# FINANCIAL STATEMENTS

# *Independent Auditors' Report*

To the Board of Governors of the Federal Reserve System
and the Board of Directors of the Federal Reserve Bank of New York:

We have audited the accompanying consolidated statements of condition of the Federal Reserve Bank of New York and subsidiaries as of December 31, 2017 and 2016, and the related consolidated statements of operations and changes in capital for the years then ended. We also have audited the Federal Reserve Bank of New York's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Federal Reserve Bank of New York's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Federal Reserve Bank of New York's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States) and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

The Federal Reserve Bank of New York's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with the accounting principles established by the Board of Governors of the Federal Reserve System (the "Board") as described in Note 3 of the consolidated financial statements and as set forth in the *Financial Accounting Manual for Federal Reserve Banks* ("FAM"). The Federal Reserve Bank of New York's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Federal Reserve Bank of New York; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with the FAM, and that receipts and expenditures of the Federal Reserve Bank of New York are being made only in accordance with authorizations of management and directors of the Federal Reserve Bank of New York; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Federal Reserve Bank of New York's assets that could have a material effect on the consolidated financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As described in Note 3 to the consolidated financial statements, the Federal Reserve Bank of New York has prepared these consolidated financial statements in conformity with the accounting principles established by the Board, as set forth in the FAM, which is a basis of accounting other than U.S. generally accepted accounting principles.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Federal Reserve Bank of New York and subsidiaries as of December 31, 2017 and 2016, and the results of their operations for the years then ended, on the basis of accounting described in Note 3. Also, in our opinion, the Federal Reserve Bank of New York maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

KPMG LLP

New York, New York
March 8, 2018

# Abbreviations

| | |
|---|---|
| ACH | Automated clearinghouse |
| ASC | Accounting Standards Codification |
| ASU | Accounting Standards Update |
| BEP | Benefit Equalization Retirement Plan |
| Budget Act | Bipartisan Budget Act of 2018 |
| Bureau | Bureau of Consumer Financial Protection |
| CDS | Credit default swaps |
| CIP | Committee on Investment Performance (related to System Retirement Plan) |
| DFMU | Designated financial market utility |
| FAM | *Financial Accounting Manual for Federal Reserve Banks* |
| FASB | Financial Accounting Standards Board |
| FOMC | Federal Open Market Committee |
| GAAP | Accounting principles generally accepted in the United States of America |
| GSE | Government-sponsored enterprise |
| IMF | International Monetary Fund |
| JPMC | JPMorgan Chase & Co. |
| LLC | Limited liability company |
| MAPD | Medicare Advantage and Prescription Drug |
| MBS | Mortgage-backed securities |
| ML | Maiden Lane LLC |
| MTM | Mark-to-market |
| RMBS | Residential mortgage-backed securities |
| OEB | Office of Employee Benefits of the Federal Reserve System |
| SDR | Special drawing rights |
| SERP | Supplemental Retirement Plan for Select Officers of the Federal Reserve Banks |
| SOMA | System Open Market Account |
| STRIPS | Separate Trading of Registered Interest and Principal of Securities |
| TBA | To be announced |
| TDF | Term Deposit Facility |
| TRS | Total return swap |
| VIE | Variable interest entity |

# *Consolidated Statements of Condition*

*As of December 31, 2017 and December 31, 2016*
*(in millions)*

| | | 2017 | 2016 |
|---|---|---|---|
| **ASSETS** | | | |
| Gold certificates | | $ 3,592 | $ 3,588 |
| Special drawing rights certificates | | 1,818 | 1,818 |
| Coin | | 47 | 65 |
| Loans | Note 4 | 70 | - |
| System Open Market Account: | Note 5 | | |
| Treasury securities, net (of which $15,796 and $14,338 is lent as of December 31, 2017 and 2016, respectively) | | 1,433,481 | 1,461,035 |
| Government-sponsored enterprise debt securities, net (of which $0 and $25 is lent as of December 31, 2017 and 2016, respectively) | | 2,676 | 9,474 |
| Federal agency and government-sponsored enterprise mortgage-backed securities, net | | 1,023,532 | 1,021,477 |
| Foreign currency denominated investments, net | | 6,825 | 6,413 |
| Central bank liquidity swaps | | 3,864 | 1,835 |
| Accrued interest receivable | | 13,912 | 14,547 |
| Other assets | | 7 | 5 |
| Investments held by consolidated variable interest entity (of which $1,720 and $1,742 is measured at fair value as of December 31, 2017 and 2016, respectively) | Note 6 | 1,722 | 1,742 |
| Prepaid pension benefit costs | Note 9 | 14 | - |
| Bank premises and equipment, net | Note 7 | 501 | 483 |
| Other assets | | 295 | 373 |
| Total assets | | $ 2,492,356 | $ 2,522,855 |
| | | | |
| **LIABILITIES AND CAPITAL** | | | |
| Federal Reserve notes outstanding, net | | $ 528,663 | $ 483,845 |
| System Open Market Account: | Note 5 | | |
| Securities sold under agreements to repurchase | | 317,560 | 412,693 |
| Other liabilities | | 314 | 576 |
| Liabilities of consolidated variable interest entity (of which $8 and $32 is measured at fair value as of December 31, 2017 and 2016, respectively) | Note 6 | 9 | 33 |
| Deposits: | | | |
| Depository institutions | | 1,206,638 | 1,032,881 |
| Treasury, general account | | 228,933 | 399,190 |
| Other deposits | | 27,816 | 42,386 |
| Interest payable to depository institutions and others | | 644 | 251 |
| Accrued benefit costs | Notes 9 and 10 | 618 | 1,497 |
| Accrued remittance to the Treasury | | 1,448 | 832 |
| Interdistrict settlement account | | 166,593 | 135,654 |
| Other liabilities | | 74 | 67 |
| Total liabilities | | 2,479,310 | 2,509,905 |
| | | | |
| Capital paid-in | | 9,894 | 9,748 |
| Surplus (including accumulated other comprehensive loss of $3,198 and $3,885 at December 31, 2017 and 2016, respectively) | | 3,152 | 3,202 |
| Total capital | | 13,046 | 12,950 |
| Total liabilities and capital | | $ 2,492,356 | $ 2,522,855 |

The accompanying notes are an integral part of these consolidated financial statements.

# Consolidated Statements of Operations

*For the years ended December 31, 2017 and December 31, 2016*

*(in millions)*

| | | 2017 | 2016 |
|---|---|---|---|
| **INTEREST INCOME** | | | |
| System Open Market Account: | Note 5 | | |
| Treasury securities, net | | $ 36,298 | $ 36,880 |
| Government-sponsored enterprise debt securities, net | | 235 | 556 |
| Federal agency and government-sponsored enterprise mortgage-backed securities, net | | 27,630 | 26,815 |
| Foreign currency denominated assets, net | | (5) | (2) |
| Central bank liquidity swaps | | 4 | 3 |
| Investments held by consolidated variable interest entity | Note 6 | 15 | 9 |
| Total interest income | | 64,177 | 64,261 |
| **INTEREST EXPENSE** | | | |
| System Open Market Account: | Note 5 | | |
| Securities sold under agreements to repurchase | | 1,899 | 647 |
| Other | | 4 | 2 |
| Deposits: | | | |
| Depository institution and others | | 17,050 | 7,829 |
| Term Deposit Facility | | 5 | 10 |
| Total interest expense | | 18,958 | 8,488 |
| Net interest income | | 45,219 | 55,773 |
| **NON-INTEREST INCOME** | | | |
| System Open Market Account: | Note 5 | | |
| Treasury securities gains (losses), net | | 16 | (9) |
| Federal agency and government-sponsored enterprise mortgage-backed securities gains, net | | 5 | 11 |
| Foreign currency translation gains (losses), net | | 612 | (43) |
| Other | | 15 | 20 |
| Investments held by consolidated variable interest entity losses, net | Note 6 | (9) | (19) |
| Income from services | | 117 | 109 |
| Compensation received for service costs provided | | 1 | 2 |
| Reimbursable services to government agencies | | 147 | 167 |
| Other | | 9 | 10 |
| Total non-interest income | | 913 | 248 |
| **OPERATING EXPENSES** | | | |
| Salaries and benefits | | 683 | 672 |
| Occupancy | | 63 | 71 |
| Equipment | | 21 | 18 |
| Net periodic pension expense | Note 9 | 498 | 529 |
| Compensation paid for service costs incurred | | 42 | 43 |
| Other | | 210 | 199 |
| Assessments: | | | |
| Board of Governors operating expenses and currency costs | | 382 | 370 |
| Bureau of Consumer Financial Protection | | 183 | 196 |
| Total operating expenses | | 2,082 | 2,098 |
| Net income before providing for remittances to the Treasury | | 44,050 | 53,923 |
| Earnings remittances to the Treasury | Note 3o | 44,553 | 53,595 |
| Net (loss) income after providing for remittances to the Treasury | | (503) | 328 |
| Change in prior service costs related to benefit plans | Notes 9 and 10 | 77 | 150 |
| Change in actuarial gains (losses) related to benefit plans | Notes 9 and 10 | 610 | (361) |
| Total other comprehensive income (loss) | | 687 | (211) |
| Comprehensive income | | $ 184 | $ 117 |

The accompanying notes are an integral part of these consolidated financial statements.

# *Consolidated Statements of Changes in Capital*

*For the years ended December 31, 2017 and December 31, 2016*
*(in millions, except share data)*

| | | Surplus | | | |
|---|---|---|---|---|---|
| | Capital paid-in | Net income retained | Accumulated other comprehensive income (loss) | Total surplus | Total capital |
| Balance at December 31, 2015 (194,684,253 shares) | $ 9,734 | $ 6,973 | $ (3,674) | $ 3,299 | $ 13,033 |
| Net change in capital stock issued (270,405 shares) | 14 | - | - | - | 14 |
| Comprehensive income: | | | | | |
| Net income | - | 328 | - | 328 | 328 |
| Other comprehensive loss | - | - | (211) | (211) | (211) |
| Dividends on capital stock | - | (214) | - | (214) | (214) |
| Net change in capital | 14 | 114 | (211) | (97) | (83) |
| Balance at December 31, 2016 (194,954,658 shares) | $ 9,748 | $ 7,087 | $ (3,885) | $ 3,202 | $ 12,950 |
| Net change in capital stock issued (2,923,554 shares) | 146 | - | - | - | 146 |
| Comprehensive income: | | | | | |
| Net loss | - | (503) | - | (503) | (503) |
| Other comprehensive income | - | - | 687 | 687 | 687 |
| Dividends on capital stock | - | (234) | - | (234) | (234) |
| Net change in capital | 146 | (737) | 687 | (50) | 96 |
| Balance at December 31, 2017 (197,878,212 shares) | $ 9,894 | $ 6,350 | $ (3,198) | $ 3,152 | $ 13,046 |

The accompanying notes are an integral part of these consolidated financial statements.

### (1) STRUCTURE

The Federal Reserve Bank of New York (Bank) is part of the Federal Reserve System (System) and is one of the 12 Federal Reserve Banks (Reserve Banks) created by Congress under the Federal Reserve Act of 1913 (Federal Reserve Act), which established the central bank of the United States. The Reserve Banks are chartered by the federal government and possess a unique set of governmental, corporate, and central bank characteristics. The Bank serves the Second Federal Reserve District, which includes the State of New York, the 12 northern counties of New Jersey, Fairfield County, Connecticut, the Commonwealth of Puerto Rico, and the U.S. Virgin Islands.

In accordance with the Federal Reserve Act, supervision and control of the Bank is exercised by a board of directors. The Federal Reserve Act specifies the composition of the board of directors for each of the Reserve Banks. Each board is composed of nine members serving three-year terms: three directors, including those designated as chairman and deputy chairman, are appointed by the Board of Governors of the Federal Reserve System (Board of Governors) to represent the public, and six directors are elected by member banks. Banks that are members of the System include all nationally-chartered banks and any state-chartered banks that apply and are approved for membership. Member banks are divided into three classes according to size. Member banks in each class elect one director representing member banks and one director representing the public. In any election of directors, each member bank receives one vote, regardless of the number of shares of Reserve Bank stock it holds.

In addition to the 12 Reserve Banks, the System also consists, in part, of the Board of Governors and the Federal Open Market Committee (FOMC). The Board of Governors, an independent federal agency, is charged by the Federal Reserve Act with a number of specific duties, including general supervision over the Reserve Banks. The FOMC is composed of members of the Board of Governors, the president of the Bank, and, on a rotating basis, four other Reserve Bank presidents.

### (2) OPERATIONS AND SERVICES

The Reserve Banks perform a variety of services and operations. These functions include participating in formulating and conducting monetary policy; participating in the payment system, including transfers of funds, automated clearinghouse (ACH) operations, and check collection; distributing coin and currency; performing fiscal agency functions for the U.S. Department of the Treasury (Treasury), certain federal agencies, and other entities; serving as the federal government’s bank; providing short-term loans to depository institutions; providing loans to participants in programs or facilities with broad-based eligibility in unusual and exigent circumstances; serving consumers and communities by providing educational materials and information regarding financial consumer protection rights and laws and information on community development programs and activities; and supervising bank holding companies, state member banks, savings and loan holding companies, U.S. offices of foreign banking organizations, edge and agreement corporations, and certain financial market utilities that have been designated as systemically important. Certain services are provided to foreign official and international account holders, primarily by the Bank.

The FOMC, in conducting monetary policy, establishes policy regarding domestic open market operations and oversees these operations. The FOMC has selected the Bank to execute open market transactions for the System Open Market Account (SOMA) as provided in its annual authorization. The FOMC authorizes and directs the Bank to conduct operations in domestic markets, including the direct purchase and sale of Treasury securities, government-sponsored enterprise (GSE) debt securities, and federal agency and GSE mortgage-backed securities (MBS); the purchase of these securities under agreements to resell; and the sale of these securities under agreements to repurchase. The Bank holds the resulting securities and agreements in a portfolio known as the SOMA. The Bank is authorized and directed to lend the Treasury securities and GSE debt securities that are held in the SOMA.

To be prepared to meet the needs specified by the FOMC to carry out the System’s central bank responsibilities, the FOMC authorized and directed the Bank to execute standalone spot and forward foreign exchange transactions in the resultant foreign currencies, to hold balances in those currencies, and to invest such foreign currency holdings, while maintaining adequate liquidity. The Bank holds these securities and agreements in the SOMA. The FOMC also authorized and directed the Bank to maintain reciprocal currency arrangements with the Bank of Canada and the Bank of Mexico in the maximum amounts of $2 billion and $3 billion, respectively, and at the request of the Treasury to conduct swap transactions with the United States Exchange Stabilization Fund in the maximum amount of $5 billion, also known as warehousing.

Because of the global character of bank funding markets, the System has, at times, coordinated with other central banks to provide liquidity. The FOMC authorized and directed the Bank to maintain standing U.S. dollar liquidity swap arrangements and standing foreign currency liquidity swap arrangements with the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank, and the Swiss National Bank. The Bank holds amounts outstanding under these liquidity swap lines in the SOMA. These liquidity swap lines, which were originally established as temporary arrangements, were converted to standing arrangements on October 31, 2013, and are subject to annual review and approval by the FOMC.

The FOMC has authorized and directed the Bank to conduct small-value exercises periodically for the purpose of testing operational readiness.

