



Financial Statements: Federal Reserve Bank of Boston

As of and for the Years Ended
December 31, 2018 and 2017 and
Independent Auditors' Report

Federal Reserve Bank of Boston

Contents

	Page
Management's Report on Internal Control over Financial Reporting	1
Independent Auditors' Report	2-3
Abbreviations	4
Financial Statements:	
Statements of Condition as of December 31, 2018 and December 31, 2017	5
Statements of Operations for the years ended December 31, 2018 and December 31, 2017	6
Statements of Changes in Capital for the years ended December 31, 2018 and December 31, 2017	7
Notes to Financial Statements	8-39

Management's Report on Internal Control Over Financial Reporting

March 8, 2019

To the Board of Directors:

The management of the Federal Reserve Bank of Boston (Bank) is responsible for the preparation and fair presentation of the Statements of Condition as of December 31, 2018 and 2017, and the Statements of Operations, and Statements of Changes in Capital for the years then ended (the financial statements). The financial statements have been prepared in conformity with the accounting principles, policies, and practices established by the Board of Governors of the Federal Reserve System as set forth in the Financial Accounting Manual for Federal Reserve Banks (FAM), and, as such, include some amounts that are based on management judgments and estimates. To our knowledge, the financial statements are, in all material respects, fairly presented in conformity with the accounting principles, policies and practices documented in the FAM and include all disclosures necessary for such fair presentation.

The management of the Bank is responsible for establishing and maintaining effective internal control over financial reporting as it relates to the financial statements. The Bank's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external reporting purposes in accordance with the FAM. The Bank's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the Bank's assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with FAM, and that the Bank's receipts and expenditures are being made only in accordance with authorizations of its management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Bank's assets that could have a material effect on its financial statements.

Even effective internal control, no matter how well designed, has inherent limitations, including the possibility of human error, and therefore can provide only reasonable assurance with respect to the preparation of reliable financial statements. 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.

The management of the Bank assessed its internal control over financial reporting based upon the criteria established in the Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, we believe that the Bank maintained effective internal control over financial reporting.



Eric S. Rosengren, President



Kenneth C. Montgomery, First Vice President



Aparna Ramesh, Chief Financial Officer



KPMG LLP
Two Financial Center
60 South Street
Boston, MA 02111

Independent Auditors' Report

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

We have audited the accompanying statements of condition of the Federal Reserve Bank of Boston ("FRB Boston") as of December 31, 2018 and 2017, and the related statements of operations and changes in capital for the years then ended. We also have audited the FRB Boston's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The FRB Boston's management is responsible for these 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 financial statements and an opinion on the FRB Boston'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 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 FRB Boston's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of 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 financial statements and as set forth in the *Financial Accounting Manual for Federal Reserve Banks ("FAM")*. The FRB Boston'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 FRB Boston; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with the FAM, and that receipts and expenditures of the FRB Boston are being made only in accordance with authorizations of management and directors of the FRB Boston; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the FRB Boston's assets that could have a material effect on the 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 financial statements, the FRB Boston has prepared these 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 financial statements referred to above present fairly, in all material respects, the financial position of the FRB Boston as of December 31, 2018 and 2017, and the results of its operations for the years then ended, on the basis of accounting described in Note 3. Also, in our opinion, the FRB Boston maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

KPMG LLP

Boston, Massachusetts
March 8, 2019

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
FAM	<i>Financial Accounting Manual for Federal Reserve Banks</i>
FASB	Financial Accounting Standards Board
FOMC	Federal Open Market Committee
FRBNY	Federal Reserve Bank of New York
GAAP	Accounting principles generally accepted in the United States of America
GSE	Government-sponsored enterprise
IMF	International Monetary Fund
MBS	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
TBA	To be announced
TDF	Term Deposit Facility

Federal Reserve Bank of Boston

Statements of Condition

As of December 31, 2018 and December 31, 2017
(in millions)

	2018	2017
<u>ASSETS</u>		
Gold certificates	\$ 364	\$ 349
Special drawing rights certificates	196	196
Coin	41	47
Loans	8	-
System Open Market Account:		
Treasury securities, net (of which \$479 and \$547 is lent as of December 31, 2018 and 2017, respectively)	43,975	49,600
Government-sponsored enterprise debt securities, net (of which \$0 is lent as of December 31, 2018 and 2017)	52	93
Federal agency and government-sponsored enterprise mortgage-backed securities, net	32,154	35,416
Foreign currency denominated investments, net	890	924
Central bank liquidity swaps	179	523
Accrued interest receivable	426	484
Bank premises and equipment, net	119	129
Interdistrict settlement account	27,157	12,789
Other assets	40	50
Total assets	<u>\$ 105,601</u>	<u>\$ 100,600</u>
<u>LIABILITIES AND CAPITAL</u>		
Federal Reserve notes outstanding, net	\$ 52,254	\$ 51,106
System Open Market Account:		
Securities sold under agreements to repurchase	5,806	10,988
Other liabilities	1	11
Deposits:		
Depository institutions	45,645	36,282
Other deposits	20	267
Interest payable to depository institutions and others	26	15
Accrued benefit costs	110	108
Accrued remittances to the Treasury	33	42
Other liabilities	20	20
Total liabilities	<u>103,915</u>	<u>98,839</u>
Capital paid-in	1,393	1,336
Surplus (including accumulated other comprehensive loss of \$5 and \$8 at December 31, 2018 and 2017, respectively)	293	425
Total capital	<u>1,686</u>	<u>1,761</u>
Total liabilities and capital	<u>\$ 105,601</u>	<u>\$ 100,600</u>

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

Statements of Operations

For the years ended December 31, 2018 and December 31, 2017
(in millions)

