price auction for each security at noon each business day. |
| **Execution platform** | FedTrade, the Desk’s proprietary trading platform |

### Foreign Reserves Management

For more information, see www.newyorkfed.org/markets/international-market-operations/foreign-reserves-management.

| | |
|---|---|
| **Counterparties** | Foreign Reserves Management counterparties |
| **Eligible assets** | The SOMA’s foreign currency reserves may be invested on an outright basis in German, French, Dutch, and Japanese government securities, as well as in deposits at the Bank for International Settlements and at foreign central banks such as the Deutsche Bundesbank, Banque de France, De Nederlandsche Bank, and Bank of Japan. The Desk may also invest in Dutch, French, and German government securities under agreements for repurchase of such securities. |
| **Execution platform** | Tradeweb and Bloomberg (commercial trading platforms), voice trading |

# APPENDIX 2:

## Governing Documents

### Federal Open Market Committee Authorizations and Continuing Directives for Open Market Operations

On January 30, 2024, the FOMC voted to reaffirm the following governing documents:
https://www.federalreserve.gov/monetarypolicy/files/FOMC_RulesAuthPamphlet_202401.pdf

- Authorization for Domestic Open Market Operations (page 56)
- Continuing Directive for Domestic Open Market Operations (page 58)
- Authorization for Foreign Currency Operations (page 59)
- Continuing Directive for Foreign Currency Operations (page 63)

### Guidelines For the Conduct of System Open Market Operations in Federal-Agency Issues

The Guidelines for the Conduct of System Open Market Operations in Federal-Agency Issues, which were temporarily suspended on January 27, 2009, remained suspended throughout 2024.
www.federalreserve.gov/monetarypolicy/files/FOMC_FederalAgencyIssues.pdf

### Domestic Policy Directives Issued to the Federal Reserve Bank of New York

In 2024, the FOMC authorized and directed the Open Market Desk at the Federal Reserve Bank of New York to execute transactions in the SOMA in accordance with domestic policy directives. The domestic policy directives issued by the FOMC from January 1 to December 31 are available at:
www.federalreserve.gov/monetarypolicy/fomccalendars.htm

# APPENDIX 3:

## Operations Disclosures

The following table summarizes the types of information disclosed by the Desk about various SOMA operations. To access the data listed in the table, visit the Markets Data Dashboard on the New York Fed's website, at www.newyorkfed.org/markets/data-hub.

**Operations Disclosures**

| Operation Type | Operation Conducted Daily or Schedule Released in Advance | Aggregated Results Released Immediately After Operation | Aggregated Data Released with Delay[b] | Transaction-Level Data with Private Counterparties Released with Two-Year Lag |
|---|---|---|---|---|
| **Domestic open market operations[a]** | | | | |
| Standing repurchase agreement transactions | ✓ | ✓ | ✓ | ✓ |
| Overnight reverse repurchase agreement transactions | ✓ | ✓ | ✓ | ✓ |
| Treasury securities lending | ✓ | ✓ | ✓ | ✓ |
| **Foreign currency operations** | | | | |
| Foreign reserves management transactions | | | | ✓ |
| Central bank liquidity swaps | | | ✓[c] | |

Source: Federal Reserve Bank of New York.
[a] Results of SOMA reinvestments at Treasury auctions are released by the U.S. Treasury directly following an auction. For Treasury data, see www.treasurydirect.gov/auctions/announcements-data-results/.
[b] Additional data could include details about types of counterparties, pricing, and higher-frequency transaction data.
[c] Transactions with foreign central bank counterparties are reported weekly by the New York Fed; foreign central banks' operation results are reported directly after completion of their respective auctions.

# APPENDIX 4:

## Summary of Projection Assumptions

The assumptions underlying the scenarios for the SOMA portfolio and the SOMA net income projection exercise are presented below. Sources for these assumptions include market expectations drawn from the Desk's May 2025 Survey of Market Expectations (Desk Survey), the Plans for Reducing the Size of the Federal Reserve's Balance Sheet (Plans) released at the May 2022 FOMC meeting, and simple rules used to proxy the evolution of Federal Reserve liabilities.