Although the Reserve Banks are separate legal entities, they collaborate on the delivery of certain services to achieve greater efficiency and effectiveness. This collaboration takes the form of centralized operations and product or function offices that have responsibility for the delivery of certain services on behalf of the Reserve Banks. Various operational and management models are used and are supported by service agreements among the Reserve Banks. In some cases, costs incurred by a Reserve Bank for services provided to other Reserve Banks are not shared; in other cases, the Reserve Banks are reimbursed for costs incurred in providing services to other Reserve Banks. Major services provided by the Bank on behalf of the System for which the costs were not reimbursed by the other Reserve Banks include the management of SOMA, the Wholesale Product Office, the Valuation Support team, and centralized business administration functions for wholesale payments services.

### (3) Significant Accounting Policies

Accounting principles for entities with the unique powers and responsibilities of the nation’s central bank have not been formulated by accounting standard-setting bodies. The Board of Governors has developed specialized accounting principles and practices that it considers to be appropriate for the nature and function of a central bank. These accounting principles and practices are documented in the *Financial Accounting Manual for Federal Reserve Banks* (FAM), which is issued by the Board of Governors. The Reserve Banks are required to adopt and apply accounting policies and practices that are consistent with the FAM. The consolidated financial statements and associated disclosures have been prepared in accordance with the FAM.

Due to the unique nature of the Bank’s powers and responsibilities as part of the nation’s central bank and given the System’s unique responsibility to conduct monetary policy, the Board has adopted accounting principles and practices in the FAM that differ from accounting principles generally accepted in the United States of America (GAAP). The more significant differences are the presentation of all SOMA securities holdings at amortized cost, adjusted for credit impairment, if any, and the recording of all SOMA securities on a settlement-date basis. Amortized cost, rather than the fair value presentation, more appropriately reflects the financial position associated with the Bank’s securities holdings given the System’s unique responsibility to conduct monetary policy. Although the application of fair value measurements to the securities holdings may result in values substantially greater or less than their carrying values, these unrealized changes in value have no direct effect on the quantity of reserves available to the banking system or on the ability of the Reserve Banks, as the central bank, to meet their financial obligations and responsibilities. Both the domestic and foreign components of the SOMA portfolio may involve transactions that result in gains or losses when holdings are sold before maturity. Decisions regarding securities and foreign currency transactions, including their purchase and sale, are primarily motivated by monetary policy and financial stability objectives rather than profit. Accordingly, fair values, earnings, and gains or losses resulting from the sale of such securities and currencies are incidental to open market operations and do not motivate decisions related to policy or open market activities. Accounting for these securities on a settlement-date basis, rather than the trade-date basis required by GAAP, better reflects the timing of the transaction's effect on the quantity of reserves in the banking system.

In addition, the Bank does not present a Consolidated Statement of Cash Flows as required by GAAP because the liquidity and cash position of the Bank are not a primary concern given the Reserve Bank's unique powers and responsibilities as a central bank. Other information regarding the Bank's activities is provided in, or may be derived from, the Consolidated Statements of Condition, Operations, and Changes in Capital, and the accompanying notes to the consolidated financial statements. Other than those described above, the accounting policies described in FAM are generally consistent with those in GAAP and the references to GAAP in the notes to the consolidated financial statements highlight those areas where FAM is consistent with GAAP.

Preparing the consolidated financial statements in conformity with the FAM requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates.

Significant accounts and accounting policies are explained below.

### a. Consolidation

The consolidated financial statements include the accounts and results of operations of the Bank as well as a variable interest entity (VIE), Maiden Lane Limited Liability Company (LLC) (ML). The consolidation of the VIE was assessed in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 810 (ASC 810), *Consolidation*, which requires a VIE to be consolidated by its controlling financial interest holder. Intercompany balances and transactions have been eliminated in consolidation. See Note 6 for additional information on the VIE. The consolidated financial statements of the Bank also include accounts and results of operations of Maiden and Nassau LLC, a Delaware LLC wholly-owned by the Bank, which was formed to own and operate the Bank-owned 33 Maiden Lane building.

The Bank consolidates a VIE if the Bank has a controlling financial interest, which is defined as the power to direct the significant economic activities of the entity and the obligation to absorb losses or the right to receive benefits of the entity that could potentially be significant to the VIE. To determine whether it is the controlling financial interest holder of a VIE, the Bank evaluates the VIE's design, capital structure, and relationships with the variable interest holders. The Bank reconsiders whether it has a controlling financial interest in a VIE, as required by ASC 810, at each reporting date or if there is an event that requires consideration.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) established the Bureau of Consumer Financial Protection (Bureau) as an independent bureau within the System that has supervisory authority over some institutions previously supervised by the Reserve Banks in connection with those institutions' compliance with consumer protection statutes. Section 1017 of the Dodd-Frank Act provides that the financial statements of the Bureau are not to be consolidated with those of the Board of Governors or the System. The Board of Governors funds the Bureau through assessments on the Reserve Banks as required by the Dodd-Frank Act. The Reserve Banks reviewed the law and evaluated the design of and their relationship to the Bureau and determined that it should not be consolidated in the Bank's consolidated financial statements.

### b. Gold and Special Drawing Rights Certificates

The Secretary of the Treasury is authorized to issue gold certificates to the Reserve Banks. Upon authorization, the Reserve Banks acquire gold certificates by crediting equivalent amounts in dollars to the account established for the Treasury. The gold certificates held by the Reserve Banks are required to be backed by the gold owned by the Treasury. The Treasury may reacquire the gold certificates at any time, and the Reserve Banks must deliver them to the Treasury. At such time, the Treasury's account is charged, and the Reserve Banks' gold certificate accounts are reduced. The value of gold for purposes of backing the gold certificates is set by law at $42 2/9 per fine troy ounce. Gold certificates are recorded by the Reserve Banks at original cost. The Board of Governors allocates the gold certificates among the Reserve Banks once a year based on each Reserve Bank's average Federal Reserve notes outstanding during the preceding 12 months.

Special drawing rights (SDR) are issued by the International Monetary Fund (IMF) to its members in proportion to each member's quota in the IMF at the time of issuance. SDRs serve as a supplement to international monetary reserves and may be transferred from one national monetary authority to another. Under the law providing for U.S. participation in the SDR system, the Secretary of the Treasury is authorized to issue SDR certificates to the Reserve Banks. When SDR certificates are issued to the Reserve Banks, equivalent amounts in U.S. dollars are credited to the account established for the Treasury and the Reserve Banks' SDR certificate accounts are increased. The Reserve Banks are required to purchase SDR certificates, at the direction of the Treasury, for the purpose of financing SDR acquisitions or for financing exchange-stabilization operations. At the time SDR certificate transactions occur, the Board of Governors allocates the SDR certificates among the Reserve Banks based upon each Reserve Bank's Federal Reserve notes outstanding at the end of the preceding calendar year. SDR certificates are recorded by the Reserve Banks at original cost.

### c. Coin

The amount reported as coin in the Consolidated Statements of Condition represents the face value of all United States coin held by the Bank. The Bank buys coin at face value from the U.S. Mint in order to fill depository institution orders.

### d. Loans

Loans to depository institutions are reported at their outstanding principal balances and interest income is recognized on an accrual basis.

Loans are impaired when current information and events indicate that it is probable that the Bank will not receive the principal and interest that are due in accordance with the contractual terms of the loan agreement. Impaired loans are evaluated to determine whether an allowance for loan loss is required. The Bank has developed procedures for assessing the adequacy of any allowance for loan losses using all available information to identify incurred losses. This assessment includes monitoring information obtained from banking supervisors, borrowers, and other sources to assess the credit condition of the borrowers and, as appropriate, evaluating collateral values. Generally, the Bank would discontinue recognizing interest income on impaired loans until the borrower's repayment performance demonstrates principal and interest would be received in accordance with the terms of the loan agreement. If the Bank discontinues recording interest on an impaired loan, cash payments are first applied to principal until the loan balance is reduced to zero; subsequent payments are applied as recoveries of amounts previously deemed uncollectible, if any, and then as interest income.

### e. Securities Purchased Under Agreements to Resell, Securities Sold Under Agreements to Repurchase, and Securities Lending

The Bank may engage in purchases of securities under agreements to resell (repurchase agreements) with primary dealers. Transactions under these repurchase agreements are typically settled through a tri-party arrangement. In the United States, there are currently two commercial custodial banks that provide these services. In a tri-party arrangement, a commercial custodial bank manages the collateral clearing, settlement, pricing, and pledging, and provides cash and securities custodial services for and on behalf of the Bank and counterparty. The collateral pledged must exceed the principal amount of the transaction by a margin determined by the Bank for each class and maturity of acceptable collateral. Collateral designated by the Bank as acceptable under repurchase agreements primarily includes Treasury securities (including Treasury Inflation-Protected Securities, Separate Trading of Registered Interest and Principal of Securities (STRIPS) Treasury securities, and Treasury Floating Rate Notes); direct obligations of several federal and GSE-related agencies, including Federal National Mortgage Association, Federal Home Loan Mortgage Corporation, and Federal Home Loan Banks; and pass-through federal agency and GSE MBS. The repurchase agreements are accounted for as financing transactions with the associated interest income recognized over the life of the transaction. These repurchase agreements are reported at their contractual amounts as “System Open Market Account: Securities purchased under agreements to resell” and the related accrued interest receivable is reported as a component of “System Open Market Account: Accrued interest receivable” in the Consolidated Statements of Condition. Interest income is reported as a component of “System Open Market Account: Securities purchased under agreements to resell” in the Consolidated Statements of Operations.

The Bank may engage in sales of securities under agreements to repurchase (reverse repurchase agreements) with primary dealers and with a set of expanded counterparties that includes banks, savings associations, GSEs, and domestic money market funds. Transactions under these reverse repurchase agreements are designed to have a margin of zero and are settled through a tri-party arrangement, similar to repurchase agreements. Reverse repurchase agreements may also be executed with foreign official and international account holders as part of a service offering. Reverse repurchase agreements are collateralized by a pledge of an amount of Treasury securities, GSE debt securities, or federal agency and GSE MBS that are held in the SOMA. Reverse repurchase agreements are accounted for as financing transactions, and the associated interest expense is recognized over the life of the transaction. These reverse repurchase agreements are reported at their contractual amounts as “System Open Market Account: Securities sold under agreements to repurchase” and the related accrued interest payable is reported as a component of “System Open Market Account: Other liabilities” in the Consolidated Statements of Condition. Interest expense is reported as a component of “System Open Market Account: Securities sold under agreements to repurchase” in the Consolidated Statements of Operations.

Treasury securities and GSE debt securities held in the SOMA may be lent to primary dealers, typically overnight, to facilitate the effective functioning of the domestic securities markets. The amortized cost basis of securities lent continues to be reported as “System Open Market Account: Treasury securities, net” and “System Open Market Account: Government-sponsored enterprise debt securities, net,” as appropriate, in the Consolidated Statements of Condition. Securities lending transactions are fully collateralized by Treasury securities based on the fair values of the securities lent increased by a margin determined by the Bank. The Bank charges the primary dealer a fee for borrowing securities, and these fees are reported as a component of “Non-interest income: System Open Market Account: Other” in the Consolidated Statements of Operations.

Activity related to repurchase agreements, reverse repurchase agreements, and securities lending is allocated to each of the Reserve Banks on a percentage basis derived from an annual settlement of the interdistrict settlement account that occurs in the second quarter of each year.

### f. Treasury Securities, Government-Sponsored Enterprise Debt Securities, Federal Agency and Government-Sponsored Enterprise Mortgage-Backed Securities, and Foreign Currency Denominated Investments

Interest income on Treasury securities, GSE debt securities, and foreign currency denominated investments included in the SOMA is recorded when earned and includes amortization of premiums and accretion of discounts. The Board of Governors approved, effective January 1, 2017, accounting for Treasury securities, GSE debt securities, and foreign government debt instruments held in the SOMA using the effective interest method. Previously, the cost bases of these securities were adjusted for amortization of premiums or accretion of discounts on a straight-line basis. This change was applied prospectively and did not have a material effect on the Bank’s financial statements for the year ended December 31, 2017.

Interest income on federal agency and GSE MBS is accrued using the effective interest method and includes amortization of premiums, accretion of discounts, and gains or losses associated with principal paydowns. Premiums and discounts related to federal agency and GSE MBS are amortized or accreted over the term of the security to stated maturity, and the amortization of premiums and accretion of discounts are accelerated when principal payments are received.

Gains and losses resulting from sales of securities are determined by specific issue based on average cost. Treasury securities, GSE debt securities, and federal agency and GSE MBS are reported net of premiums and discounts in the Consolidated Statements of Condition and interest income on those securities is reported net of the amortization of premiums and accretion of discounts in the Consolidated Statements of Operations.

In addition to outright purchases of federal agency and GSE MBS that are held in the SOMA, the Bank enters into dollar roll transactions (dollar rolls), which primarily involve an initial transaction to purchase or sell "to be announced" (TBA) MBS for delivery in the current month combined with a simultaneous agreement to sell or purchase TBA MBS on a specified future date. During the years ended December 31, 2017 and 2016, the Bank executed dollar rolls to facilitate settlement of outstanding purchases of federal agency and GSE MBS. The Bank accounts for dollar rolls as individual purchases and sales, on a settlement-date basis. Accounting for these transactions as purchases and sales, rather than as financing transactions, is appropriate because the purchase or sale component of the MBS TBA dollar roll is paired off or assigned prior to settlement and, as a result, there is no transfer and return of securities. Net gains (losses) resulting from MBS transactions are reported as a component of "Non-interest income: System Open Market Account: Federal agency and government-sponsored enterprise mortgage-backed securities gains, net" in the Consolidated Statements of Operations.

Foreign currency denominated investments, which can include foreign currency deposits, repurchase agreements, and government debt instruments, are revalued daily at current foreign currency market exchange rates in order to report these assets in U.S. dollars. Any negative interest associated with these foreign currency denominated investments is included as a component of "Interest income: System Open Market Account: Foreign currency denominated investments, net" in the Consolidated Statements of Operations. Foreign currency translation gains and losses that result from the daily revaluation of foreign currency denominated investments are reported as "Non-interest income: System Open Market Account: Foreign currency translation gains (losses), net" in the Consolidated Statements of Operations.

Because the Bank enters into commitments to buy Treasury securities, federal agency and GSE MBS, and foreign government debt instruments and records the related securities on a settlement-date basis in accordance with the FAM, the related outstanding commitments are not reflected in the Consolidated Statements of Condition.

Activity related to Treasury securities, GSE debt securities, and federal agency and GSE MBS, including the premiums, discounts, and realized gains and losses, is allocated to each Reserve Bank on a percentage basis derived from an annual settlement of the interdistrict settlement account that occurs in the second quarter of each year. Activity related to foreign currency denominated investments, including the premiums, discounts, and realized and unrealized gains and losses, is allocated to each Reserve Bank on a percentage basis, adjusted annually in the second quarter of each year, calculated as the ratio of each Reserve Bank's capital and surplus to the Reserve Banks' aggregate capital and surplus at the preceding December 31.

The Bank is authorized to hold foreign currency working balances and execute foreign exchange contracts to facilitate international payments and currency transactions it makes on behalf of foreign central bank and U.S. official institution customers. These foreign currency working balances and contracts are not related to the Bank's monetary policy operations. Foreign currency working balances are reported as a component of "Other assets" in the Consolidated Statements of Condition and the related foreign currency translation gains and losses that result from the daily revaluation of the foreign currency working balances and contracts are reported as a component of "Non-interest income: Other" in the Consolidated Statements of Operations.

### g. Central Bank Liquidity Swaps

Central bank liquidity swaps, which are transacted between the Bank and a foreign central bank, can be structured as either U.S. dollar or foreign currency liquidity swap arrangements.