		2018	2017
<u>INTEREST INCOME</u>			
System Open Market Account:	Note 5		
Treasury securities, net		1,206	1,346
Government-sponsored enterprise debt securities, net		3	9
Federal agency and government-sponsored enterprise mortgage-backed securities, net		947	1,028
Foreign currency denominated investments, net		(1)	(1)
Central bank liquidity swaps		1	-
Total interest income		<u>2,156</u>	<u>2,382</u>
<u>INTEREST EXPENSE</u>			
System Open Market Account:	Note 5		
Securities sold under agreements to repurchase		88	69
Deposits:			
Depository institutions and others		538	307
Total interest expense		<u>626</u>	<u>376</u>
Net interest income		<u>1,530</u>	<u>2,006</u>
<u>OTHER ITEMS OF INCOME (LOSS)</u>			
System Open Market Account:	Note 5		
Foreign currency translation (losses) gains, net		(16)	83
Other		-	1
Compensation received for service costs provided		16	12
Reimbursable services to government agencies		38	47
Other		19	19
Total other items of income		<u>57</u>	<u>162</u>
<u>OPERATING EXPENSES</u>			
Salaries and benefits		183	184
Occupancy		32	32
Equipment		10	12
Other		20	11
Assessments:			
Board of Governors operating expenses and currency costs		71	63
Bureau of Consumer Financial Protection		14	25
Total operating expenses		<u>330</u>	<u>327</u>
Net income before providing for remittances to the Treasury		1,257	1,841
Earnings remittances to the Treasury	Note 3n	<u>1,350</u>	<u>1,810</u>
Net (loss) income after providing for remittances to the Treasury		<u>(93)</u>	<u>31</u>
Change in prior service costs and actuarial gains (losses) related to benefit plans	Notes 9,10	3	(6)
Total other comprehensive income (loss)		<u>3</u>	<u>(6)</u>
Comprehensive (loss) income		<u>\$ (90)</u>	<u>\$ 25</u>

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

Statements of Changes in Capital

For the years ended December 31, 2018 and December 31, 2017

(in millions, except share data)

			Surplus		
			Accumulated		
			other		
			comprehensive		
			loss		
	Capital paid-in	Net income retained		Total surplus	Total capital
Balance at December 31, 2016 (26,395,986 shares)	\$ 1,320	\$ 435	\$ (2)	\$ 433	\$ 1,753
Net change in capital stock issued (318,646 shares)	16	-	-	-	16
Comprehensive income:					
Net income	-	31	-	31	31
Other comprehensive loss	-	-	(6)	(6)	(6)
Dividends on capital stock	-	(33)	-	(33)	(33)
Net change in capital	16	(2)	(6)	(8)	8
Balance at December 31, 2017 (26,714,632 shares)	\$ 1,336	\$ 433	\$ (8)	\$ 425	\$ 1,761
Net change in capital stock issued (1,138,177 shares)	57	-	-	-	57
Comprehensive income:					
Net loss	-	(93)	-	(93)	(93)
Other comprehensive income	-	-	3	3	3
Dividends on capital stock	-	(42)	-	(42)	(42)
Net change in capital	57	(135)	3	(132)	(75)
Balance at December 31, 2018 (27,852,809 shares)	\$ 1,393	\$ 298	\$ (5)	\$ 293	\$ 1,686

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

Federal Reserve Bank of Boston

Notes to Financial Statements

(1) STRUCTURE

The Federal Reserve Bank of Boston (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 First Federal Reserve District, which includes the states of Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, and a portion of the state of Connecticut.

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 Federal Reserve Bank of New York (FRBNY), 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 FRBNY.

The FOMC, in conducting monetary policy, establishes policy regarding domestic open market operations and oversees these operations. The FOMC has selected the FRBNY to execute open market transactions for the System Open Market Account (SOMA) as provided in its annual authorization. The FOMC authorizes and directs the FRBNY 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 FRBNY holds the resulting securities and agreements in a portfolio known as the SOMA. The FRBNY is authorized and directed to lend the Treasury securities and GSE debt securities that are held in the SOMA.

Federal Reserve Bank of Boston

Notes to Financial Statements

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 FRBNY 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 FRBNY holds these securities and agreements in the SOMA. The FOMC also authorized and directed the FRBNY 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 FRBNY 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 FRBNY holds amounts outstanding under these liquidity swap lines in the SOMA. These liquidity swap lines are subject to annual review and approval by the FOMC.

The FOMC has authorized and directed the FRBNY 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 Financial Support Office and Centralized Accounting Technology 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 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

Federal Reserve Bank of Boston

Notes to Financial Statements

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 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 Statements of Condition, Operations, and Changes in Capital, and the accompanying notes to the 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 financial statements highlight those areas where FAM is consistent with GAAP.

Preparing the 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 financial statements, and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates.

Certain amounts relating to the prior year have been reclassified in the Statements of Condition to conform to the current year presentation. \$262 million previously reported as "Liabilities and Capital: Deposits: Depository Institutions" as of December 31, 2017 have been reclassified as "Liabilities and Capital: Deposits: Other Deposits".

Significant accounts and accounting policies are explained below.

a. Consolidation

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 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.

Federal Reserve Bank of Boston

Notes to Financial Statements

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 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 FRBNY 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 which 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 FRBNY and counterparty. The collateral pledged must exceed the principal amount of the transaction by a margin determined by the FRBNY for each class and maturity of acceptable collateral. Collateral designated by the FRBNY as acceptable under repurchase agreements primarily includes Treasury securities (including Treasury Inflation-Protected Securities, Separate Trading of Registered Interest and Principal of Securities 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 Statements of Condition. Interest income is reported as a component of "System Open Market Account: Securities purchased under agreements to resell" in the Statements of Operations.

The FRBNY 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

Federal Reserve Bank of Boston

Notes to Financial Statements

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 Statements of Condition. Interest expense is reported as a component of “System Open Market Account: Securities sold under agreements to repurchase” in the 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 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 FRBNY. The FRBNY charges the primary dealer a fee for borrowing securities, and these fees are reported as a component of “Other items of income (loss): System Open Market Account: Other” in the 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, federal agency and GSE MBS, and foreign currency denominated investments included in the SOMA is recorded when earned and includes amortization of premiums and accretion of discounts using the effective interest method. Interest income on federal agency and GSE MBS also includes 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 Statements of Condition and interest income on those securities is reported net of the amortization of premiums and accretion of discounts in the Statements of Operations.