### INTEREST RATE ASSUMPTIONS

- The following interest rates are set based on combined responses to the Desk Survey:
  - the effective federal funds rate,
  - the ten-year Treasury yield, and
  - the thirty-year fixed primary mortgage rate.
- The IORB rate is set 10 basis points below the top of the target range.
- The ON RRP offering rate is set at the bottom of the target range.

### BALANCE SHEET ASSUMPTIONS

- Projections start with the SOMA portfolio as of December 31, 2024, and other Federal Reserve balance sheet components as averages of December 2024 levels.

**Asset-related assumptions:**

- The caps for Treasury and agency securities are initially set at $25 billion and $35 billion per month, respectively. Treasury bills are redeemed when Treasury coupon maturities fall below the monthly cap. All reinvestments are allocated to Treasury securities.
- In accordance with the update to the Plans at the March 2025 FOMC meeting, the monthly Treasury redemption cap is lowered to $5 billion beginning in April 2025. All reinvestments are allocated to Treasury securities.
- The size of the SOMA portfolio is held constant beginning in January 2026, in line with the median response to a question about when the SOMA portfolio would cease to decline in the Desk Survey. All reinvestments are allocated to Treasury securities.
- The SOMA portfolio begins to increase in July 2026, consistent with the median response about expectations for the first reserve management purchases in the Desk Survey. All reserve management purchases are conducted in Treasury securities, and principal payments on agency securities are reinvested into Treasury securities.

**Liability-related assumptions:**

- Longer-run levels of capital and non-reserve liabilities other than the TGA and ON RRP facility grow from their average December 2024 levels over the projection horizon in line with nominal GDP (NGDP). The NGDP growth rate is based on responses to the Desk Survey. The median projected longer-run growth rates of real GDP and headline personal consumption expenditures (PCE) price inflation are each 2.0 percent, consistent with a long-run NGDP growth of 4.0 percent, assuming that GDP and PCE inflation evolve similarly and both PCE inflation and the growth rate of the GDP deflator imply an equivalent rate of growth of NGDP.
- Once reserve management purchases begin (see above), the ratio of reserves to NGDP is maintained at the level reached near the end of the portfolio maintenance phase.
- The TGA rises to $850 billion by the end of Q3 2025, in line with the May 2025 Quarterly Refunding Statement, and then grows in line with NGDP to $1.23 trillion by the end of 2034.
- ON RRP facility balances decline to a minimal level by the end of 2025 and then grow in line with nominal GDP.

# APPENDIX 5:

## Reference Web Pages

Policies, communications, and data discussed in this document can be found online at the websites for the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York. Below, we provide the primary web pages where this source material can be found.

### FEDERAL RESERVE BOARD

*FOMC rules and authorizations*
www.federalreserve.gov/monetarypolicy/rules_authorizations.htm

*FOMC statements, implementation notes, minutes, and information about policy normalization*
www.federalreserve.gov/monetarypolicy/policy-normalization.htm

*Background on interest on reserve balances*
www.federalreserve.gov/monetarypolicy/reqresbalances.htm

*Detailed transaction information about discount window lending to depository institutions*
www.federalreserve.gov/regreform/discount-window.htm

*Federal Reserve System financial statements*
https://www.federalreserve.gov/aboutthefed/fed-financial-statements.htm

### FEDERAL RESERVE BANK OF NEW YORK

*Markets & Policy Implementation*
www.newyorkfed.org/markets/index.html

*Markets Data Dashboard and historical open market operations data*
www.newyorkfed.org/markets/data-hub
www.newyorkfed.org/markets/omo_transaction_data

*Electronic version of this report and the underlying data for the charts and tables*
www.newyorkfed.org/markets/annual_reports

### OPERATIONAL POLICIES, FAQS, OPERATION RESULTS, AND OTHER DETAIL REGARDING:

*Domestic market operations: Repurchase and reverse repurchase agreements, Treasury open market and securities lending operations, agency MBS open market operations*
www.newyorkfed.org/markets/domestic-market-operations

*International market operations: Foreign currency operations, foreign reserves management, central bank liquidity swaps*
www.newyorkfed.org/markets/international-market-operations