Central bank liquidity swaps activity, including the related income and expense, is allocated to each Reserve Bank based on a percentage basis, adjusted annually in the second quarter of each year, calculated as the ratio of each

Reserve Bank's capital and surplus to the Reserve Banks' aggregate capital and surplus at the preceding December 31.

***U.S. dollar liquidity swaps***

At the initiation of each U.S. dollar liquidity swap transaction, the foreign central bank transfers a specified amount of its currency to a restricted account for the Bank in exchange for U.S. dollars at the prevailing market exchange rate. Concurrent with this transaction, the Bank and the foreign central bank agree to a second transaction that obligates the foreign central bank to return the U.S. dollars and the Bank to return the foreign currency on a specified future date at the same exchange rate as the initial transaction. The Bank's allocated portion of the foreign currency amounts that the Bank acquires are reported as "System Open Market Account: Central bank liquidity swaps" in the Consolidated Statements of Condition. Because the swap transaction will be unwound at the same U.S. dollar amount and exchange rate that were used in the initial transaction, the recorded value of the foreign currency amounts is not affected by changes in the market exchange rate.

The foreign central bank compensates the Bank based on the amount outstanding and the rate under the swap agreement. The Bank's allocated portion of the amount of compensation received during the term of the swap transaction is reported as "Interest income: System Open Market Account: Central bank liquidity swaps" in the Consolidated Statements of Operations.

***Foreign currency liquidity swaps***

Foreign currency liquidity swap transactions involve the transfer by the Bank at the prevailing market exchange rate, of a specified amount of U.S. dollars to an account for the foreign central bank in exchange for its currency. The foreign currency amounts that the Bank receives are recorded as a liability.

### h. Consolidated VIE – Investments and Liabilities

The investments held by the consolidated VIE consist primarily of short-term investments with maturities of greater than three months and less than one year, cash and cash equivalents, and swap contracts. Swap contracts consist of credit default swaps (CDS).

Investments are reported as "Investments held by consolidated variable interest entity" in the Consolidated Statements of Condition. Changes in fair value of the investments are recorded in "Non-interest income: Investments held by consolidated variable interest entity losses, net" in the Consolidated Statements of Operations.

Investments in debt securities are accounted for in accordance with FASB ASC Topic 320, *Investments – Debt and Equity Securities*, and the VIE elected the fair value option for all eligible assets and liabilities in accordance with FASB ASC Topic 825 (ASC 825), *Financial Instruments*. Other financial instruments, including swap contracts, are recorded at fair value in accordance with FASB ASC Topic 815 (ASC 815), *Derivatives and Hedging*.

The liabilities of the consolidated VIE consist primarily of swap contracts, cash collateral on swap contracts, and accruals for operating expenses. Swap contracts are recorded at fair value in accordance with ASC 815. Liabilities are reported as "Liabilities of consolidated variable interest entity" in the Consolidated Statements of Condition. Changes in fair value of the liabilities are recorded in "Non-interest income: Investments held by consolidated variable interest entity losses, net" in the Consolidated Statements of Operations.

### i. Bank Premises, Equipment, and Software

Bank premises and equipment are stated at cost less accumulated depreciation. Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets, which range from 2 to 50 years. Major alterations, renovations, and improvements are capitalized at cost as additions to the asset accounts and are depreciated over the remaining useful life of the asset or, if appropriate, over the unique useful life of the alteration, renovation, or improvement. Maintenance, repairs, and minor replacements are charged to operating expense in the year incurred. Reserve Banks may transfer assets to other Reserve Banks or may lease property of other Reserve Banks.

Costs incurred to acquire software are capitalized based on the purchase price. Costs incurred during the application development stage to develop internal-use software are capitalized based on the cost of direct services and materials associated with designing, coding, installing, and testing the software. Capitalized software costs are amortized on a straight-line basis over the estimated useful lives of the software applications, which generally range from two to five years. Maintenance costs and minor replacements related to software are charged to operating expense in the year incurred.

Capitalized assets, including software, buildings, leasehold improvements, furniture, and equipment, are impaired and an adjustment is recorded when events or changes in circumstances indicate that the carrying amount of assets or asset groups is not recoverable and significantly exceeds the assets' fair value.

### j. Interdistrict Settlement Account

Each Reserve Bank aggregates the payments due to or from other Reserve Banks. These payments result from transactions between the Reserve Banks and transactions that involve depository institution accounts held by other Reserve Banks, such as Fedwire funds and securities transfers and check and ACH transactions. The cumulative net amount due to or from the other Reserve Banks is reflected in the "Interdistrict settlement account" in the Consolidated Statements of Condition.

An annual settlement of the interdistrict settlement account occurs in the second quarter of each year. As a result of the annual settlement, the balance in each Bank's interdistrict settlement account is adjusted by an amount equal to the average balance in the account during the previous twelve-month period ended March 31. An equal and offsetting adjustment is made to each Bank's allocated portion of SOMA assets and liabilities.

### k. Federal Reserve Notes

Federal Reserve notes are the circulating currency of the United States. These notes, which are identified as issued to a specific Reserve Bank, must be fully collateralized. All of the Bank's assets are eligible to be pledged as collateral. The collateral value is equal to the book value of the collateral tendered with the exception of securities, for which the collateral value is equal to the par value of the securities tendered. The par value of reverse repurchase agreements is deducted from the eligible collateral value.

The Board of Governors may, at any time, call upon a Reserve Bank for additional security to adequately collateralize outstanding Federal Reserve notes. To satisfy the obligation to provide sufficient collateral for outstanding Federal Reserve notes, the Reserve Banks have entered into an agreement that provides for certain assets of the Reserve Banks to be jointly pledged as collateral for the Federal Reserve notes issued to all Reserve Banks. In the event that this collateral is insufficient, the Federal Reserve Act provides that Federal Reserve notes become a first and paramount lien on all the assets of the Reserve Banks. Finally, Federal Reserve notes are obligations of the United States government.

"Federal Reserve notes outstanding, net" in the Consolidated Statements of Condition represents the Bank's Federal Reserve notes outstanding, reduced by the Bank's currency holdings of $49,106 million and $50,774 million at December 31, 2017 and 2016, respectively.

At December 31, 2017 and 2016, all Federal Reserve notes outstanding, net, were fully collateralized. At December 31, 2017, all gold certificates, all SDR certificates, and $1,554 billion of domestic securities held in the SOMA were pledged as collateral. At December 31, 2017, no investments denominated in foreign currencies were pledged as collateral.

### l. Deposits

***Depository Institutions***

Depository institutions' deposits represent the reserve and service-related balances in the accounts that depository institutions hold at the Bank. Required reserve balances are those that a depository institution must hold to satisfy its reserve requirement. Reserve requirements are the amount of funds that a depository institution must hold in reserve against specified deposit liabilities. Excess reserves are those held by the depository institutions in excess of their required reserve balances. The interest rates paid on required reserve balances and excess balances are determined by the Board of Governors, based on an FOMC-established target range for the federal funds rate. Interest expense on depository institutions' deposits is accrued daily at the appropriate rate. Interest payable is reported as a component of "Interest payable to depository institutions and others" in the Consolidated Statements of Condition.

The Term Deposit Facility (TDF) consists of deposits with specific maturities held by eligible institutions at the Reserve Banks. The Reserve Banks pay interest on these deposits at interest rates determined by auction. Interest expense on depository institutions' deposits is accrued daily at the appropriate rate. Interest payable is reported as a component of "Interest payable to depository institutions and others" in the Consolidated Statements of Condition. There were no deposits held by the Bank under the TDF at December 31, 2017 and 2016.

***Treasury***

The Treasury general account is the primary operational account of the Treasury and is held at the Bank.

***Other***

Other deposits include the Bank's allocated portion of foreign central bank and foreign government deposits held at the Bank and those in which the Bank has an undivided interest. Other deposits also include cash collateral, deposits of designated financial market utilities (DFMUs), and GSE deposits held by the Bank. The Bank pays interest on deposits held by DFMUs at the rate paid on balances maintained by depository institutions or another rate determined by the Board from time to time, not to exceed the general level of short term interest rates. Interest payable is reported as a component of "Interest payable to depository institutions and others" in the Consolidated Statements of Condition.

### m. Capital Paid-in

The Federal Reserve Act requires that each member bank subscribe to the capital stock of the Reserve Bank in an amount equal to 6 percent of the capital and surplus of the member bank. These shares are nonvoting, with a par value of $100, and may not be transferred or hypothecated. As a member bank's capital and surplus changes, its holdings of Reserve Bank stock must be adjusted. Currently, only one-half of the subscription is paid in, and the remainder is subject to call. A member bank is liable for Reserve Bank liabilities up to twice the par value of stock subscribed by it.

The Federal Reserve Act requires each Reserve Bank to pay each member bank an annual dividend based on the amount of the member bank's paid-in capital stock and a rate determined by the member bank's total consolidated assets. Member banks with total consolidated assets in excess of a threshold established in the Federal Reserve Act receive a dividend equal to the smaller of 6 percent or the rate equal to the high yield of the 10-year Treasury note auctioned at the last auction held prior to the payment of the dividend. Member banks with total consolidated assets equal to or less than the threshold receive a dividend of 6 percent. The threshold for total consolidated assets was $10.1 billion and $10.0 billion for the years ended December 31, 2017 and 2016, respectively. This threshold is adjusted annually based on the Gross Domestic Product Price Index, which is published by the Bureau of Economic Analysis. The dividend is paid semiannually and is cumulative.

### n. Surplus

The Federal Reserve Act limits aggregate Reserve Bank surplus to $10 billion, which is allocated among the Reserve Banks based on the ratio of each Bank's capital paid-in to total Reserve Bank capital paid-in as of December 31 of each year. The amount reported as surplus by the Bank as of December 31, 2017 and 2016 represents the Bank's allocated portion of surplus.

Accumulated other comprehensive loss is reported as a component of "Surplus" in the Consolidated Statements of Condition and the Consolidated Statements of Changes in Capital. Additional information regarding the classifications of accumulated other comprehensive income is provided in Notes 9, 10, and 11.

### o. Earnings Remittances to the Treasury

The Federal Reserve Act requires that any amounts of the surplus funds of the Reserve Banks that exceed, or would exceed, the aggregate surplus limitation of $10 billion shall be transferred to the Board of Governors for transfer to the Treasury. The Bank remits excess earnings to the Treasury after providing for the cost of operations, payment of dividends, and reservation of an amount necessary to maintain surplus at the Bank's allocated portion of the $10 billion aggregate surplus limitation. Remittances to the Treasury are made on a weekly basis. The amount of the remittances to the Treasury is reported as "Earnings remittances to the Treasury" in the Consolidated Statements of Operations. The amount due to the Treasury is reported as "Accrued remittances to the Treasury" in the Consolidated Statements of Condition. See Note 12 for additional information on earnings remittances to the Treasury.

If earnings during the year are not sufficient to provide for the costs of operations, payment of dividends, and maintaining surplus at an amount equal to the Bank's allocated portion of the $10 billion aggregate surplus limitation, remittances to the Treasury are suspended. This decrease in earnings remittances to the Treasury results in a deferred asset that represents the amount of net earnings a Reserve Bank will need to realize before remittances to the Treasury resume.

### p. Income and Costs Related to Treasury Services

When directed by the Secretary of the Treasury, the Bank is required by the Federal Reserve Act to serve as fiscal agent and depositary of the United States Government. By statute, the Treasury has appropriations to pay for these services. During the years ended December 31, 2017 and 2016, the Bank was reimbursed for substantially all services provided to the Treasury as its fiscal agent.

### q. Income from Services, Compensation Received for Service Costs Provided, and Compensation Paid for Service Costs Incurred

The Bank has overall responsibility for managing the Reserve Banks' provision of Fedwire funds and securities services and, as a result, reports total System revenue for these services as "Non-interest income: Income from services" in its Consolidated Statements of Operations. The Bank compensates the applicable Reserve Banks for the costs incurred to provide these services and reports the resulting compensation paid as "Operating expenses: Compensation paid for service costs incurred" in its Consolidated Statements of Operations.

The Federal Reserve Bank of Atlanta has overall responsibility for managing the Reserve Banks' provision of check and ACH services to depository institutions, and the Federal Reserve Bank of Chicago has overall responsibility for managing the Reserve Banks' provision of electronic access services to depository institutions. The Reserve Bank that has overall responsibility for managing these services recognizes the related total System revenue in its Consolidated Statements of Operations. The Bank is compensated for costs incurred to provide these services by the Reserve Banks responsible for managing these services and reports this compensation as "Non-interest income: Compensation received for service costs provided" in its Consolidated Statements of Operations.

### r. Assessments

The Board of Governors assesses the Reserve Banks to fund its operations and the operations of the Bureau. These assessments are allocated to each Reserve Bank based on each Reserve Bank's capital and surplus balances. The Board of Governors also assesses each Reserve Bank for expenses related to producing, issuing, and retiring Federal Reserve notes based on each Reserve Bank's share of the number of notes comprising the System's net liability for Federal Reserve notes on December 31 of the prior year.

The Dodd-Frank Act requires that, after the transfer of its responsibilities to the Bureau on July 21, 2011, the Board of Governors fund the Bureau in an amount not to exceed a fixed percentage of the total operating expenses of the System as reported in the Board of Governor's 2009 annual report, which totaled $4.98 billion. After 2013, the amount will be adjusted annually in accordance with the provisions of the Dodd-Frank Act. The percentage of total operating expenses of the System for the years ended December 31, 2017 and 2016 was 12.98 percent ($646.2 million) and 12.68 percent ($631.7 million), respectively. The Bank's assessment for Bureau funding is reported as "Operating expenses: Assessments: Bureau of Consumer Financial Protection" in the Consolidated Statements of Operations.

### s. Fair Value

Investments and liabilities of the consolidated VIE and assets of the Retirement Plan for Employees of the System are measured at fair value in accordance with FASB ASC Topic 820 (ASC 820), *Fair Value Measurement*. ASC 820 defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. ASC 820 establishes a three-level fair value hierarchy that distinguishes between assumptions developed using market data obtained from independent sources (observable inputs) and the Bank's assumptions developed using the best information available in the circumstances (unobservable inputs). The three levels established by ASC 820 are described as follows:

- Level 1 – Valuation is based on quoted prices for identical instruments traded in active markets.

- Level 2 – Valuation is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.

- Level 3 – Valuation is based on model-based techniques that use significant inputs and assumptions not observable in the market. These unobservable inputs and assumptions reflect the Bank's estimates of inputs and assumptions that market participants would use in pricing the assets and liabilities. Valuation techniques include the use of option pricing models, discounted cash flow models, and similar techniques.

The inputs or methodology used for valuing assets and liabilities are not necessarily an indication of the risk associated with those assets and liabilities.

### t. Taxes

The Reserve Banks are exempt from federal, state, and local taxes, except for taxes on real property. The Bank's real property taxes were $11 million and $16 million for the years ended December 31, 2017 and 2016, respectively, and are reported as a component of "Operating expenses: Occupancy" in the Consolidated Statements of Operations.

### u. Restructuring Charges

The Reserve Banks recognize restructuring charges for exit or disposal costs incurred as part of the closure of business activities in a particular location, the relocation of business activities from one location to another, or a fundamental reorganization that affects the nature of operations. Restructuring charges may include costs associated with employee separations, contract terminations, and asset impairments. Expenses are recognized in the period in which the Bank commits to a formalized restructuring plan or executes the specific actions contemplated in the plan and all criteria for financial statement recognition have been met.

The Bank had no significant restructuring activities in 2017 and 2016.