In addition to outright purchases of federal agency and GSE MBS that are held in the SOMA, the FRBNY 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, 2018 and 2017, the FRBNY executed dollar rolls to facilitate settlement of outstanding purchases of federal agency and GSE MBS. The FRBNY 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 “Other items of income (loss): System Open Market Account: Federal agency and government-sponsored enterprise mortgage-backed securities (losses) gains, net” in the Statements of Operations.

Federal Reserve Bank of Boston

Notes to Financial Statements

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 Statements of Operations. Foreign currency translation gains and losses that result from the daily revaluation of foreign currency denominated investments are reported as “Other items of income (loss): System Open Market Account: Foreign currency translation (losses) gains, net” in the Statements of Operations.

Because the FRBNY 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 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.

g. Central Bank Liquidity Swaps

Central bank liquidity swaps, which are transacted between the FRBNY 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 FRBNY in exchange for U.S. dollars at the prevailing market exchange rate. Concurrent with this transaction, the FRBNY and the foreign central bank agree to a second transaction that obligates the foreign central bank to return the U.S. dollars and the FRBNY 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 FRBNY acquires are reported as “System Open Market Account: Central bank liquidity swaps” in the 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 FRBNY 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 Statements of Operations.

Foreign currency liquidity swaps

Foreign currency liquidity swap transactions involve the transfer by the FRBNY, 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 FRBNY receives are recorded as a liability.

Federal Reserve Bank of Boston

Notes to Financial Statements

h. 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 three to ten 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.

i. 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 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.

j. 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 securities pledged as collateral under 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 Statements of Condition represents the Bank's Federal Reserve notes outstanding, reduced by the Bank's currency holdings of \$5,686 million and \$6,032 million at December 31, 2018 and 2017, respectively.

Federal Reserve Bank of Boston

Notes to Financial Statements

At December 31, 2018 and 2017, all Federal Reserve notes outstanding, net, were fully collateralized. At December 31, 2018 and 2017, all gold certificates, all SDR certificates, and \$1,655 billion and \$1,554 billion, respectively, of domestic securities held in the SOMA were pledged as collateral. At December 31, 2018 and 2017, no investments denominated in foreign currencies were pledged as collateral.

k. 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 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 deposits held by the Reserve Banks under the TDF is accrued daily at the appropriate rate. Interest payable is reported as a component of "Interest payable to depository institutions and others" in the Statements of Condition. There were no deposits held by the Bank under the TDF at December 31, 2018 and 2017.

Other

Other deposits include the Bank's allocated portion of foreign central bank and foreign government deposits held at the FRBNY, cash collateral, and GSE deposits held by the Bank. Interest payable is reported as a component of "Interest payable to depository institutions and others" in the Statements of Condition.

l. 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 \$10.2 billion and \$10.1 billion for the years ended December 31, 2018 and 2017, 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.

m. Surplus

The Federal Reserve Act limits aggregate Reserve Bank surplus. 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. Effective May 24, 2018, the Economic Growth, Regulatory Relief, and Consumer Protection Act (Economic

Federal Reserve Bank of Boston

Notes to Financial Statements

Growth Act), further reduced the statutory limit on aggregate Reserve Bank surplus from \$7.5 billion to \$6.825 billion. Reserve Bank surplus 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, 2018 and 2017 represents the Bank's allocated portion of surplus.

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

n. 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 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 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 Statements of Operations. The amount due to the Treasury is reported as "Accrued remittances to the Treasury" in the 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 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.

o. 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 depository of the United States Government. By statute, the Treasury has appropriations to pay for these services. During the years ended December 31, 2018 and 2017, the Bank was reimbursed for all services provided to the Treasury as its fiscal agent.

p. Compensation Received for Service Costs Provided

The Federal Reserve Bank of Atlanta has overall responsibility for managing the Reserve Banks' provision of check and ACH services to depository institutions, the FRBNY has overall responsibility for managing the Reserve Banks' provision of Fedwire funds and securities services, 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 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 "Other items of income (loss): Compensation received for service costs provided" in its Statements of Operations.

q. 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

Federal Reserve Bank of Boston

Notes to Financial Statements

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, 2018 and 2017 was 13.31 percent (\$663.0 million) and 12.98 percent (\$646.2 million), respectively. The Bank's assessment for Bureau funding is reported as "Operating expenses: Assessments: Bureau of Consumer Financial Protection" in the Statements of Operations.

r. Taxes

The Reserve Banks are exempt from federal, state, and local taxes, except for taxes on real property. The Bank's real property taxes was \$8 million for each of the years ended December 31, 2018 and 2017, and are reported as a component of "Operating expenses: Occupancy" in the Statements of Operations.

s. 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.

In 2014, the Treasury announced plans to consolidate the provision of substantially all fiscal agent services for the U.S. Treasury at the Federal Reserve Bank of Cleveland, the Federal Reserve Bank of Kansas City, the FRBNY, and the Federal Reserve Bank of St. Louis. The consolidation is expected to be completed in future years.

Note 11 describes the Bank's restructuring initiatives and provides information about the costs and liabilities associated with employee separations and contract terminations. Costs and liabilities associated with enhanced pension benefits in connection with the restructuring activities for all of the Reserve Banks are recorded on the books of the FRBNY.

The Bank had no significant restructuring activities in 2018 and 2017.

t. 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 Financial Accounting Standards Board (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 and is not expected to have a material effect on the Bank's financial statements.

Federal Reserve Bank of Boston

Notes to 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 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. Subsequently, in July 2018, the FASB issued additional related ASUs, ASU 2018-10, *Codification Improvements to Topic 842, Leases* and ASU 2018-11, *Leases (Topic 842) Targeted Improvements*; and in November 2018, ASU 2018-20, *Leases (Topic 842): Narrow-scope Improvements for Lessors*. This lease accounting guidance is effective for the Bank for the year ending December 31, 2020. The Board of Governors is continuing to evaluate the effect of this guidance on the Bank's financial statements, and is considering the information and processes necessary to adopt the guidance.

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. Subsequently, in November 2018, the FASB issued one related ASU, ASU 2018-19, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses*. The update is effective for the Bank for the year ending December 31, 2022, although earlier adoption is permitted, and is not expected to have a material effect on the Bank's 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 is not expected to have a material effect on the Bank's financial statements.