*New York Fed counterparties for market operations*
www.newyorkfed.org/markets/counterparties

*System Open Market Account holdings*
www.newyorkfed.org/markets/soma-holdings
www.newyorkfed.org/data-and-statistics/data-visualization/system-open-market-account-portfolio

*Consolidated list of statements and operating policies across all Desk open market operations*
www.newyorkfed.org/markets/op_policies

*Desk statement regarding small-value exercises*
www.newyorkfed.org/markets/operational-readiness

*Desk surveys of market expectations*
https://www.newyorkfed.org/markets/market-intelligence/survey-of-market-expectations

*FR 2420 Report of Selected Money Rates*
www.newyorkfed.org/markets/reference-rates

*Services for central banks and international institutions*
www.newyorkfed.org/markets/central-bank-and-international-account-services

# INDEX OF CHARTS AND TABLES

## CHARTS

# TABLES

# ENDNOTES

[1] For further details, see the *Teller Window* series on Monetary Policy Implementation at https://tellerwindow.newyorkfed.org/2024/08/05/summer-reading-on-monetary-policy-implementation/.

[2] See https://www.federalreserve.gov/newsevents/pressreleases/monetary20240131b.htm.

[3] The effective federal funds rate is calculated from the rates at which depository institutions and other eligible entities conduct overnight unsecured transactions in the federal funds market.

[4] See SEC rule, https://www.sec.gov/newsroom/press-releases/2023-247.

[5] An additional primary dealer counterparty was added in early 2025. See https://www.newyorkfed.org/markets/primarydealers.

[6] The U.S. Treasury sets the official foreign exchange policy of the United States. In close and continuous cooperation with the U.S. Treasury, the FOMC authorizes and directs foreign currency operations, including foreign exchange interventions, for the SOMA. The New York Fed, in its capacity as fiscal agent of the United States, may also execute such transactions on behalf of the Treasury's Exchange Stabilization Fund.

[7] Further details can be found in the New York Fed's Treasury and Federal Reserve Foreign Exchange Operations quarterly reports. See https://www.newyorkfed.org/markets/quar_reports.

[8] Reported on an amortized cost basis.

[9] The ON RRP reached a level of $98.4 billion on December 20, its lowest level since 2021.

[10] As a result of the Uniform MBS program, some securities held in the SOMA consisted of mortgages guaranteed by both Fannie Mae and Freddie Mac. However, within this report such mortgages are counted as being guaranteed by their most recent guarantor.

[11] Duration measures of the portfolio throughout this report are calculated on a par-weighted average basis.

[12] "Modified duration" is used to calculate the duration of Treasury securities. Modified duration approximates the percentage change in the price of a fixed-income security given a 100 basis point parallel shift in the yield curve and is most applicable to securities with fixed cash flows, such as Treasury securities.

[13] "Effective duration" is employed to measure the duration of MBS. Effective duration, which accounts for the potential alterations in cash flows as interest rates change, is suitable for capturing the duration of MBS because it is affected by mortgage borrowers' decisions to exercise or forgo their prepayment option. Homeowners' option to prepay their mortgage at any time without penalty adds uncertainty to the agency MBS holder's expected cash flows. In general, lower mortgage rates encourage homeowners to refinance their loans, thereby shortening the duration of the MBS securitizing these loans, while higher mortgage rates discourage homeowners from refinancing, thereby lengthening the duration of MBS.

[14] The ten-year equivalent is calculated using end-of-day prices for ten-year Treasury securities and current time to maturity.

[15] Macaulay duration is the weighted average time of future cash flows.

[16] For more information, see https://www.federalreserve.gov/publications/reports-to-congress-in-response-to-covid-19.htm.

[17] For more information on the Treasury's cash balance and financing policies, see "Quarterly Refunding Statement of Assistant Secretary for Financial Markets Josh Frost," https://home.treasury.gov/news/press-releases/jy2697.

[18] Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 authorized the Board of Governors to authorize Federal Reserve Banks to establish and maintain accounts for DFMUs. The DFMUs consist of The Clearing House Payments Company, L.L.C, CLS Bank International, Chicago Mercantile Exchange, Inc., The Depository Trust Company, Fixed Income Clearing Corporation, ICE Clear Credit L.L.C., National Securities Clearing Corporation, and The Options Clearing Corporation. For more details, see https://www.federalreserve.gov/paymentsystems/designated_fmu_about.htm.