### v. Recently Issued Accounting Standards

Other than the significant differences described in Note 3, the accounting policies described in FAM are generally consistent with those in GAAP. The following items represent recent GAAP accounting standards and describe how FAM was or will be revised to be consistent with these standards.

In May 2014, the FASB issued Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers (Topic 606)*. This update was issued to create common revenue recognition guidance for U.S. GAAP and International Financial Reporting Standards. The guidance is applicable to all contracts for the transfer of goods or services regardless of industry or type of transaction. This update requires recognition of revenue in a manner that reflects the consideration that the entity expects to receive in return for the transfer of goods or services to customers. Subsequently, the FASB issued a number of related ASUs including ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date;* ASU 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net);* ASU 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing;* ASU 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*; and ASU 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*. This revenue recognition accounting guidance is effective for the Bank for the year ending December 31, 2019, although the Bank may elect to adopt the guidance earlier. The Bank is continuing to evaluate the effect of this new guidance on its consolidated financial statements.

In January 2016, the FASB issued ASU 2016-01, *Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*. The amendments in this update eliminate the requirement to disclose methods and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the balance sheet. This update is effective for the Bank for the year ending December 31, 2019 and is not expected to have a material effect on the Bank’s consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. This update revises the model to assess how a lease should be classified and provides guidance for lessees, requiring lessees to present right-of-use assets and lease liabilities on the balance sheet. The update is effective for the Bank for the year ending December 31, 2020, although earlier adoption is permitted. The Bank is continuing to evaluate the effect of this new guidance on its consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. This update revises the methodology for assessing expected credit losses and requires consideration of reasonable and supportable information to inform credit loss estimates. The update is effective for the Bank for the year ending December 31, 2021, although earlier adoption is permitted. The Bank is continuing to evaluate the effect of this new guidance on its consolidated financial statements.

In October 2016, the FASB issued ASU 2016-17, *Consolidation (Topic 810): Interest Held through Related Parties That Are under Common Control*. This update clarifies the revised consolidation model from ASU 2015-02 for a reporting entity that is a single decision maker and primary beneficiary of a VIE. The reporting entity should consolidate all direct variable interests and a proportional share of indirect variable interests in the entity held through related parties. This update was effective for the Bank for the year ended December 31, 2017 and did not have an effect on the Bank's consolidated financial statements.

In December 2016, the FASB issued ASU 2016-19, *Technical Corrections and Improvements.* This update covers a wide range of topics in the accounting standard codification and addresses differences between original guidance and the codification. It provides clarification of certain guidance including reference corrections and makes minor improvements to accounting standards. This update was effective for the Bank for the year ended December 31, 2016 and did not have an impact on the Bank's consolidated financial statements.

In March 2017, the FASB issued ASU 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. This update requires an employer to disaggregate the service cost component from the other components of net benefit cost. It also provides explicit guidance on how to present the service cost component and the other components of net benefit cost in the income statement and allows only the service cost component of net benefit cost to be eligible for capitalization. This update is effective for the Bank for the year ending December 31, 2019, and the Bank is continuing to evaluate the effect of this new guidance on its consolidated financial statements.

In March 2017, the FASB issued ASU 2017-08, *Receivables—Nonrefundable Fees and Other Costs (Subtopic 310-20) –Premium Amortization on Purchased Callable Debt Securities*. This update shortens the amortization period for certain callable debt securities held at a premium. Specifically, the amendments require the premium to be amortized to the earliest call date. The amendments do not require an accounting change for securities held at a discount; the discount continues to be amortized to maturity. This update is effective for the Bank for the year ending December 31, 2019. The Bank is continuing to evaluate the effect of this new guidance on its consolidated financial statements.

## (4) LOANS

### Loans to Depository Institutions

The Bank offers primary, secondary, and seasonal loans to eligible borrowers (depository institutions that maintain reservable transaction accounts or nonpersonal time deposits and have established discount window borrowing privileges). Each program has its own interest rate and interest is accrued using the applicable interest rate established at least every 14 days by the Bank's board of directors, subject to review and determination by the Board of Governors. Primary and secondary loans are extended on a short-term basis, typically overnight, whereas seasonal loans may be extended for a period of up to nine months.

Primary, secondary, and seasonal loans are collateralized to the satisfaction of the Bank to reduce credit risk. Assets eligible to collateralize these loans include consumer, business, and real estate loans; Treasury securities; GSE debt securities; foreign sovereign debt; municipal, corporate, and state and local government obligations; asset-backed securities; corporate bonds; commercial paper; and bank-issued assets, such as certificates of deposit, bank notes, and deposit notes. Collateral is assigned a lending value that is deemed appropriate by the Bank, which is typically fair value reduced by a margin. Loans to depository institutions are monitored daily to ensure that borrowers continue to meet eligibility requirements for these programs. If a borrower no longer qualifies for these programs, the Bank will generally request full repayment of the outstanding loan or, for primary or seasonal loans, may convert the loan to a secondary credit loan. Collateral levels are reviewed daily against outstanding obligations, and borrowers that no longer have sufficient collateral to support outstanding loans are required to provide additional collateral or to make partial or full repayment.

Loans to depository institutions were $70 million and $0 million as of December 31, 2017 and 2016, respectively, with a remaining maturity within 15 days.

At December 31, 2017 and 2016, the Bank did not have any loans that were impaired, restructured, past due, or on non-accrual status, and no allowance for loan losses was required. There were no impaired loans during the years ended December 31, 2017 and 2016. Interest income attributable to loans to depository institutions was immaterial during the years ended December 31, 2017 and 2016.

## (5) SYSTEM OPEN MARKET ACCOUNT

### a. Domestic Securities Holdings

The Bank executes domestic open market operations and, on behalf of the Reserve Banks, holds the resulting securities in the SOMA.

Pursuant to FOMC directives, during the year ended December 31, 2016 and through September 30, 2017, the Bank continued to reinvest all principal payments from the SOMA's holdings of GSE debt securities and federal agency and GSE MBS in federal agency and GSE MBS and to roll over maturing Treasury securities at auction. In October 2017, the FOMC initiated a balance sheet normalization program intended to reduce gradually the SOMA holdings by decreasing reinvestment of the principal payments received from securities held in the SOMA through the implementation of monthly caps. Effective from October 2017 and through December 2017, the FOMC directed the Bank to roll over principal payments from the SOMA holdings of Treasury securities maturing during each calendar month that exceeded a $6 billion cap, and to reinvest in federal agency and GSE MBS the amount of principal payments from the SOMA holdings of GSE debt securities and federal agency and GSE MBS received during each calendar month that exceeded a $4 billion cap. According to the balance sheet normalization plan, the FOMC anticipates that it will increase the monthly cap on Treasury redemptions in steps of $6 billion at three-month intervals over 12 months until it reaches $30 billion per month, and that it will increase the monthly cap on GSE debt securities and federal agency and GSE MBS paydowns in steps of $4 billion at three-month intervals over 12 months until it reaches $20 billion per month. The FOMC also anticipates that the caps will remain in place once they reach their respective maximums so that the SOMA holdings will continue to decline in a gradual and predictable manner until the FOMC judges that the SOMA is holding no more securities than necessary to implement monetary policy efficiently and effectively. The Bank's allocated share of activity related to domestic open market operations was 56.309 percent and 56.907 percent at December 31, 2017 and 2016, respectively.

The Bank's allocated share of Treasury securities, GSE debt securities, and federal agency and GSE MBS, net, excluding accrued interest, held in the SOMA at December 31, 2017 and 2016 was as follows (in millions):

| | 2017 | | | |
|---|---|---|---|---|
| | Par | Unamortized premiums | Unaccreted discounts | Total amortized cost |
| Treasury securities | | | | |
| Notes | $ 914,810 | $ 5,442 | $ (2,654) | $ 917,598 |
| Bonds | 467,134 | 53,817 | (5,068) | 515,883 |
| Total Treasury securities | $ 1,381,944 | $ 59,259 | $ (7,722) | $ 1,433,481 |
| GSE debt securities | $ 2,473 | $ 203 | $ - | $ 2,676 |
| Federal agency and GSE MBS | $ 993,817 | $ 29,934 | $ (219) | $ 1,023,532 |

| | 2016 | | | |
|---|---|---|---|---|
| | Par | Unamortized premiums | Unaccreted discounts | Total amortized cost |
| Treasury securities | | | | |
| Notes | $ 932,230 | $ 8,411 | $ (3,195) | $ 937,446 |
| Bonds | 469,733 | 59,017 | (5,161) | 523,589 |
| Total Treasury securities | $ 1,401,963 | $ 67,428 | $ (8,356) | $ 1,461,035 |
| GSE debt securities | $ 9,208 | $ 266 | $ - | $ 9,474 |
| Federal agency and GSE MBS | $ 990,968 | $ 30,733 | $ (224) | $ 1,021,477 |

There were no material transactions related to repurchase agreements during the years ended December 31, 2017 and 2016.

During the years ended December 31, 2017 and 2016, the Bank entered into reverse repurchase agreements as part of its monetary policy activities. These operations have been undertaken as necessary to maintain the federal funds rate in a target range. In addition, reverse repurchase agreements are entered into as part of a service offering to foreign official and international account holders. Financial information related to reverse repurchase agreements allocated to the Bank and held in the SOMA for the years ended December 31, 2017 and 2016 was as follows (in millions):

| | Allocated to the Bank | | Total SOMA | |
|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 |
| Primary dealers and expanded counterparties: | | | | |
| Contract amount outstanding, end of year | $ 179,961 | $ 266,525 | $ 319,595 | $ 468,355 |
| Average daily amount outstanding, during the year | 82,482 | 60,822 | 145,959 | 105,648 |
| Maximum balance outstanding, during the year | 266,525 | 284,903 | 468,355 | 474,592 |
| Securities pledged (par value), end of year | 170,442 | 252,551 | 302,690 | 443,799 |
| Securities pledged (market value), end of year | 180,217 | 267,053 | 320,048 | 469,282 |
| Foreign official and international accounts: | | | | |
| Contract amount outstanding, end of year | $ 137,599 | $ 146,168 | $ 244,363 | $ 256,855 |
| Average daily amount outstanding, during the year | 136,454 | 139,717 | 241,581 | 241,848 |
| Maximum balance outstanding, during the year | 150,399 | 151,934 | 264,290 | 265,041 |
| Securities pledged (par value), end of year | 135,514 | 141,935 | 240,660 | 249,417 |
| Securities pledged (market value), end of year | 137,629 | 146,192 | 244,417 | 256,897 |
| Total contract amount outstanding, end of year | $ 317,560 | $ 412,693 | $ 563,958 | $ 725,210 |
| Supplemental information - interest expense: | | | | |
| Primary Dealers and expanded counterparties | $ 691 | $ 174 | $ 1,224 | $ 303 |
| Foreign official and international accounts | 1,208 | 473 | 2,141 | 819 |
| Total interest expense - securities sold under agreements to repurchase | $ 1,899 | $ 647 | $ 3,365 | $ 1,122 |

Securities pledged as collateral, at December 31, 2017 and 2016, consisted solely of Treasury securities. The contract amount outstanding as of December 31, 2017 of reverse repurchase agreements that were transacted with primary dealers and expanded counterparties had a term of one business day and matured on January 2, 2018. The contract amount outstanding as of December 31, 2017 of reverse repurchase agreements that were transacted with foreign official and international account holders had a term of one business day and matured on January 2, 2018.

The remaining maturity distribution of Treasury securities, GSE debt securities, federal agency and GSE MBS bought outright, and reverse repurchase agreements that were allocated to the Bank at December 31, 2017 and 2016 was as follows (in millions):

| | Within 15 days | 16 days to 90 days | 91 days to 1 year | Over 1 year to 5 years | Over 5 years to 10 years | Over 10 years | Total |
|---|---|---|---|---|---|---|---|
| December 31, 2017 | | | | | | | |
| Treasury securities (par value) | $ 11,600 | $ 60,622 | $ 177,611 | $ 606,601 | $ 174,769 | $ 350,741 | $ 1,381,944 |
| GSE debt securities (par value) | - | - | 1,116 | 35 | - | 1,322 | 2,473 |
| Federal agency and GSE MBS (par value)[1] | - | - | 1 | 97 | 11,269 | 982,450 | 993,817 |
| Securities sold under agreements to repurchase (contract amount) | 317,560 | - | - | - | - | - | 317,560 |
| December 31, 2016 | | | | | | | |
| Treasury securities (par value) | $ 8,426 | $ 23,474 | $ 85,796 | $ 696,735 | $ 227,216 | $ 360,316 | $ 1,401,963 |
| GSE debt securities (par value) | - | 1,622 | 5,087 | 1,163 | - | 1,336 | 9,208 |
| Federal agency and GSE MBS (par value)[1] | - | - | - | 44 | 6,023 | 984,901 | 990,968 |
| Securities sold under agreements to repurchase (contract amount) | 412,693 | - | - | - | - | - | 412,693 |

[1] The par amount shown for federal agency and GSE MBS is the remaining principal balance of the securities.

Federal agency and GSE MBS are reported at stated maturity in the table above. The estimated weighted-average life of these securities, which differs from the stated maturity primarily because it factors in scheduled payments and prepayment assumptions, was approximately 6.9 and 7.2 years as of December 31, 2017 and 2016, respectively.

The amortized cost and par value of Treasury securities and GSE debt securities that were loaned from the SOMA under securities lending agreements allocated to the Bank and held in the SOMA at December 31, 2017 and 2016 were as follows (in millions):

| | Allocated to the Bank | | Total SOMA | |
|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 |
| Treasury securities (amortized cost) | $ 15,796 | $ 14,338 | $ 28,053 | $ 25,195 |
| Treasury securities (par value) | 15,198 | 14,055 | 26,990 | 24,698 |
| GSE debt securities (amortized cost) | - | 25 | - | 44 |
| GSE debt securities (par value) | - | 25 | - | 44 |

Securities pledged as collateral by the counterparties in the securities lending arrangements at December 31, 2017 and 2016 consisted solely of Treasury securities. The securities lending agreements outstanding as of December 31, 2017 had a term of one business day and matured on January 2, 2018.

The Bank enters into commitments to buy and sell Treasury securities and records the related securities on a settlement-date basis. As of December 31, 2017, the total purchase price of the Treasury securities under outstanding commitments was $11,447 million, of which $6,446 million was allocated to the Bank. These commitments had contractual settlement dates extending through January 2, 2018.

The Bank enters into commitments to buy and sell federal agency and GSE MBS and records the related securities on a settlement-date basis. As of December 31, 2017, the total purchase price of the federal agency and GSE MBS under outstanding purchase commitments was $19,257 million, none of which was related to dollar rolls. The total purchase price of outstanding purchase commitments allocated to the Bank was $10,844 million, none of which was related to dollar rolls. These commitments, which had contractual settlement dates extending through January 2018, are for the purchase of TBA MBS for which the number and identity of the pools that will be delivered to fulfill the commitment are unknown at the time of the trade. As of December 31, 2017, there were no outstanding sales commitments for federal agency and GSE MBS. MBS commitments are subject to varying degrees of off-balance-sheet market risk and counterparty credit risk that result from their future settlement. The Bank requires the posting of cash collateral for MBS commitments as part of its risk management practices used to mitigate the counterparty credit risk.