In August 2018, the FASB issued ASU 2018-14, *Retirement Benefits-Defined Benefits Plans-General (Subtopic 715-20)*. This update modifies the disclosure requirements for postretirement plans. The update is effective for the Bank for the year ending December 31, 2021, although earlier adoption is permitted. The Board of Governors is continuing to evaluate the effect of this new guidance on the Bank's financial statements.

In August 2018, the FASB issued ASU 2018-15, *Intangibles-Goodwill and Other-Internal-Use Software (Subtopic 350-40)*. This update aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). This update is effective for the Bank for the year ending December 31, 2021, although earlier adoption is permitted. The Board of Governors plans to early adopt this guidance for the year ending December 31, 2019, and it is not expected to have a material effect on the Bank's 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

Federal Reserve Bank of Boston

Notes to Financial Statements

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 was \$8 million as of December 31, 2018 with a remaining maturity within 15 days. The Bank had no loans outstanding as of December 31, 2017.

At December 31, 2018 and 2017, 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, 2018 and 2017. Interest income attributable to loans to depository institutions was immaterial during the years ended December 31, 2018 and 2017.

(5) SYSTEM OPEN MARKET ACCOUNT

a. Domestic Securities Holdings

The FRBNY 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 period from January 1, 2017 through September 30, 2017, the FRBNY 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 FRBNY 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. Effective 2018, the monthly cap on Treasury redemptions increased in steps of \$6 billion at three-month intervals until it reached \$30 billion per month, and the monthly cap for federal agency and GSE MBS increased in steps of \$4 billion at three-month intervals until it reached \$20 billion per month. The FOMC also anticipates that the caps will remain in place 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 1.910 percent and 1.948 percent at December 31, 2018 and 2017 respectively.

Federal Reserve Bank of Boston

Notes to Financial Statements

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, 2018 and 2017 was as follows (in millions):

2018				
	Par	Unamortized premiums	Unaccreted discounts	Total amortized cost
Treasury securities				
Notes	\$ 26,407	\$ 104	\$ (79)	\$ 26,432
Bonds	16,041	1,673	(171)	17,543
Total Treasury securities	<u>\$ 42,448</u>	<u>\$ 1,777</u>	<u>\$ (250)</u>	<u>\$ 43,975</u>
GSE debt securities	<u>\$ 46</u>	<u>\$ 6</u>	<u>\$ -</u>	<u>\$ 52</u>
Federal agency and GSE MBS	<u>\$ 31,267</u>	<u>\$ 893</u>	<u>\$ (6)</u>	<u>\$ 32,154</u>
2017				
	Par	Unamortized premiums	Unaccreted discounts	Total amortized cost
Treasury securities				
Notes	\$ 31,654	\$ 188	\$ (92)	\$ 31,750
Bonds	16,163	1,862	(175)	17,850
Total Treasury securities	<u>\$ 47,817</u>	<u>\$ 2,050</u>	<u>\$ (267)</u>	<u>\$ 49,600</u>
GSE debt securities	<u>\$ 86</u>	<u>\$ 7</u>	<u>\$ -</u>	<u>\$ 93</u>
Federal agency and GSE MBS	<u>\$ 34,387</u>	<u>\$ 1,036</u>	<u>\$ (7)</u>	<u>\$ 35,416</u>

There were no material transactions related to repurchase agreements during the years ended December 31, 2018 and 2017.

Federal Reserve Bank of Boston

Notes to Financial Statements

During the years ended December 31, 2018 and 2017, the FRBNY 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, 2018 and 2017 was as follows (in millions):

	Allocated to the Bank		Total SOMA	
	2018	2017	2018	2017
<u>Primary dealers and expanded counterparties:</u>				
Contract amount outstanding, end of year	\$ 799	\$ 6,227	\$ 41,848	\$ 319,595
Average daily amount outstanding, during the year	243	3,093	12,552	145,959
Maximum balance outstanding, during the year	6,227	11,505	319,595	468,355
Securities pledged (par value), end of year	811	5,898	42,485	302,690
Securities pledged (fair value), end of year	801	6,236	41,919	320,048
<u>Foreign official and international accounts:</u>				
Contract amount outstanding, end of year	\$ 5,007	\$ 4,761	\$ 262,164	\$ 244,363
Average daily amount outstanding, during the year	4,548	5,066	236,818	241,581
Maximum balance outstanding, during the year	5,106	6,492	262,164	264,290
Securities pledged (par value), end of year	4,997	4,689	261,615	240,660
Securities pledged (fair value), end of year	5,007	4,762	262,184	244,417
Total contract amount outstanding, end of year	<u>\$ 5,806</u>	<u>\$ 10,988</u>	<u>\$ 304,012</u>	<u>\$ 563,958</u>
Supplemental information - interest expense:				
Primary dealers and expanded counterparties	\$ 4	\$ 25	\$ 186	\$ 1,224
Foreign official and international accounts	<u>84</u>	<u>44</u>	<u>4,373</u>	<u>2,141</u>
Total interest expense - securities sold under agreements to repurchase	<u>\$ 88</u>	<u>\$ 69</u>	<u>\$ 4,559</u>	<u>\$ 3,365</u>

Securities pledged as collateral, at December 31, 2018 and 2017, consisted solely of Treasury securities. The contract amount outstanding as of December 31, 2018 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, 2019. The contract amount outstanding as of December 31, 2018 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, 2019.

Federal Reserve Bank of Boston

Notes to Financial Statements

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, 2018 and 2017 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, 2018:							
Treasury securities (par value)	\$ 40	\$ 1,769	\$ 5,543	\$ 18,298	\$ 4,983	\$ 11,815	\$ 42,448
GSE debt securities (par value)	-	1	-	-	-	45	46
Federal agency and GSE MBS (par value) ¹	-	-	-	4	1,198	30,065	31,267
Securities sold under agreements to repurchase (contract amount)	5,806	-	-	-	-	-	5,806
December 31, 2017:							
Treasury securities (par value)	\$ 401	\$ 2,098	\$ 6,146	\$ 20,989	\$ 6,047	\$ 12,136	\$ 47,817
GSE debt securities (par value)	-	-	39	1	-	46	86
Federal agency and GSE MBS (par value) ¹	-	-	-	3	390	33,994	34,387
Securities sold under agreements to repurchase (contract amount)	10,988	-	-	-	-	-	10,988

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 7.0 and 6.9 years as of December 31, 2018 and 2017, respectively.