[19] See "Assumed Funding Cost" in Table 3. The inclusion of this cost in the measurement of SOMA net income reflects a simplifying assumption that the interest costs of non-SOMA liabilities (for example, reserves and certain other deposits) are fully associated with the funding of SOMA. A portion of this interest cost could be considered as a cost of funding non-SOMA Federal Reserve assets (such as discount window loans and various other assets), but as a simplification and more conservative calculation that assumption is not used.

[20] These projections are intended to illustrate balance sheet mechanics and do not reflect day-to-day changes in non-reserve liabilities, which in practice are highly variable and influenced by seasonal factors and calendar-related dynamics. For example, the projections do not show how the balance sheet would evolve under large changes in the TGA associated with debt limit dynamics.

[21] For background on the drivers of demand for Federal Reserve liabilities, see https://www.newyorkfed.org/newsevents/speeches/2024/rem240207.

[22] As in past *Open Market Operations* reports, these projections assume that reductions in the portfolio are achieved only through redemptions of maturing securities, without asset sales. If the FOMC were to introduce sales of agency MBS, the path of the portfolio would diverge from what is presented here.

[23] In previous projection exercises, reserves as a share of NGDP was used as a metric to mark the timing of shifts in balance sheet policy. In this exercise, to reflect that decisions about the balance sheet will not be driven by a single metric, the timing of shifts in balance sheet policy are based on market expectations drawn from the Desk Survey.

[24] The pace of portfolio decline does not equal the sum of the redemption caps because agency MBS principal payments are not projected to reach the monthly redemption cap.

[25] An increase (decrease) in the deferred asset reflects an increase (decrease) in reserve balances when interest income is less than (more than) interest expenses paid to depository institutions' reserve accounts and other accounts that remunerate interest.

[26] A substantial portion of Federal Reserve liabilities are not remunerated, including Federal Reserve notes and the Treasury General Account.

[27] A rate scenario in which the curve steepened, with long-term rates rising by more than short-term rates, would generally mean a higher path for SOMA net income over the forecast horizon, as the portfolio would earn incremental coupon income over time relative to its expenses. Conversely, a scenario in which the yield curve flattened, with short-term rates rising by more than long-term rates, would generally result in a lower path for SOMA net income over time.

[28] Since unrealized gains and losses on the portfolio are mostly driven by the gains or losses on longer-term holdings, a rate shock where the curve steepens or flattens would increase (decrease) losses to the extent that longer-term rates increase (decrease).

[29] For details about the New York Fed policy on counterparties for market operations, see https://www.newyorkfed.org/markets/counterparties/policy-on-counterparties-for-market-operations.

[30] For the most recent lists of counterparties, see https://www.newyorkfed.org/markets/counterparties.

[31] These include the Treasury, agency debt, and agency MBS best practices published by the New York Fed–sponsored Treasury Market Practices Group, as well as the FX Global Code promulgated by the Global Foreign Exchange Committee and the New York Fed–sponsored Foreign Exchange Committee. See https://www.newyorkfed.org/tmpg/ and https://www.newyorkfed.org/fxc/.

[32] The U.S. Treasury promulgates rules and provides guidelines for Treasury auctions that are applicable to primary dealers and other bidders. Primary dealers are expected to bid their pro rata share of each auction, an amount that is determined as the total amount auctioned divided by the number of primary dealers at the time of the auction.

[33] For further details, see https://www.sec.gov/newsroom/press-releases/2023-129

[34] The Desk is directed to conduct transactions for the purpose of testing operational readiness for domestic open market operations and foreign currency operations as discussed in paragraphs II.7, III.9, and IV.6 of the FOMC Authorization and Continuing Directives for Open Market Operations, https://www.federalreserve.gov/monetarypolicy/files/FOMC_AuthorizationsContinuingDirectivesOMOs.

[35] Statement Regarding New FedTrade Platform, https://www.newyorkfed.org/markets/opolicy/operating_policy_241113.