Other assets consist primarily of cash and short-term investments related to the federal agency and GSE MBS portfolio. Other liabilities, which are primarily related to federal agency and GSE MBS purchases and sales, include the Bank's obligation to return cash margin posted by counterparties as collateral under commitments to purchase and sell federal agency and GSE MBS. In addition, other liabilities include obligations that arise from the failure of a seller to deliver MBS to the Bank on the settlement date. Although the Bank has ownership of and records its investments in the MBS as of the contractual settlement date, it is not obligated to make payment until the securities are delivered, and the amount included in other liabilities represents the Bank's obligation to pay for the securities when delivered. The amount of other assets and other liabilities allocated to the Bank and held in the SOMA at December 31, 2017 and 2016 was as follows (in millions):

| | Allocated to the Bank | | Total SOMA | |
|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 |
| Other assets: | | | | |
| MBS portfolio related cash and short term investments | $ 7 | $ 5 | $ 13 | $ 7 |
| Other | - | - | - | 1 |
| Total other assets | $ 7 | $ 5 | $ 13 | $ 8 |
| Other liabilities: | | | | |
| Cash margin | $ 271 | $ 560 | $ 481 | $ 983 |
| Obligations from MBS transaction fails | 8 | 5 | 14 | 9 |
| Other | 35 | 11 | 63 | 20 |
| Total other liabilities | $ 314 | $ 576 | $ 558 | $ 1,012 |

Accrued interest receivable on domestic securities holdings held in the SOMA was $24,655 million and $25,517 million as of December 31, 2017 and 2016, respectively, of which $13,883 million and $14,521 million, respectively, was allocated to the Bank. These amounts are reported as a component of "System Open Market Account: Accrued interest receivable" in the Consolidated Statements of Condition.

Information about transactions related to Treasury securities, GSE debt securities, and federal agency and GSE MBS allocated to the Bank and held in the SOMA during the years ended December 31, 2017 and 2016, is summarized as follows (in millions):

| | Allocated to the Bank | | | | |
|---|---|---|---|---|---|
| | Notes | Bonds | Total Treasury securities | GSE debt securities | Federal agency and GSE MBS |
| Balance at December 31, 2015 | $ 990,051 | $ 559,160 | $ 1,549,211 | $ 20,260 | $ 1,080,831 |
| Purchases[1] | 110,517 | 8,018 | 118,535 | - | 223,027 |
| Sales[1] | (304) | (35) | (339) | - | (121) |
| Realized gains (losses), net[2] | (13) | 4 | (9) | - | 4 |
| Principal payments and maturities | (108,763) | (9,521) | (118,284) | (9,655) | (217,711) |
| Amortization of premiums and accretion of discounts, net | (2,921) | (5,800) | (8,721) | (196) | (7,691) |
| Inflation adjustment on inflation-indexed securities | 319 | 809 | 1,128 | - | - |
| Annual reallocation adjustment[3] | (51,440) | (29,046) | (80,486) | (935) | (56,862) |
| Balance at December 31, 2016 | $ 937,446 | $ 523,589 | $ 1,461,035 | $ 9,474 | $ 1,021,477 |
| Purchases[1] | 91,184 | 8,946 | 100,130 | - | 183,421 |
| Sales[1] | (70) | (184) | (254) | - | (187) |
| Realized gains (losses), net[2] | (1) | 17 | 16 | - | 1 |
| Principal payments and maturities | (99,401) | (7,547) | (106,948) | (6,655) | (164,256) |
| Amortization of premiums and accretion of discounts, net | (2,144) | (4,471) | (6,615) | (61) | (5,960) |
| Inflation adjustment on inflation-indexed securities | 400 | 1,042 | 1,442 | - | - |
| Annual reallocation adjustment[3] | (9,816) | (5,509) | (15,325) | (82) | (10,964) |
| Balance at December 31, 2017 | $ 917,598 | $ 515,883 | $ 1,433,481 | $ 2,676 | $ 1,023,532 |
| Year Ended December 31, 2016 | | | | | |
| Supplemental information - par value of transactions: | | | | | |
| Purchases[4] | $ 110,656 | $ 8,009 | $ 118,665 | $ - | $ 214,955 |
| Sales | (316) | (26) | (342) | - | (116) |
| Year Ended December 31, 2017 | | | | | |
| Supplemental information - par value of transactions: | | | | | |
| Purchases[4] | $ 91,421 | $ 9,017 | $ 100,438 | $ - | $ 177,927 |
| Sales | (70) | (155) | (225) | - | (180) |

[1] Purchases and sales may include payments and receipts related to principal, premiums, discounts, and inflation compensation adjustments to the basis of inflation-indexed securities. The amount reported as sales includes the realized gains and losses on such transactions. Purchases and sales exclude MBS TBA transactions that are settled on a net basis.

[2] Realized gains (losses), net is the offset of the amount of realized gains and losses included in the reported sales amount.

[3] Reflects the annual adjustment to the Bank's allocated portion of the related SOMA securities that results from the annual settlement of the interdistrict settlement account, as discussed in Note 3j.

[4] Includes inflation compensation.

| | Total SOMA | | | | |
|---|---|---|---|---|---|
| | Notes | Bonds | Total Treasury securities | GSE debt securities | Federal agency and GSE MBS |
| Balance at December 31, 2015 | $ 1,649,228 | $ 931,448 | $ 2,580,676 | $ 33,748 | $ 1,800,449 |
| Purchases[1] | 190,992 | 13,882 | 204,874 | - | 387,210 |
| Sales[1] | (534) | (62) | (596) | - | (213) |
| Realized gains (losses), net[2] | (22) | 7 | (15) | - | 6 |
| Principal payments and maturities | (187,843) | (16,597) | (204,440) | (16,764) | (379,065) |
| Amortization of premiums and accretion of discounts, net | (5,049) | (10,033) | (15,082) | (336) | (13,384) |
| Inflation adjustment on inflation-indexed securities | 567 | 1,438 | 2,005 | - | - |
| Balance at December 31, 2016 | $ 1,647,339 | $ 920,083 | $ 2,567,422 | $ 16,648 | $ 1,795,003 |
| Purchases[1] | 161,378 | 15,849 | 177,227 | - | 324,524 |
| Sales[1] | (124) | (326) | (450) | - | (331) |
| Realized gains (losses), net[2] | (2) | 30 | 28 | - | 2 |
| Principal payments and maturities | (175,933) | (13,402) | (189,335) | (11,789) | (290,939) |
| Amortization of premiums and accretion of discounts, net | (3,796) | (7,917) | (11,713) | (107) | (10,559) |
| Inflation adjustment on inflation-indexed securities | 709 | 1,845 | 2,554 | - | - |
| Balance at December 31, 2017 | $ 1,629,571 | $ 916,162 | $ 2,545,733 | $ 4,752 | $ 1,817,700 |
| Year Ended December 31, 2016 | | | | | |
| Supplemental information - par value of transactions: | | | | | |
| Purchases[3] | $ 191,231 | $ 13,868 | $ 205,099 | $ - | $ 373,197 |
| Sales | (555) | (45) | (600) | - | (203) |
| Year Ended December 31, 2017 | | | | | |
| Supplemental information - par value of transactions: | | | | | |
| Purchases[3] | $ 161,796 | $ 15,976 | $ 177,772 | $ - | $ 314,797 |
| Sales | (125) | (275) | (400) | - | (320) |

[1] Purchases and sales may include payments and receipts related to principal, premiums, discounts, and inflation compensation adjustments to the basis of inflation-indexed securities. The amount reported as sales includes the realized gains and losses on such transactions. Purchases and sales exclude MBS TBA transactions that are settled on a net basis.

[2] Realized gains (losses), net is the offset of the amount of realized gains and losses included in the reported sales amount.

[3] Includes inflation compensation.

### b. Foreign Currency Denominated Investments

The Bank conducts foreign currency operations and, on behalf of the Reserve Banks, holds the resulting foreign currency denominated investments in the SOMA.

The Bank holds foreign currency deposits with foreign central banks and invests in foreign government debt instruments of France, Germany, the Netherlands, and Japan. These foreign government debt instruments are backed by the full faith and credit of the issuing foreign governments. In addition, the Bank may enter into repurchase agreements to purchase government debt securities for which the accepted collateral is the debt instruments issued by a foreign government.

At December 31, 2017 and 2016, there were no repurchase agreements outstanding and, consequently, no related foreign securities held as collateral.

The Bank's allocated share of activity related to foreign currency operations was 32.020 percent and 32.988 percent at December 31, 2017 and 2016, respectively.

Information about foreign currency denominated investments recorded at amortized cost and valued at foreign currency market exchange rates allocated to the Bank and held in the SOMA at December 31, 2017 and 2016 was as follows (in millions):

| | Allocated to Bank | | Total SOMA | |
|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 |
| Euro: | | | | |
| Foreign currency deposits | $ 1,943 | $ 1,387 | $ 6,070 | $ 4,205 |
| French government debt instruments | 989 | 1,284 | 3,089 | 3,892 |
| German government debt instruments | 717 | 622 | 2,239 | 1,884 |
| Dutch government debt instruments | 521 | 482 | 1,626 | 1,462 |
| Japanese yen: | | | | |
| Foreign currency deposits | 2,166 | 1,539 | 6,765 | 4,668 |
| Japanese government debt instruments | 489 | 1,099 | 1,527 | 3,331 |
| Total | $ 6,825 | $ 6,413 | $ 21,316 | $ 19,442 |

Net interest income earned on foreign currency denominated investments for the years ended December 31, 2017 and 2016 was immaterial for the Bank and held in the SOMA as follows (in millions):

| | Total SOMA | |
|---|---|---|
| | 2017 | 2016 |
| Net interest income:[1] | | |
| Euro | $ (19) | $ (11) |
| Japanese yen | 2 | 4 |
| Total net interest income | $ (17) | $ (7) |

[1] As a result of negative interest rates in certain foreign currency denominated investments held in the SOMA, interest income on foreign currency denominated investments, net contains negative interest of $36 million and $32 million for the years ended December 31, 2017 and 2016, respectively.

Accrued interest receivable on foreign currency denominated investments, net was $82 million and $79 million as of December 31, 2017 and 2016, respectively, of which $26 million and $26 million, respectively, was allocated to the Bank. These amounts are reported as a component of “System Open Market Account: Accrued interest receivable” in the Consolidated Statements of Condition.

The remaining maturity distribution of foreign currency denominated investments that were allocated to the Bank at December 31, 2017 and 2016 was as follows (in millions):

| | Within 15 days | 16 days to 90 days | 91 days to 1 year | Over 1 year to 5 years | Over 5 year to 10 years | Total |
|---|---|---|---|---|---|---|
| December 31, 2017 | | | | | | |
| Euro | $ 1,973 | $ 33 | $ 393 | $ 1,003 | $ 768 | $ 4,170 |
| Japanese yen | 2,166 | 20 | 84 | 385 | - | 2,655 |
| Total | $ 4,139 | $ 53 | $ 477 | $ 1,388 | $ 768 | $ 6,825 |
| December 31, 2016 | | | | | | |
| Euro | $ 1,403 | $ 110 | $ 386 | $ 1,047 | $ 829 | $ 3,775 |
| Japanese yen | 1,596 | 113 | 442 | 487 | - | 2,638 |
| Total | $ 2,999 | $ 223 | $ 828 | $ 1,534 | $ 829 | $ 6,413 |

There were no foreign exchange contracts related to foreign currency operations outstanding as of December 31, 2017.

The Bank enters into commitments to buy foreign government debt instruments and records the related securities on a settlement-date basis. As of December 31, 2017, there were no outstanding commitments to purchase foreign government debt instruments. During 2017, there were purchases and maturities of foreign government debt instruments of $576 million and $3,567 million, respectively, of which $184 million and $1,151 million, respectively, were allocated to the Bank. There were immaterial sales of foreign government debt instruments in 2017.

In connection with its foreign currency activities, the Bank may enter into transactions that are subject to varying degrees of off-balance-sheet market risk and counterparty credit risk that result from their future settlement. The Bank controls these risks by obtaining credit approvals, establishing transaction limits, receiving collateral in some cases, and performing monitoring procedures.

Foreign currency working balances held and foreign exchange contracts executed by the Bank to facilitate international payments and currency transactions made on behalf of foreign central banks and U.S. official institution customers were immaterial as of December 31, 2017 and 2016.

## c. Central Bank Liquidity Swaps

### *U.S. Dollar Liquidity Swaps*

The Bank's allocated share of U.S. dollar liquidity swaps was 32.020 percent and 32.988 percent at December 31, 2017 and 2016, respectively.

The total foreign currency held in the SOMA under U.S. dollar liquidity swaps at December 31, 2017 and 2016 was $12,067 million and $5,563 million, respectively, of which $3,864 million and $1,835 million, respectively, was allocated to the Bank.

The remaining maturity distribution of U.S. dollar liquidity swaps that were allocated to the Bank at December 31, 2017 and 2016 was as follows (in millions):

| | 2017 | 2016 |
|---|---|---|
| | Within 15 days | Within 15 days |
| Euro | $ 3,813 | $ 1,432 |
| Japanese yen | 51 | 403 |
| Total | $ 3,864 | $ 1,835 |

### *Foreign Currency Liquidity Swaps*

At December 31, 2017 and 2016, there was no balance outstanding related to foreign currency liquidity swaps.

## d. Fair Value of SOMA Assets and Liabilities

The fair value amounts below are presented solely for informational purposes and are not intended to comply with the fair value disclosures required by ASC 820. Although the fair value of SOMA security holdings can be substantially greater than or less than the recorded value at any point in time, these unrealized gains or losses have no effect on the ability of the Reserve Banks, as the central bank, to meet their financial obligations and responsibilities. Because SOMA securities are recorded at amortized cost, cumulative unrealized gains (losses) are not recognized in the Consolidated Statements of Condition and the changes in cumulative unrealized gains (losses) are not recognized in the Consolidated Statements of Operations.

The fair value of the Treasury securities, GSE debt securities, federal agency and GSE MBS, and foreign government debt instruments held in the SOMA is subject to market risk, arising from movements in market variables such as interest rates and credit risk. The fair value of federal agency and GSE MBS is also affected by the expected rate of prepayments of mortgage loans underlying the securities. The fair value of foreign government debt instruments is also affected by currency risk. Based on evaluations performed as of December 31, 2017 and 2016, there are no credit impairments of SOMA securities holdings.