The amortized cost and par value of Treasury securities that were loaned from the SOMA under securities lending agreements allocated to the Bank and held in the SOMA at December 31, 2018 and 2017 were as follows (in millions):

	Allocated to the Bank		Total SOMA	
	2018	2017	2018	2017
Treasury securities (amortized cost)	\$ 479	\$ 547	\$ 25,102	\$ 28,053
Treasury securities (par value)	473	526	24,761	26,990

Securities pledged as collateral by the counterparties in the securities lending arrangements at December 31, 2018 and 2017 consisted solely of Treasury securities. The securities lending agreements outstanding as of December 31, 2018 had a term of one business day and matured on January 2, 2019.

The FRBNY enters into commitments to buy and sell Treasury securities and records the related securities on a settlement-date basis. As of December 31, 2018, there were no outstanding commitments.

Federal Reserve Bank of Boston

Notes to Financial Statements

The FRBNY 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, 2018, the total purchase price of the federal agency and GSE MBS under outstanding purchase commitments was \$294 million, none of which was related to dollar rolls. The total purchase price of outstanding purchase commitments allocated to the Bank was \$6 million, none of which was related to dollar rolls. These commitments, which had contractual settlement dates extending through January 2019, 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, 2018, 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 FRBNY requires the posting of cash collateral for MBS commitments as part of its risk management practices used to mitigate the counterparty credit risk.

Other liabilities include the FRBNY's accrued interest payable related to repurchase agreements transactions, obligation to return cash margin posted by counterparties as collateral under commitments to purchase and sell federal agency and GSE MBS, and obligations that arise from the failure of a seller to deliver MBS to the FRBNY on the settlement date. Although the FRBNY 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 FRBNY's obligation to pay for the securities when delivered. The amount of other liabilities allocated to the Bank and held in the SOMA at December 31, 2018 and 2017 was as follows (in millions):

	Allocated to the Bank		Total SOMA	
	2018	2017	2018	2017
Other liabilities:				
Accrued interest payable	\$ 1	\$ 1	\$ 25	\$ 63
Cash margin	-	10	8	481
Obligations from MBS transaction fails	-	-	1	14
Total other liabilities	<u>\$ 1</u>	<u>\$ 11</u>	<u>\$ 34</u>	<u>\$ 558</u>

In 2018, the description of the line item "Other liabilities: Other" has been revised to "Other liabilities: Accrued interest payable" in the preceding table to better reflect the nature of the item. The amount related to this line item was not changed from the prior year, only the nomenclature for the line item was revised.

Accrued interest receivable on domestic securities held in the SOMA was \$22,160 million and \$24,655 million as of December 31, 2018 and 2017, respectively, of which \$423 million and \$480 million, respectively, was allocated to the Bank. These amounts are reported as a component of "System Open Market Account: Accrued interest receivable" in the Statements of Condition.

Federal Reserve Bank of Boston

Notes to Financial Statements

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, 2018 and 2017, is summarized as follows (in millions):

	Allocated to the Bank					
	Bills	Notes	Bonds	Total Treasury securities	GSE debt securities	Federal agency and GSE MBS
Balance at December 31, 2016	\$ -	\$ 40,467	\$ 22,602	\$ 63,069	\$ 409	\$ 44,095
Purchases ¹	-	3,411	327	3,738	-	6,905
Sales ¹	-	(2)	(6)	(8)	-	(6)
Realized gains (losses), net ²	-	-	-	-	-	-
Principal payments and maturities	-	(3,713)	(261)	(3,974)	(244)	(6,035)
Amortization of premiums and accretion of discounts, net	-	(80)	(166)	(246)	(2)	(219)
Inflation adjustment on inflation-indexed securities	-	15	39	54	-	-
Annual reallocation adjustment ³	-	(8,348)	(4,685)	(13,033)	(70)	(9,324)
Subtotal of activity	-	(8,717)	(4,752)	(13,469)	(316)	(8,679)
Balance at December 31, 2017	\$ -	\$ 31,750	\$ 17,850	\$ 49,600	\$ 93	\$ 35,416
Purchases ¹	2	3,705	299	4,006	-	2,338
Sales ¹	(1)	(1)	(1)	(3)	-	(5)
Realized gains (losses), net ²	-	-	-	-	-	-
Principal payments and maturities	(1)	(8,376)	(148)	(8,525)	(38)	(4,728)
Amortization of premiums and accretion of discounts, net	-	(56)	(149)	(205)	(1)	(169)
Inflation adjustment on inflation-indexed securities	-	18	46	64	-	-
Annual reallocation adjustment ³	-	(608)	(354)	(962)	(2)	(698)
Subtotal of activity	-	(5,318)	(307)	(5,625)	(41)	(3,262)
Balance at December 31, 2018	\$ -	\$ 26,432	\$ 17,543	\$ 43,975	\$ 52	\$ 32,154
Year-ended December 31, 2017						
Supplemental information - par value of transactions:						
Purchases ⁴	\$ -	\$ 3,420	\$ 329	\$ 3,749	\$ -	\$ 6,701
Sales	-	(2)	(5)	(7)	-	(6)
Year-ended December 31, 2018						
Supplemental information - par value of transactions:						
Purchases ⁴	\$ 2	\$ 3,719	\$ 302	\$ 4,023	\$ -	\$ 2,291
Sales ⁴	(1)	(1)	(1)	(3)	-	(5)

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 3i.

⁴ Includes inflation compensation.

Federal Reserve Bank of Boston

Notes to Financial Statements

	Total SOMA					
	Bills	Notes	Bonds	Total Treasury securities	GSE debt securities	Federal agency and GSE MBS
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	-	-
Subtotal of activity	-	(17,768)	(3,921)	(21,689)	(11,896)	22,697
Balance at December 31, 2017	\$ -	\$ 1,629,571	\$ 916,162	\$ 2,545,733	\$ 4,752	\$ 1,817,700
Purchases ¹	126	192,346	15,560	208,032	-	121,190
Sales ¹	(47)	(49)	(65)	(161)	-	(253)
Realized gains (losses), net ²	-	(1)	6	5	-	(5)
Principal payments and maturities	(79)	(435,970)	(7,731)	(443,780)	(1,982)	(246,316)
Amortization of premiums and accretion of discounts, net	-	(2,929)	(7,781)	(10,710)	(29)	(8,784)
Inflation adjustment on inflation-indexed securities	-	961	2,382	3,343	-	-
Subtotal of activity	-	(245,642)	2,371	(243,271)	(2,011)	(134,168)
Balance at December 31, 2018	\$ -	\$ 1,383,929	\$ 918,533	\$ 2,302,462	\$ 2,741	\$ 1,683,532
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)
Year-ended December 31, 2018						
Supplemental information - par value of transactions:						
Purchases ³	\$ 126	\$ 193,093	\$ 15,713	\$ 208,932	\$ -	\$ 118,762
Sales ³	(47)	(51)	(59)	(157)	-	(251)

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

The FRBNY 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 FRBNY 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, 2018 and 2017, there were no repurchase agreements outstanding and, consequently, no related foreign securities held as collateral.

Federal Reserve Bank of Boston

Notes to Financial Statements

The Bank's allocated share of activity related to foreign currency operations was 4.255 percent and 4.335 percent at December 31, 2018 and 2017, 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, 2018 and 2017 was as follows (in millions):

	Allocated to Bank		Total SOMA	
	2018	2017	2018	2017
Euro:				
Foreign currency deposits	\$ 272	\$ 263	\$ 6,390	\$ 6,070
French government debt instruments	130	134	3,045	3,089
German government debt instruments	61	97	1,440	2,239
Dutch government debt instruments	64	70	1,511	1,626
Japanese yen:				
Foreign currency deposits	310	294	7,286	6,765
Japanese government debt instruments	53	66	1,234	1,527
Total	<u>\$ 890</u>	<u>\$ 924</u>	<u>\$ 20,906</u>	<u>\$ 21,316</u>

Net interest income earned on foreign currency denominated investments for the years ended December 31, 2018 and 2017 was immaterial for the Bank and held in the SOMA as follows (in millions):

	Total SOMA	
	2018	2017
Net interest income:¹		
Euro	\$ (30)	\$ (19)
Japanese yen	1	2
Total net interest income	<u>\$ (29)</u>	<u>\$ (17)</u>

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 \$43 million and \$36 million for the years ended December 31, 2018 and 2017, respectively.

Accrued interest receivable on foreign currency denominated investments, net was \$72 million and \$82 million as of December 31, 2018 and 2017, respectively, of which \$3 million and \$4 million, respectively, was allocated to the Bank. These amounts are reported as a component of "System Open Market Account: Accrued interest receivable" in the Statements of Condition.

Federal Reserve Bank of Boston

Notes to Financial Statements

The remaining maturity distribution of foreign currency denominated investments that were allocated to the Bank at December 31, 2018 and 2017 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	Total
December 31, 2018:						
Euro	\$ 274	\$ 3	\$ 19	\$ 119	\$ 112	\$ 527
Japanese yen	310	4	13	36	-	363
Total	<u>\$ 584</u>	<u>\$ 7</u>	<u>\$ 32</u>	<u>\$ 155</u>	<u>\$ 112</u>	<u>\$ 890</u>
December 31, 2017:						
Euro	\$ 267	\$ 4	\$ 53	\$ 136	\$ 104	\$ 564
Japanese yen	293	3	12	52	-	360
Total	<u>\$ 560</u>	<u>\$ 7</u>	<u>\$ 65</u>	<u>\$ 188</u>	<u>\$ 104</u>	<u>\$ 924</u>

There were no foreign exchange contracts related to foreign currency operations outstanding as of December 31, 2018.

The FRBNY enters into commitments to buy foreign government debt instruments and records the related securities on a settlement-date basis.

As of December 31, 2018, there were no outstanding commitments to purchase foreign government debt instruments. During 2018, there were purchases and maturities of foreign government debt instruments of \$842 million and \$1,734 million, respectively, of which \$36 million and \$74 million, respectively, were allocated to the Bank. There were immaterial sales of foreign government debt instruments in 2018.

In connection with its foreign currency activities, the FRBNY 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 FRBNY 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, 2018 and 2017.

c. Central Bank Liquidity Swaps

U.S. Dollar Liquidity Swaps

The Bank's allocated share of U.S. dollar liquidity swaps was 4.255 percent and 4.335 percent at December 31, 2018 and 2017, respectively.

The total foreign currency held in the SOMA under U.S. dollar liquidity swaps at December 31, 2018 and 2017 was \$4,207 million and \$12,067 million, respectively, of which \$179 million and \$523 million, respectively, was allocated to the Bank.

Federal Reserve Bank of Boston

Notes to Financial Statements

The remaining maturity distribution of U.S. dollar liquidity swaps that were allocated to the Bank at December 31, 2018 and 2017 was as follows (in millions):

	2018	2017
	Within 15 days	Within 15 days
Euro	\$ 179	\$ 516
Japanese yen	-	7
Total	<u>\$ 179</u>	<u>\$ 523</u>

Foreign Currency Liquidity Swaps

At December 31, 2018 and 2017, 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 FASB Accounting Standards Codification (ASC) Topic 820 (ASC 820), *Fair Value Measurement*. 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 Statements of Condition and the changes in cumulative unrealized gains (losses) are not recognized in the 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, 2018 and 2017, 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, 2018 and 2017 (in millions):