The following table presents the amortized cost, fair value, and cumulative unrealized gains (losses) on the Treasury securities, GSE debt securities, and federal agency and GSE MBS allocated to the Bank and held in the SOMA at December 31, 2017 and 2016 (in millions):

| | Allocated to the Bank | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | | 2016 | | |
| | Amortized cost | Fair value | Cumulative unrealized gains (losses), net | Amortized cost | Fair value | Cumulative unrealized gains (losses), net |
| Treasury securities: | | | | | | |
| Notes | $ 917,598 | $ 914,765 | $ (2,833) | $ 937,446 | $ 942,959 | $ 5,513 |
| Bonds | 515,883 | 567,860 | 51,977 | 523,589 | 559,780 | 36,191 |
| Total Treasury Securities | 1,433,481 | 1,482,625 | 49,144 | 1,461,035 | 1,502,739 | 41,704 |
| GSE debt securities | 2,676 | 3,031 | 355 | 9,474 | 9,925 | 451 |
| Federal agency and GSE MBS | 1,023,532 | 1,019,150 | (4,382) | 1,021,477 | 1,017,198 | (4,279) |
| Total domestic SOMA portfolio securities holdings | $ 2,459,689 | $ 2,504,806 | $ 45,117 | $ 2,491,986 | $ 2,529,862 | $ 37,876 |
| Memorandum - Commitments for: | | | | | | |
| Purchases of Treasury securities | $ 6,446 | $ 6,457 | $ 11 | $ 6,646 | $ 6,669 | $ 23 |
| Purchases of federal agency and GSE MBS | 10,844 | 10,859 | 15 | 20,365 | 20,472 | 107 |
| Sales of federal agency and GSE MBS | - | - | - | - | - | - |

| | Total SOMA | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | | 2016 | | |
| | Amortized cost | Fair value | Cumulative unrealized gains (losses), net | Amortized cost | Fair value | Cumulative unrealized gains (losses), net |
| Treasury securities: | | | | | | |
| Notes | $ 1,629,571 | $ 1,624,540 | $ (5,031) | $ 1,647,339 | $ 1,657,026 | $ 9,687 |
| Bonds | 916,162 | 1,008,468 | 92,306 | 920,083 | 983,680 | 63,597 |
| Total Treasury Securities | 2,545,733 | 2,633,008 | 87,275 | 2,567,422 | 2,640,706 | 73,284 |
| GSE debt securities | 4,752 | 5,383 | 631 | 16,648 | 17,442 | 794 |
| Federal agency and GSE MBS | 1,817,700 | 1,809,918 | (7,782) | 1,795,003 | 1,787,484 | (7,519) |
| Total domestic SOMA portfolio securities holdings | $ 4,368,185 | $ 4,448,309 | $ 80,124 | $ 4,379,073 | $ 4,445,632 | $ 66,559 |
| Memorandum - Commitments for: | | | | | | |
| Purchases of Treasury securities | $ 11,447 | $ 11,467 | $ 20 | $ 11,679 | $ 11,719 | $ 40 |
| Purchases of federal agency and GSE MBS | 19,257 | 19,285 | 28 | 35,787 | 35,974 | 187 |
| Sales of federal agency and GSE MBS | - | - | - | - | - | - |

The fair value of Treasury securities and GSE debt securities was determined using pricing services that provide market consensus prices based on indicative quotes from various market participants. The fair value of federal agency and GSE MBS was determined using a pricing service that utilizes a model-based approach that considers observable inputs for similar securities.

The cost bases of repurchase agreements, reverse repurchase agreements, central bank liquidity swaps, and other investments held in the SOMA portfolio approximate fair value. Due to the short-term nature of these agreements and the defined amount that will be received upon settlement, the cost basis is estimated to approximate fair value.

At December 31, 2017 and 2016, the fair value of foreign currency denominated investments held in the SOMA was $21,348 million and $19,510 million, respectively, of which $6,836 million and $6,436 million, respectively, was allocated to the Bank. The fair value of foreign government debt instruments was determined using pricing services that provide market consensus prices based on indicative quotes from various market participants. The fair value of foreign currency deposits was determined by reference to market interest rates.

The following table provides additional information on the amortized cost and fair value of the federal agency and GSE MBS portfolio held in the SOMA and allocated to the Bank at December 31, 2017 and 2016 (in millions):

| Distribution of MBS holdings by coupon rate | 2017 Amortized cost | 2017 Fair value | 2016 Amortized cost | 2016 Fair value |
|---|---|---|---|---|
| Allocated to the Bank: | | | | |
| 2.0% | $ 5,050 | $ 4,921 | $ 6,007 | $ 5,829 |
| 2.5% | 62,194 | 61,023 | 69,043 | 67,515 |
| 3.0% | 379,602 | 372,169 | 394,662 | 385,014 |
| 3.5% | 355,080 | 354,886 | 319,401 | 318,968 |
| 4.0% | 163,194 | 164,348 | 156,863 | 159,269 |
| 4.5% | 38,329 | 40,484 | 49,140 | 52,417 |
| 5.0% | 15,965 | 16,920 | 20,889 | 22,284 |
| 5.5% | 3,558 | 3,795 | 4,722 | 5,087 |
| 6.0% | 490 | 529 | 657 | 713 |
| 6.5% | 70 | 75 | 93 | 102 |
| Total | $ 1,023,532 | $ 1,019,150 | $ 1,021,477 | $ 1,017,198 |
| Total SOMA: | | | | |
| 2.0% | $ 8,968 | $ 8,739 | $ 10,556 | $ 10,243 |
| 2.5% | 110,452 | 108,371 | 121,326 | 118,641 |
| 3.0% | 674,138 | 660,939 | 693,524 | 676,572 |
| 3.5% | 630,590 | 630,245 | 561,271 | 560,510 |
| 4.0% | 289,819 | 291,868 | 275,650 | 279,877 |
| 4.5% | 68,069 | 71,896 | 86,351 | 92,111 |
| 5.0% | 28,352 | 30,048 | 36,708 | 39,159 |
| 5.5% | 6,318 | 6,739 | 8,298 | 8,939 |
| 6.0% | 870 | 939 | 1,155 | 1,253 |
| 6.5% | 124 | 134 | 164 | 179 |
| Total | $ 1,817,700 | $ 1,809,918 | $ 1,795,003 | $ 1,787,484 |

The following tables present the realized gains (losses) and the change in the cumulative unrealized gains (losses) related to SOMA domestic securities holdings allocated to the Bank and held in the SOMA during the years ended December 31, 2017 and 2016 (in millions):

| | Allocated to the Bank | | | |
|---|---|---|---|---|
| | 2017 | | 2016 | |
| | Realized gains, net [1,2] | Change in cumulative unrealized gains (losses)[3, 4] | Realized gains (losses), net [1,2] | Change in cumulative unrealized gains (losses)[3, 4] |
| Treasury securities | $ 16 | $ 8,044 | $ (9) | $ (9,740) |
| GSE debt securities | - | (92) | - | (353) |
| Federal agency and GSE MBS | 5 | (76) | 11 | (8,909) |
| Total | $ 21 | $ 7,876 | $ 2 | $ (19,002) |

| | Total SOMA | | | |
|---|---|---|---|---|
| | 2017 | | 2016 | |
| | Realized gains, net [1,2] | Change in cumulative unrealized gains (losses)[3] | Realized gains (losses), net [1,2] | Change in cumulative unrealized gains (losses)[3] |
| Treasury securities | $ 28 | $ 13,991 | $ (15) | $ (21,949) |
| GSE debt securities | - | (163) | - | (623) |
| Federal agency and GSE MBS | 8 | (263) | 19 | (17,326) |
| Total | $ 36 | $ 13,565 | $ 4 | $ (39,898) |

[1] Realized gains (losses) for Treasury securities are reported in "Non-interest income: System Open Market Account: Treasury securities gains (losses), net" in the Consolidated Statements of Operations.

[2] Realized gains (losses) for federal agency and GSE MBS are reported in "Non-interest income: System Open Market Account: Federal agency and government-sponsored enterprise mortgage-backed securities gains, net" in the Consolidated Statements of Operations.

[3] Because SOMA securities are recorded at amortized cost, the change in the cumulative unrealized gains (losses) is not reported in the Consolidated Statements of Operations.

[4] The amount reported as change in cumulative unrealized gains (losses) allocated to the Bank is affected by the annual adjustment to the Bank's allocated portion of the related SOMA securities, as discussed in Note 3f.

The amount of change in cumulative unrealized gains (losses) position, net related to foreign currency denominated investments was a loss of $36 million and a gain of $5 million for the years ended December 31, 2017 and 2016, respectively, of which $12 million and $1 million, respectively, were allocated to the Bank. Realized gains, net related to foreign currency denominated investments was an immaterial amount for the year ended December 31, 2017 and zero for the year ended December 31, 2016.

Treasury securities, GSE debt securities, federal agency and GSE MBS, and foreign government debt instruments are classified as Level 2 within the ASC 820 hierarchy because the fair values are based on indicative quotes and other observable inputs obtained from independent pricing services. The fair value hierarchy level of SOMA financial assets is not necessarily an indication of the risk associated with those assets.

## (6) CONSOLIDATED VARIABLE INTEREST ENTITY

### a. Description of Consolidated VIE

To facilitate the merger of The Bear Stearns Companies, Inc. (Bear Stearns) and JPMorgan Chase & Co. (JPMC), the Bank extended credit to ML in June 2008. ML is a Delaware LLC formed by the Bank to acquire certain assets of Bear Stearns and to manage those assets. The assets acquired by ML were valued at $29.9 billion as of March 14, 2008, the date that the Bank committed to the transaction, and largely consisted of federal agency and GSE MBS, non-agency residential mortgage-back securities (RMBS), commercial and residential mortgage loans, and derivatives and associated hedges.

The Bank extended a senior loan of approximately $28.8 billion and JPMC extended a subordinated loan of $1.15 billion to finance the acquisition of the assets, both of which were repaid in full plus interest in 2012. The Bank has continued and will continue to sell the remaining assets from the ML portfolio as market conditions warrant and if the sales represent good value for the public. In accordance with the ML agreements, proceeds from future asset sales will be distributed to the Bank as contingent interest after all derivative instruments in ML have been terminated and paid or sold from the portfolio.

### b. Summary Information for Consolidated VIE

The classification of significant assets and liabilities of ML at December 31, 2017 and 2016 is summarized in the following table (in millions):

| | 2017 | 2016 |
|---|---|---|
| Assets: | | |
| Short-term investments | $ 998 | $ 1,618 |
| Swap contracts | 5 | 28 |
| Other investments | 1 | 17 |
| Subtotal | 1,004 | 1,663 |
| Cash, cash equivalents, accrued interest receivable, and other receivables | 716 | 79 |
| Cash collateral on swap contracts | 2 | - |
| Total investments held by consolidated VIE | $ 1,722 | $ 1,742 |
| Liabilities: | | |
| Swap contracts | $ 8 | $ 32 |
| Cash collateral on swap contracts | - | 1 |
| Other liabilities | 1 | - |
| Total Liabilities of consolidated VIE | $ 9 | $ 33 |

The Bank's approximate maximum exposure to loss at December 31, 2017 and 2016 was $1,004 million and $1,663 million, respectively. These estimates incorporate potential losses associated with the investments recorded on the Bank's balance sheet. Additionally, information concerning the notional exposure on swap contracts is contained in the derivative instruments section of this Note.

The net income (loss) attributable to ML for the year ended December 31, 2017 and 2016 was as follows (in millions):

| | 2017 | 2016 |
|---|---|---|
| Interest income: Investments held by consolidated VIE | $ 15 | $ 9 |
| Non-interest loss: | | |
| Realized portfolio holdings (losses) gains, net | (6) | 13 |
| Unrealized portfolio holdings losses, net | (3) | (32) |
| Non-interest loss: Consolidated VIE losses, net | (9) | (19) |
| Total net interest income and non-interest income (losses) | 6 | (10) |
| Less: Professional fees | 2 | 2 |
| Net income (loss) attributable to consolidated VIE | $ 4 | $ (12) |

***i. Debt Securities***

ML has investments in short-term instruments with maturities of greater than three months and less than one year when acquired. As of December 31, 2017 and 2016, ML's short-term instruments consisted of U.S. Treasury bills. Other investments primarily consist of non-agency RMBS.

***ii. Derivative Instruments***

Derivative contracts are instruments, such as swap contracts, that derive their value from underlying assets, indexes, reference rates, or a combination of these factors. The ML portfolio is composed of derivative financial instruments included in a total return swap (TRS) agreement with JPMC. ML and JPMC entered into the TRS with reference obligations representing CDS primarily on commercial mortgage-backed securities and RMBS, with various market participants, including JPMC.

On an ongoing basis, ML pledges collateral for credit or liquidity related shortfalls. Separately, ML and JPMC engage in bilateral posting of collateral to cover the net mark-to-market (MTM) variations in the swap portfolio. ML only nets the collateral posted to or received from JPMC from the bilateral MTM posting for the reference obligations for which JPMC is the counterparty.

As of December 31, 2017, ML has posted cash collateral associated with the TRS of $7 million. As of December 31, 2016, ML has received cash collateral associated with the TRS of $12 million, which is recorded as a component of ML's cash and cash equivalents. In addition, ML has pledged $10 million and $46 million of U.S. Treasury bills to JPMC as of December 31, 2017 and 2016, respectively.

ML has entered into an International Swaps and Derivatives Association, Inc. master netting agreement with JPMC in connection with the TRS. This agreement provides ML with the right to liquidate securities held as collateral and to offset receivables and payables with JPMC in the event of default. This agreement also establishes the method for determining the net amount of receivables and payables that ML is entitled to receive from and required to pay to the counterparties of the swaps that underlie the TRS based upon the fair value of the relevant CDS.

For the derivative balances reported in the Consolidated Statements of Condition, ML offsets its asset and liability positions held with the same counterparty. In addition, ML offsets the cash collateral posted to or received from JPMC against any net assets or liabilities of JPMC with ML under the TRS. As of December 31, 2017 and 2016, there were no amounts subject to an enforceable master netting agreement that were not offset in the Consolidated Statements of Condition.

The maximum potential amount of future payments the seller of credit protection could be required to make to the buyer of credit protection under a CDS is equal to the notional amount of the contract. For ML, the maximum potential payout (notional) associated with credit protection sold was $37 million and $143 million as of December 31, 2017 and 2016, respectively, and the maximum potential recovery (notional) associated with credit protection bought was $15 million and $124 million as of December 31, 2017 and 2016, respectively. The change in notional amounts is representative of the volume of activity for the year ended December 31, 2017.

There were 27 and 98 CDS contracts outstanding in the ML portfolio as of December 31, 2017 and 2016, respectively. Substantially all of the CDS held by ML had remaining maturities of greater than five years and reference obligations with non-investment grade (BB+ or lower) credit ratings as of December 31, 2017 and 2016.

### c. Fair Value Measurement

ML has adopted ASC 820 and ASC 825 and has elected the fair value option for all holdings. The accounting and classification of these investments appropriately reflect ML's and the Bank's intent with respect to the purpose of the investments and most closely reflect the amount of the assets available to liquidate the entity's obligations.

#### *Determination of Fair Value*

ML values its investments and cash equivalents on the basis of last available bid prices or current market quotations provided by dealers or pricing services selected under the supervision of the Bank's designated investment manager. To determine the value of a particular investment, pricing services may use certain information with respect to market transactions in such investments or comparable investments, various relationships observed in the market between investments, quotations from dealers, and pricing metrics and calculated yield measures based on valuation methodologies commonly employed in the market for such investments. The fair value of swap contracts is provided by JPMC as calculation agent and is reviewed by the investment manager.

Market quotations may not represent fair value in certain instances in which the investment manager and the VIE believe that facts and circumstances applicable to an issuer, a seller, a purchaser, or the market for a particular investment cause such market quotations to not reflect the fair value of an investment. In such cases or when market quotations are unavailable, the investment manager applies proprietary valuation models that use collateral performance scenarios and pricing metrics derived from the reported performance of investments with similar characteristics as well as available market data to determine fair value.

Due to the uncertainty inherent in determining the fair value of investments that do not have a readily available fair value, the fair value of these investments may differ from the values that may ultimately be realized and paid.

The following tables present the financial instruments recorded in the VIE at fair value as of December 31, 2017 by ASC 820 hierarchy (in millions):

| | Level 1[1] | Level 2[1] | Level 3[1] | Netting[2] | Total fair value |
|---|---|---|---|---|---|
| Assets: | | | | | |
| Short-term investments | $ 716 | $ - | $ - | $ - | $ 716 |
| Cash equivalents[3] | 998 | - | - | - | 998 |
| Swap contracts | - | - | 6 | (1) | 5 |
| Other investments | - | 1 | - | - | 1 |
| Total assets | $ 1,714 | $ 1 | $ 6 | $ (1) | $ 1,720 |
| Liabilities: | | | | | |
| Swap contracts | $ - | $ - | $ 14 | $ (6) | $ 8 |

[1] There were no transfers between Levels during the year ended December 31, 2017.

[2] Derivative receivables and payables and the related cash collateral received and paid are shown net when a master netting agreement exists.

[3] Cash equivalents consist primarily of money market funds.

The following tables present the financial instruments recorded in the VIE at fair value as of December 31, 2016 by ASC 820 hierarchy (in millions):

| | Level 1[1] | Level 2[1] | Level 3[1] | Netting[2] | Total fair value |
|---|---|---|---|---|---|
| Assets: | | | | | |
| Short-term investments | $ 1,618 | $ - | $ - | $ - | $ 1,618 |
| Cash equivalents[3] | 79 | - | - | - | 79 |
| Swap contracts | - | - | 72 | (44) | 28 |
| Other investments | - | 11 | 6 | - | 17 |
| Total assets | $ 1,697 | $ 11 | $ 78 | $ (44) | $ 1,742 |
| Liabilities: | | | | | |
| Swap contracts | $ - | $ - | $ 64 | $ (32) | $ 32 |

[1] There were no transfers between Level 1 and Level 2 and no material transfers between Level 2 and Level 3 during the year ended December 31, 2016.

[2] Derivative receivables and payables and the related cash collateral received and paid are shown net when a master netting agreement exists.

[3] Cash equivalents consist primarily of money market funds.

As of December 31, 2017 and 2016, both the Level 3 assets and liabilities held in the Consolidated Statements of Condition as "Investments held by consolidated variable interest entity" and "Liabilities of consolidated variable interest entity," respectively, and the associated unrealized gains and losses related to those assets and liabilities are immaterial.

## (7) Bank Premises, Equipment, and Software

Bank premises and equipment at December 31, 2017 and 2016 were as follows (in millions):

| | 2017 | 2016 |
|---|---|---|
| Bank premises and equipment: | | |
| Land and land improvements | $ 69 | $ 68 |
| Buildings | 563 | 548 |
| Building machinery and equipment | 127 | 121 |
| Construction in progress | 34 | 20 |
| Furniture and equipment | 107 | 97 |
| Subtotal | 900 | 854 |
| Accumulated depreciation | (399) | (371) |
| Bank premises and equipment, net | $ 501 | $ 483 |
| Depreciation expense, for the years ended December 31 | $ 34 | $ 37 |

The Bank leases space to outside tenants with remaining lease terms ranging from one to seven years. Rental income from such leases was $6 million and $7 million for the years ended December 31, 2017 and 2016, respectively, and is reported as a component of "Non-interest income: Other" in the Consolidated Statements of Operations. Future minimum lease payments that the Bank will receive under non-cancelable lease agreements in existence at December 31, 2017, are as follows (in millions):

| | | |
|---|---|---|
| 2018 | $ | 5 |
| 2019 | | 3 |
| 2020 | | 3 |
| 2021 | | 3 |
| 2022 | | 3 |
| Thereafter | | 2 |
| Total | $ | 19 |

The Bank had capitalized software assets, net of amortization, of $132 million and $124 million at December 31, 2017 and 2016, respectively. Amortization expense was $33 million and $34 million for the years ended December 31, 2017 and 2016, respectively. Capitalized software assets are reported as a component of "Other assets" in the Consolidated Statements of Condition and the related amortization is reported as a component of "Operating expenses: Other" in the Consolidated Statements of Operations.

### (8) Commitments and Contingencies

In conducting its operations, the Bank enters into contractual commitments, normally with fixed expiration dates or termination provisions, at specific rates and for specific purposes.

At December 31, 2017, the Bank was obligated under non-cancelable leases for premises and equipment with a remaining term of approximately one year. These leases provide for increased lease payments based upon increases in real estate taxes, operating costs, or selected price indexes.

Rental expense under operating leases for certain operating facilities, warehouses, and data processing and office equipment (including taxes, insurance, and maintenance when included in rent), net of sublease rentals, was $4 million and $3 million for the years ended December 31, 2017 and 2016, respectively.

Future minimum lease payments under non-cancelable operating leases, net of sublease rentals, with remaining terms of one year or more, at December 31, 2017, were immaterial.

At December 31, 2017, there were no material unrecorded unconditional purchase commitments or obligations in excess of one year.

Under the Insurance Agreement of the Reserve Banks, each of the Reserve Banks has agreed to bear, on a per-incident basis, a share of certain losses in excess of 1 percent of the capital paid-in of the claiming Reserve Bank, up to 50 percent of the total capital paid-in of all Reserve Banks. Losses are borne in the ratio of a Reserve Bank's capital paid-in to the total capital paid-in of all Reserve Banks at the beginning of the calendar year in which the loss is shared. No claims were outstanding under the agreement at December 31, 2017 and 2016.

The Bank is involved in certain legal actions and claims arising in the ordinary course of business. Although it is difficult to predict the ultimate outcome of these actions, in management's opinion, based on discussions with counsel, the legal actions and claims will be resolved without material adverse effect on the financial position or results of operations of the Bank.

## (9) Retirement and Thrift Plans

### Retirement Plans

The Bank currently offers three defined benefit retirement plans to its employees, based on length of service and level of compensation. Substantially all of the employees of the Reserve Banks, Board of Governors, and Office of Employee Benefits of the Federal Reserve System (OEB) participate in the Retirement Plan for Employees of the Federal Reserve System (System Plan).[1] Under the Dodd-Frank Act, newly hired Bureau employees are eligible to participate in the System Plan and, during the years ended December 31, 2017 and 2016, certain costs associated with the System Plan were reimbursed by the Bureau. In addition, employees at certain compensation levels participate in the Benefit Equalization Retirement Plan (BEP) and certain Reserve Bank officers participate in the Supplemental Retirement Plan for Select Officers of the Federal Reserve Banks (SERP).

The Bank, on behalf of the System, recognizes the net asset or net liability and costs associated with the System Plan in its consolidated financial statements. The Bank reports the net costs related to the System Plan, as well as the costs related to the BEP and SERP, as a component of “Operating expenses: Net periodic pension expense” in its Consolidated Statements of Operations. Accrued pension benefit costs are reported as a component of “Prepaid pension benefit costs” if the funded status is a net asset or “Accrued benefit costs” if the funded status is a net liability in the Consolidated Statements of Condition.

Following is a reconciliation of the beginning and ending balances of the System Plan benefit obligation for the years ended December 31, 2017 and 2016 (in millions):

| | 2017 | 2016 |
|---|---|---|
| Estimated actuarial present value of projected benefit obligation at January 1 | $ 14,642 | $ 13,270 |
| Service cost-benefits earned during the period | 486 | 475 |
| Interest cost on projected benefit obligation | 614 | 604 |
| Actuarial loss | 1,179 | 698 |
| Contributions by plan participants | 4 | 3 |
| Special termination benefits | 11 | 4 |
| Benefits paid | (435) | (412) |
| Estimated actuarial present value of projected benefit obligation at December 31 | $ 16,501 | $ 14,642 |

In October 2017, the Society of Actuaries released new mortality tables (RP-2017) and mortality projection scales (MP-2017). The System analyzed each of these updates to the mortality tables and compared them to the System’s actual retiree mortality experience. Based on these analyses, the System adopted modified RP-2017 mortality tables and adjusted MP-2017 projection scales reflecting the System’s recent mortality experience of System retirees through 2016. The adjusted tables and scales resulted in an estimated net decrease of the System Plan projected benefit obligation of approximately $70 million in 2017 and no mortality assumption adjustments were made in 2016.

[1] The OEB was established by the System to administer selected System benefit plans.

Following is a reconciliation showing the beginning and ending balance of the System Plan assets, the funded status, and the accrued pension benefit costs for the years ended December 31, 2017 and 2016 (in millions):

| | 2017 | 2016 |
|---|---|---|
| Estimated plan assets at January 1 (of which $13,668 and $12,477 is measured at fair value as of January 1, 2017 and 2016, respectively) | $ 13,699 | $ 12,500 |
| Actual return on plan assets | 2,497 | 992 |
| Contributions by the employers | 750 | 616 |
| Contributions by plan participants | 4 | 3 |
| Benefits paid | (435) | (412) |
| Estimated plan assets at December 31 (of which $16,454 and $13,668 is measured at fair value as of December 31, 2017 and 2016, respectively) | $ 16,515 | $ 13,699 |
| Funded status and accrued pension benefit costs | $ 14 | $ (943) |
| Amounts included in accumulated other comprehensive loss are shown below: | | |
| Prior service cost | $ (82) | $ (170) |
| Net actuarial loss | (3,045) | (3,674) |
| Total accumulated other comprehensive loss | $ (3,127) | $ (3,844) |

The Bank, on behalf of the System, funded $720 million and $580 million during the years ended December 31, 2017 and 2016, respectively. The Bureau is required by the Dodd-Frank Act to fund the System plan for each Bureau employee based on an established formula. During the years ended December 31, 2017 and 2016, the Bank received contributions from the Bureau of $30 million and $36 million, respectively.

The accumulated benefit obligation for the System Plan, which differs from the estimated actuarial present value of projected benefit obligation because it is based on current rather than future compensation levels, was $14,376 million and $12,869 million at December 31, 2017 and 2016, respectively.

The weighted-average assumptions used in developing the accumulated pension benefit obligation for the System Plan as of December 31 were as follows:

| | 2017 | 2016 |
|---|---|---|
| Discount rate | 3.65% | 4.15% |
| Rate of compensation increase | 4.00% | 4.00% |

Net periodic benefit expenses for the years ended December 31, 2017 and 2016 were actuarially determined using a January 1 measurement date. The weighted-average assumptions used in developing net periodic benefit expenses for the System Plan for the years were as follows:

| | 2017 | 2016 |
|---|---|---|
| Discount rate | 4.15% | 4.42% |
| Expected asset return | 6.50% | 6.75% |
| Rate of compensation increase | 4.00% | 4.00% |

Discount rates reflect yields available on high-quality corporate bonds that would generate the cash flows necessary to pay the System Plan's benefits when due. The expected long-term rate of return on assets is an estimate that is based on a combination of factors, including the System Plan's asset allocation strategy and historical returns; surveys of expected rates of return for various asset classes; and projected returns for equities and fixed income investments based on real interest rates, inflation expectations, and equity risk premiums.

The components of net periodic pension benefit expense (credit) for the System Plan for the years ended December 31, 2017 and 2016 are shown below (in millions):

| | 2017 | 2016 |
|---|---|---|
| Service cost - benefits earned during the period | $ 486 | $ 475 |
| Interest cost on projected benefit obligation | 614 | 604 |
| Amortization of prior service cost | 88 | 93 |
| Amortization of net loss | 209 | 211 |
| Expected return on plan assets | (899) | (847) |
| Net periodic pension benefit expense | 498 | 536 |
| Special termination benefits | 11 | 4 |
| Bureau of Consumer Financial Protection contributions | (30) | (36) |
| Total periodic pension benefit expense | $ 479 | $ 504 |

Estimated amounts that will be amortized from accumulated other comprehensive loss into net periodic pension benefit expense in 2018 are shown below (in millions):

| | |
|---|---|
| Prior service cost | $ 62 |
| Net actuarial loss | 138 |
| Total | $ 200 |

The recognition of special termination benefits is primarily the result of enhanced retirement benefits provided to employees in the normal course of operations. Following is a summary of expected benefit payments, excluding enhanced retirement benefits (in millions):

| | |
|---|---|
| 2018 | $ 504 |
| 2019 | 538 |
| 2020 | 576 |
| 2021 | 612 |
| 2022 | 651 |
| 2023 - 2027 | 3,831 |
| Total | $ 6,712 |

The System's Committee on Plan Administration is responsible for oversight of the operations of the Retirement Plan, which includes the Retirement Plan trust and for determining the amounts necessary to maintain the Retirement Plan on an actuarially sound basis and the amounts that employers must contribute to pay the expenses of OEB and the Retirement Plan.

The System's Committee on Investment Performance (CIP) is responsible for establishing investment policies, selecting investment managers, and monitoring the investment managers' compliance with its policies. At December 31, 2017, the System Plan's assets were held in 25 investment vehicles: 5 actively-managed long-duration fixed income portfolios, a passively-managed long-duration fixed income portfolio, an indexed U.S. equity fund, an indexed non-U.S. developed-markets equity fund, an indexed emerging-markets equity fund, 4 private equity limited partnerships, a private equity separate account, 4 core real estate funds, 6 real estate limited partnerships, and a money market fund.

The diversification of the System Plan's investments is designed to limit concentration of risk and the risk of loss related to an individual asset class. The three actively-managed long-duration fixed income portfolios are separate accounts benchmarked to a custom benchmark of 55 percent Barclays Long Credit Index and 45 percent of either Bloomberg, Barclays or Citigroup 15+ years U.S. Treasury STRIPS Index. This custom benchmark was selected as a proxy to match the liabilities of the Plan and the guidelines for these portfolios are designed to limit portfolio deviations from the benchmark. The passively-managed long-duration fixed-income portfolio is invested in 2 commingled funds and is benchmarked to 55 percent Barclays Long Credit Index and 45 percent Barclays 20+ STRIPS Index. The indexed U.S. equity fund is intended to track the overall U.S. equity market across market capitalizations and is benchmarked to the CRSP U.S. Total Market Index. The indexed non-U.S. developed-markets equity fund is intended to track the Morgan Stanley Capital International (MSCI) World ex-US Investible Markets Index (IMI), which includes stocks from 22 markets deemed by MSCI to be "developed markets." The indexed emerging-markets equity fund is intended to track the MSCI Emerging Markets IMI Index, which includes stocks from 24 markets deemed by MSCI to be "emerging markets." The 3 indexed equity funds include stocks from across the market capitalization spectrum (i.e., large-, mid- and small-cap stocks). The 4 private equity limited partnerships invest globally across various private equity strategies and the private equity separate account invests in various private equity investments globally across various strategies. The private equity separate account invests in various private equity funds (both primary and secondary interests) and coinvestment opportunities globally in private companies and targets returns in excess of public markets over a complete market cycle. The 4 core real estate funds invest in high quality, well leased, low leverage commercial real estate throughout the U.S. The 6 real estate limited partnerships invest in non-core U.S. and international commercial real estate including development and repositioning of assets. Finally, the money market fund, which invests in short term Treasury and agency debt and repurchase agreements backed by Treasury and agency debt, is the repository for cash balances and adheres to a constant dollar methodology.

Permitted and prohibited investments, including the use of derivatives, are defined in either the trust agreement (for the passively-managed long-duration fixed income portfolio) or the investment guidelines (for the remaining investments). The CIP reviews the trust agreement and approves all investment guidelines as part of the selection of each investment to ensure that they are consistent with the CIP's investment objectives for the System Plan's assets.

The System Plan's policy weight and actual asset allocations at December 31, 2017 and 2016 by asset category, are as follows:

| | 2017 | Actual asset allocations | |
|---|---|---|---|
| | Policy weight | 2017 | 2016 |
| Fixed income | 50.0% | 48.6% | 48.9% |
| U.S. equities | 22.0% | 22.8% | 24.6% |
| International equities | 15.6% | 16.0% | 16.3% |
| Emerging markets equities | 5.0% | 5.1% | 4.7% |
| Private equity | 3.7% | 3.6% | 2.4% |
| Real estate | 3.7% | 2.9% | 2.6% |
| Cash | 0.0% | 1.0% | 0.5% |
| Total | 100.0% | 100.0% | 100.0% |

Employer contributions to the System Plan may be determined using different assumptions than those required for financial reporting. The System Plan's anticipated funding level for 2018 is $240 million. In 2018, the Bank plans to make monthly contributions of $20 million and will reevaluate the monthly contributions upon completion of the 2018 actuarial valuation. The Bank's projected benefit obligation, funded status, and net pension expenses for the BEP and the SERP at December 31, 2017 and 2016, and for the years then ended, were immaterial.