	Allocated to the Bank					
	2018			2017		
	Amortized cost	Fair value	Cumulative unrealized gains (losses), net	Amortized cost	Fair value	Cumulative unrealized gains (losses), net
Treasury securities:						
Notes	\$ 26,432	\$ 26,175	\$ (257)	\$ 31,750	\$ 31,652	\$ (98)
Bonds	17,543	18,478	935	17,850	19,649	1,799
Total Treasury securities	43,975	44,653	678	49,600	51,301	1,701
GSE debt securities	52	62	10	93	105	12
Federal agency and GSE MBS	32,154	31,349	(805)	35,416	35,264	(152)
Total domestic SOMA portfolio securities holdings	<u>\$ 76,181</u>	<u>\$ 76,064</u>	<u>\$ (117)</u>	<u>\$ 85,109</u>	<u>\$ 86,670</u>	<u>\$ 1,561</u>
Memorandum - Commitments for:						
Purchases of Treasury securities	\$ -	\$ -	\$ -	\$ 223	\$ 223	\$ -
Purchases of Federal agency and GSE MBS	6	6	-	375	376	1
Sales of Federal agency and GSE MBS	-	-	-	-	-	-

Federal Reserve Bank of Boston

Notes to Financial Statements

	Total SOMA					
	2018			2017		
	Amortized cost	Fair value	Cumulative unrealized gains (losses), net	Amortized cost	Fair value	Cumulative unrealized gains (losses), net
Treasury securities:						
Notes	\$ 1,383,929	\$ 1,370,515	\$ (13,414)	\$ 1,629,571	\$ 1,624,540	\$ (5,031)
Bonds	918,533	967,479	48,946	916,162	1,008,468	92,306
Total Treasury securities	2,302,462	2,337,994	35,532	2,545,733	2,633,008	87,275
GSE debt securities	2,741	3,222	481	4,752	5,383	631
Federal agency and GSE MBS	1,683,532	1,641,381	(42,151)	1,817,700	1,809,918	(7,782)
Total domestic SOMA portfolio securities holdings	\$ 3,988,735	\$ 3,982,597	\$ (6,138)	\$ 4,368,185	\$ 4,448,309	\$ 80,124
Memorandum - Commitments for:						
Purchases of Treasury securities	\$ -	\$ -	\$ -	\$ 11,447	\$ 11,467	\$ 20
Purchases of Federal agency and GSE MBS	294	296	2	19,257	19,285	28
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 pricing services that utilize 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 approximates fair value.

At December 31, 2018 and 2017, the fair value of foreign currency denominated investments held in the SOMA was \$20,957 million and \$21,348 million, respectively, of which \$892 million and \$926 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. Due to the short-term nature of foreign currency deposits, the cost basis is estimated to approximate fair value.

Federal Reserve Bank of Boston

Notes to Financial Statements

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, 2018 and 2017 (in millions):

Distribution of MBS holdings by coupon rate	2018		2017	
	<u>Amortized cost</u>	<u>Fair value</u>	<u>Amortized cost</u>	<u>Fair value</u>
Allocated to the Bank:				
2.0%	\$ 144	\$ 139	\$ 175	\$ 170
2.5%	1,774	1,710	2,152	2,111
3.0%	11,494	11,026	13,135	12,878
3.5%	11,175	10,913	12,286	12,280
4.0%	5,683	5,616	5,647	5,687
4.5%	1,327	1,367	1,326	1,401
5.0%	445	461	552	585
5.5%	97	101	123	131
6.0%	13	14	17	18
6.5%	2	2	3	3
Total	<u>\$ 32,154</u>	<u>\$ 31,349</u>	<u>\$ 35,416</u>	<u>\$ 35,264</u>
Total SOMA:				
2.0%	\$ 7,532	\$ 7,296	\$ 8,968	\$ 8,739
2.5%	92,877	89,530	110,452	108,371
3.0%	601,805	577,317	674,138	660,939
3.5%	585,114	571,406	630,590	630,245
4.0%	297,546	294,038	289,819	291,868
4.5%	69,474	71,559	68,069	71,896
5.0%	23,296	24,128	28,352	30,048
5.5%	5,097	5,277	6,318	6,739
6.0%	691	722	870	939
6.5%	100	108	124	134
Total	<u>\$ 1,683,532</u>	<u>\$ 1,641,381</u>	<u>\$ 1,817,700</u>	<u>\$ 1,809,918</u>

Federal Reserve Bank of Boston

Notes to Financial Statements

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, 2018 and 2017 (in millions):

	Allocated to Bank			
	2018		2017	
	Realized gains (losses), 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	\$ -	\$ (1,010)	\$ -	\$ 413
GSE debt securities	-	(3)	-	(3)
Federal agency and GSE MBS	-	(672)	-	56
Total	\$ -	\$ (1,685)	\$ -	\$ 466

	Total SOMA			
	2018		2017	
	Realized gains (losses), 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	\$ 5	\$ (51,743)	\$ 28	\$ 13,991
GSE debt securities	-	(150)	-	(163)
Federal agency and GSE MBS	(3)	(34,369)	8	(263)
Total	\$ 2	\$ (86,262)	\$ 36	\$ 13,565

¹ Realized gains (losses) for Treasury securities are reported in "Other items of income (loss): System Open Market Account: Treasury securities gains (losses), net" in the Statements of Operations.

² Realized gains (losses) for federal agency and GSE MBS are reported in "Other items of income (loss): System Open Market Account: Federal agency and government-sponsored enterprise mortgage-backed securities gains (losses), net" in the 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 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 gain of \$19 million and a loss of \$36 million for the years ended December 31, 2018 and 2017, respectively, of which a gain of \$787 thousand and a loss of \$2 million, respectively, were allocated to the Bank. Realized gains, net related to foreign currency denominated investments was immaterial for the years ended December 31, 2018 and 2017.

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.

Federal Reserve Bank of Boston

Notes to Financial Statements

- 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.