### Determination of Fair Value

The System Plan's publicly available investments are valued on the basis of the last available bid prices or current market quotations provided by dealers, or pricing services. To determine the value of a particular investment, pricing services may use information on transactions in such investments, quotations from dealers, pricing metrics, market transactions in comparable investments, relationships observed in the market between investments, and calculated yield measures based on valuation methodologies commonly employed in the market for such investments.

Collective trust funds are valued using the net asset value, calculated daily, based on the fair value of the underlying investments. Private equity and real estate investments are valued using the net asset value, as a practical expedient, which is based on the fair value of the underlying investments. The net asset value is adjusted for contributions, distributions, and both realized and unrealized gains and losses incurred during the period. The realized and unrealized gains and losses are based on reported valuation changes.

Because of the uncertainty inherent in determining the fair value of investments that do not have a readily available fair value, the fair value of these investments may differ significantly from the values that would have been reported if a readily available fair value had existed for these investments and may differ materially from the values that may ultimately be realized.

The following tables present the financial instruments recorded at fair value as of December 31, 2017 and 2016 by ASC 820 hierarchy (in millions):

| | 2017 | | | |
|---|---|---|---|---|
| Description | Level 1 | Level 2 | Level 3 | Total [1] |
| Short-term investments | $ 226 | $ - | $ - | $ 226 |
| Treasury and Federal agency securities | 87 | 2,785 | - | 2,872 |
| Corporate bonds | - | 3,072 | - | 3,072 |
| Other fixed income securities | - | 381 | - | 381 |
| Collective trusts | 8,838 | - | - | 8,838 |
| Investments measured at net asset value[2] | - | - | - | 1,062 |
| Total investments at fair value[3] | $ 9,151 | $ 6,238 | $ - | $ 16,451 |

[1] There were no transfers between Levels during the year ended December 31, 2017.

[2] Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been categorized in the fair value hierarchy.

[3] In addition to total investments, the System Plan holds future margin receivable of $4 million and future margin payable of $1 million at December 31, 2017.

| Description | 2016 Level 1 | 2016 Level 2 | 2016 Level 3 | 2016 Total [1] |
|---|---|---|---|---|
| Short-term investments | $ 101 | $ - | $ - | $ 101 |
| Treasury and Federal agency securities | 40 | 2,232 | - | 2,272 |
| Corporate bonds | - | 2,469 | - | 2,469 |
| Other fixed income securities | - | 353 | - | 353 |
| Collective trusts | 7,749 | - | - | 7,749 |
| Investments measured at net asset value[2] | - | - | - | 724 |
| Total investments at fair value[3] | $ 7,890 | $ 5,054 | $ - | $ 13,668 |

[1] There were no transfers between Level 1 and Level 2 and no material transfers between Level 2 and Level 3 during the year ended December 31, 2016.

[2] Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been categorized in the fair value hierarchy.

[3] In addition to total investments at fair value, the System Plan holds future margin receivable of $1 million and future margin payables of $2 million at December 31, 2016.

The System Plan enters into futures contracts, traded on regulated exchanges, to manage certain risks and to maintain appropriate market exposure in meeting the investment objectives of the System Plan. The System Plan bears the market risk that arises from any unfavorable changes in the value of the securities or indexes underlying these futures contracts. The use of futures contracts involves, to varying degrees, elements of market risk in excess of the amount recorded in the Consolidated Statements of Condition. The guidelines established by the CIP further reduce risk by limiting the net futures positions, for most fund managers, to 15 percent of the market value of the advisor's portfolio.

At December 31, 2017 and 2016, a portion of short-term investments was available for futures trading. There were $7 million of Treasury securities pledged as collateral for both the years ended December 31, 2017 and 2016, respectively.

### Thrift Plan

Employees of the Bank participate in the defined contribution Thrift Plan for Employees of the Federal Reserve System (Thrift Plan). The Bank matches 100 percent of the first 6 percent of employee contributions from the date of hire and provides an automatic employer contribution of 1 percent of eligible pay. The Bank's Thrift Plan contributions totaled $30 million for both the years ended December 31, 2017 and 2016, respectively, and are reported as a component of "Operating expenses: Salaries and benefits" in the Consolidated Statements of Operations.

## (10) POSTRETIREMENT BENEFITS OTHER THAN RETIREMENT PLANS AND POSTEMPLOYMENT BENEFITS

### Postretirement Benefits Other Than Retirement Plans

In addition to the Bank's retirement plans, employees who have met certain age and length-of-service requirements are eligible for both medical and life insurance benefits during retirement.

The Bank and plan participants fund benefits payable under the medical and life insurance plans as due and the plans have no assets.

Following is a reconciliation of the beginning and ending balances of the benefit obligation for the years ended December 31, 2017 and 2016 (in millions):

| | 2017 | 2016 |
|---|---|---|
| Accumulated postretirement benefit obligation at January 1 | $ 386 | $ 401 |
| Service cost benefits earned during the period | 18 | 17 |
| Interest cost on accumulated benefit obligation | 16 | 17 |
| Net actuarial loss | 26 | 22 |
| Special termination benefits loss | - | 1 |
| Contributions by plan participants | 4 | 3 |
| Benefits paid | (21) | (19) |
| Medicare Part D subsidies | - | 1 |
| Plan amendments | - | (57) |
| Accumulated postretirement benefit obligation at December 31 | $ 429 | $ 386 |

At December 31, 2017 and 2016, the weighted-average discount rate assumptions used in developing the postretirement benefit obligation were 3.59 percent and 4.07 percent, respectively.

Discount rates reflect yields available on high-quality corporate bonds that would generate the cash flows necessary to pay the plan's benefits when due. The System Plan discount rate assumption setting convention uses an unrounded rate.

Following is a reconciliation of the beginning and ending balance of the plan assets, and the unfunded postretirement benefit obligation and accrued postretirement benefit costs for the years ended December 31, 2017 and 2016 (in millions):

| | 2017 | 2016 |
|---|---|---|
| Fair value of plan assets at January 1 | $ - | $ - |
| Contributions by the employer | 17 | 15 |
| Contributions by plan participants | 4 | 3 |
| Benefits paid | (21) | (19) |
| Medicare Part D subsidies | - | 1 |
| Fair value of plan assets at December 31 | $ - | $ - |
| Unfunded obligation and accrued postretirement benefit cost | $ 429 | $ 386 |
| Amounts included in accumulated other comprehensive loss are shown below: | | |
| Prior service cost | $ 47 | $ 58 |
| Net actuarial loss | (118) | (99) |
| Total accumulated other comprehensive loss | $ (71) | $ (41) |

Accrued postretirement benefit costs are reported as a component of "Accrued benefit costs" in the Consolidated Statements of Condition.

For measurement purposes, the assumed health-care cost trend rates at December 31, 2017 and 2016 are provided in the table below:

| | 2017 | 2016 |
|---|---|---|
| Health-care cost trend rate assumed for next year | 6.20% | 6.60% |
| Rate to which the cost trend rate is assumed to decline (the ultimate trend rate) | 4.75% | 4.75% |
| Year that the rate reaches the ultimate trend rate | 2022 | 2022 |

Assumed health-care cost trend rates have a significant effect on the amounts reported for health-care plans. A one percentage point change in assumed health-care cost trend rates would have the following effects for the year ended December 31, 2017 (in millions):

| | One percentage point increase | One percentage point decrease |
|---|---|---|
| Effect on aggregate of service and interest cost components of net periodic postretirement benefit costs | $ 8 | $ (6) |
| Effect on accumulated postretirement benefit obligation | 67 | (55) |

The following is a summary of the components of net periodic postretirement benefit expense for the years ended December 31, 2017 and 2016 (in millions):

| | 2017 | 2016 |
|---|---|---|
| Service cost-benefits earned during the period | $ 18 | $ 17 |
| Interest cost on accumulated benefit obligation | 16 | 17 |
| Amortization of prior service cost | (11) | - |
| Amortization of net actuarial loss | 7 | 2 |
| Total periodic expense | 30 | 36 |
| Special termination benefits loss | - | 1 |
| Net periodic postretirement benefit expense | $ 30 | $ 37 |

Estimated amounts that will be amortized from accumulated other comprehensive loss into net periodic postretirement benefit expense in 2018 are shown below:

| | |
|---|---|
| Prior service cost | $ (11) |
| Net actuarial loss | 9 |
| Total | $ (2) |

Net postretirement benefit costs are actuarially determined using a January 1 measurement date. At January 1, 2017 and 2016, the weighted-average discount rate assumptions used to determine net periodic postretirement benefit costs were 4.07 percent and 4.31 percent, respectively.

Net periodic postretirement benefit expense is reported as a component of "Operating expenses: Salaries and benefits" in the Consolidated Statements of Operations.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 established a prescription drug benefit under Medicare (Medicare Part D) and a federal subsidy to sponsors of retiree health-care benefit plans that provide benefits that are at least actuarially equivalent to Medicare Part D. The benefits provided under the Bank's plan to certain participants are at least actuarially equivalent to the Medicare Part D prescription drug benefit. The estimated effects of the subsidy are reflected in the actuarial loss in the accumulated postretirement benefit obligation and net periodic postretirement benefit expense.

During 2016, the Reserve Banks adopted an amendment to their health benefits program that added a Medicare Advantage and Prescription Drug (MAPD) plan to the program effective January 1, 2017. The MAPD plan is a fully insured product that combines into one integrated benefit Medicare and Medicare Supplement coverages, as well as prescription drug coverage. The plan amendment resulted in a change in the Bank's accumulated postretirement benefit obligation in the amount of $57 million as of December 31, 2016, with an equivalent change in the prior service component of accumulated other comprehensive income.

Federal Medicare Part D subsidy receipts were $0.5 million and $1.0 million in the years ended December 31, 2017 and 2016, respectively. Expected receipts in 2018, related to benefits paid in the year ended December 31, 2017, are immaterial. Expected receipts in 2018, related to benefits paid in the year ended December 31, 2016, are $0.1 million.

Following is a summary of expected postretirement benefit payments (in millions):

| | Without subsidy | With subsidy |
|---|---|---|
| 2018 | $ 19 | $ 18 |
| 2019 | 19 | 19 |
| 2020 | 20 | 20 |
| 2021 | 21 | 20 |
| 2022 | 22 | 21 |
| 2023 - 2027 | 129 | 126 |
| Total | $ 230 | $ 224 |

### Postemployment Benefits

The Bank offers benefits to former qualifying or inactive employees. Postemployment benefit costs are actuarially determined using a December 31 measurement date and include the cost of providing disability; medical, dental, and vision insurance; and survivor income benefits. The accrued postemployment benefit costs recognized by the Bank at December 31, 2017 and 2016 were $40 million and $38 million, respectively. This cost is included as a component of "Accrued benefit costs" in the Consolidated Statements of Condition. Net periodic postemployment benefit expense (credit) included in 2017 and 2016 operating expenses were $7 million and $5 million, respectively, and are recorded as a component of "Operating expenses: Salaries and benefits" in the Consolidated Statements of Operations.

## (11) ACCUMULATED OTHER COMPREHENSIVE INCOME AND OTHER COMPREHENSIVE INCOME

Following is a reconciliation of beginning and ending balances of accumulated other comprehensive income (loss) as of December 31, 2017 and 2016 (in millions):

| | 2017 | | | 2016 | | |
|---|---|---|---|---|---|---|
| | Amount related to defined benefit retirement plan | Amount related to postretirement benefits other than retirement plans | Total accumulated other comprehensive income (loss) | Amount related to defined benefit retirement plan | Amount related to postretirement benefits other than retirement plans | Total accumulated other comprehensive income (loss) |
| Balance at January 1 | $ (3,844) | $ (41) | $ (3,885) | $ (3,596) | $ (78) | $ (3,674) |
| Change in funded status of benefit plans: | | | | | | |
| Prior service costs arising during the year | - | - | - | - | 57 | 57 |
| Amortization of prior service cost | 88 [1] | (11) [2] | 77 | 93 [1] | - [2] | 93 |
| Change in prior service costs related to benefit plans | 88 | (11) | 77 | 93 | 57 | 150 |
| Net actuarial gain (loss) arising during the year | 420 | (26) | 394 | (552) | (22) | (574) |
| Amortization of net actuarial loss | 209 [1] | 7 [2] | 216 | 211 [1] | 2 [2] | 213 |
| Change in actuarial gain (losses) related to benefit plans | 629 | (19) | 610 | (341) | (20) | (361) |
| Change in funded status of benefit plans - other comprehensive income (loss) | 717 | (30) | 687 | (248) | 37 | (211) |
| Balance at December 31 | $ (3,127) | $ (71) | $ (3,198) | $ (3,844) | $ (41) | $ (3,885) |

[1] Reclassification is reported as a component of "Operating Expenses: Net periodic pension expense" in the Consolidated Statements of Operations.

[2] Reclassification is reported as a component of "Operating Expenses: Salaries and benefits" in the Consolidated Statements of Operations.

Additional detail regarding the classification of accumulated other comprehensive loss is included in Note 9 and 10.

## (12) RECONCILIATION OF TOTAL DISTRIBUTION OF COMPREHENSIVE INCOME

In accordance with the Federal Reserve Act, the Bank remits excess earnings to the Treasury after providing for the cost of operations, payment of dividends, and reservation of an amount necessary to maintain surplus at the Bank's allocated portion of the $10 billion aggregate surplus limitation, which was $3,152 million and $3,202 million for the years ending December 31, 2017 and 2016, respectively. The following table presents the distribution of the Bank's and System total comprehensive income for the years ended December 31, 2017 and 2016 (in millions):

| | Bank's portion | | System total | |
|---|---|---|---|---|
| | 2017 | 2016 | 2017 | 2016 |
| Net income before providing for remittances to Treasury | $ 44,050 | $ 53,923 | $ 80,692 | $ 92,361 |
| Other comprehensive income (loss) | 687 | (211) | 651 | (183) |
| Comprehensive income - available for distribution | $ 44,737 | $ 53,712 | $ 81,343 | $ 92,178 |
| Distribution of comprehensive income (loss): | | | | |
| Transfer to (from) surplus | $ (50) | $ (97) | $ - | $ - |
| Dividends | 234 | 214 | 784 | 711 |
| Earnings remittances to the Treasury | 44,553 | 53,595 | 80,559 | 91,467 |
| Total distribution of comprehensive income (loss) | $ 44,737 | $ 53,712 | $ 81,343 | $ 92,178 |

### (13) SUBSEQUENT EVENTS

The following subsequent event took place after the balance sheet date but was not present at the balance sheet date. In accordance with FASB ASC Topic 855 Subsequent Events, the Bank's 2017 financial statements were not updated for the impact of this event.

Effective February 9, 2018, the Bipartisan Budget Act of 2018 (Budget Act) reduced the statutory limit on aggregate Reserve Bank surplus from $10 billion to $7.5 billion, which required the Reserve Banks to make a lump-sum payment to the Treasury in the amount of $2.5 billion. The payment was remitted to the Treasury on February 22, 2018. The Bank's share of this remittance was $788 million. Reserve Bank surplus is allocated among Reserve Banks as described in Note 3(n). After making the transfer required by the Budget Act, the Bank's allocated portion of the aggregate $7.5 billion surplus is $2.4 billion.

There were no other subsequent events that required adjustments to or disclosures in the consolidated financial statements as of December 31, 2017. Subsequent events were evaluated through March 8, 2018, which is the date that the consolidated financial statements were available to be issued.