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) BANK PREMISES, EQUIPMENT, AND SOFTWARE

Bank premises and equipment at December 31, 2018 and 2017 were as follows (in millions):

	2018	2017
Bank premises and equipment:		
Land and land improvements	\$ 27	\$ 27
Buildings	198	200
Building machinery and equipment	46	46
Construction in progress	5	-
Furniture and equipment	40	64
Subtotal	316	337
Accumulated depreciation	(197)	(208)
Bank premises and equipment, net	<u>\$ 119</u>	<u>\$ 129</u>
Depreciation expense, for the years ended December 31	<u>\$ 15</u>	<u>\$ 16</u>

Federal Reserve Bank of Boston

Notes to Financial Statements

The Bank leases space to outside tenants with remaining lease terms ranging from 1 to 9 years. Rental income from such leases were \$15 million and \$14 million for the years ended December 31, 2018 and 2017, respectively, and is reported as a component of “Other items of income (loss): Other” in the Statements of Operations. Future minimum lease payments that the Bank will receive under non-cancelable lease agreements in existence at December 31, 2018, are as follows (in millions):

2019	\$	15
2020		14
2021		13
2022		13
2023		13
Thereafter		28
Total	\$	<u>96</u>

The Bank had capitalized software assets, net of amortization, of \$12 million and \$18 million at December 31, 2018 and 2017, respectively. Amortization expense was \$3 million and \$5 million for the years ended December 31, 2018 and 2017, respectively. Capitalized software assets are reported as a component of “Other assets” in the Statements of Condition and the related amortization is reported as a component of “Operating expenses: Other” in the Statements of Operations.

(7) 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, 2018, the Bank was obligated under non-cancelable leases for premises with remaining terms ranging from 3 to approximately 6 years. 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), was not material for the years ended December 31, 2018 and 2017.

Future minimum lease payments under non-cancelable operating leases with remaining terms of one year or more, at December 31, 2018, were not material.

At December 31, 2018, 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, 2018 and 2017.

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.

Federal Reserve Bank of Boston

Notes to Financial Statements

(8) 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, eligible Bureau employees may participate in the System Plan and, during the years ended December 31, 2018 and 2017, 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 FRBNY, 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 cost related to the BEP and SERP as a component of “Operating expenses: Salaries and benefits” in its Statements of Operations and reports the net liability as a component of “Accrued benefit costs” in its Statements of Condition.

The Bank’s projected benefit obligation, funded status, and net pension expenses for the BEP and the SERP at December 31, 2018 and 2017, and for the years then ended, were immaterial.

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 \$8 million for each of the years ended December 31, 2018 and 2017 and are reported as a component of “Operating expenses: Salaries and benefits” in the Statements of Operations.

(9) 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.

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

Federal Reserve Bank of Boston

Notes to Financial Statements

Following is a reconciliation of the beginning and ending balances of the benefit obligation for the years ended December 31, 2018 and 2017 (in millions):

	2018	2017
Accumulated postretirement benefit obligation at January 1	\$ 84.6	\$ 76.5
Service cost benefits earned during the period	3.1	2.6
Interest cost on accumulated benefit obligation	3.0	3.1
Net actuarial (gain) loss	(3.8)	6.2
Contributions by plan participants	2.1	2.0
Benefits paid	(6.1)	(5.8)
Medicare Part D subsidies	0.1	-
Accumulated postretirement benefit obligation at December 31	<u>\$ 83.0</u>	<u>\$ 84.6</u>

At December 31, 2018 and 2017, the weighted-average discount rate assumptions used in developing the postretirement benefit obligation were 4.26 percent and 3.59 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, 2018 and 2017 (in millions):

	2018	2017
Fair value of plan assets at January 1	\$ -	\$ -
Contributions by the employer	3.9	3.8
Contributions by plan participants	2.1	2.0
Benefits paid	(6.1)	(5.8)
Medicare Part D subsidies	0.1	-
Fair value of plan assets at December 31	<u>\$ -</u>	<u>\$ -</u>
Unfunded obligation and accrued postretirement benefit cost	<u>\$ 83.0</u>	<u>\$ 84.6</u>

Amounts included in accumulated other comprehensive loss are shown below:

Prior service cost	\$ (1.5)	\$ (2.0)
Net actuarial loss	(3.7)	(7.4)
Deferred curtailment gain	-	1.3
Total accumulated other comprehensive loss	<u>\$ (5.2)</u>	<u>\$ (8.1)</u>

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

Federal Reserve Bank of Boston

Notes to Financial Statements

For measurement purposes, the assumed health-care cost trend rates at December 31, 2018 and 2017 are provided in the table below:

	2018	2017
Health-care cost trend rate assumed for next year	6.25%	6.20%
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	2025	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, 2018 (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	\$ 1.2	\$ (1.0)
Effect on accumulated postretirement benefit obligation	11.7	(9.7)

The following is a summary of the components of net periodic postretirement benefit expense for the years ended December 31, 2018 and 2017 (in millions):

	2018	2017
Service cost-benefits earned during the period	\$ 3.1	\$ 2.6
Interest cost on accumulated benefit obligation	3.0	3.2
Amortization of prior service cost	0.4	0.5
Total periodic expense	6.5	6.3
Curtailment gain	(1.3)	-
Net periodic postretirement benefit expense	<u>\$ 5.2</u>	<u>\$ 6.3</u>

Estimated amounts that will be amortized from accumulated other comprehensive loss into net periodic postretirement benefit expense in 2019 are shown below:

Prior service cost	\$ 0.5
Net actuarial loss	-
Total	<u>\$ 0.5</u>

Net postretirement benefit costs are actuarially determined using a January 1 measurement date. At January 1, 2018 and 2017, the weighted-average discount rate assumptions used to determine net periodic postretirement benefit costs were 3.59 percent and 4.07 percent, respectively.

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

A deferred curtailment gain was recorded in 2014 as a component of accumulated other comprehensive loss; the gain was recognized in net income during the year ended December 31, 2018.

Federal Reserve Bank of Boston

Notes to Financial Statements

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 (gain) loss in the accumulated postretirement benefit obligation and net periodic postretirement benefit expense.

Federal Medicare Part D subsidy receipts were \$31 thousand and \$88 thousand in the years ended December 31, 2018 and 2017, respectively. Expected receipts in 2019, related to benefits paid in the years ended December 31, 2018 and 2017, are \$29 thousand and \$0, respectively.

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

	Without subsidy	With subsidy
2019	\$ 3.9	\$ 3.9
2020	4.4	4.4
2021	4.6	4.5
2022	4.8	4.8
2023	5.0	4.9
2024 - 2028	27.3	26.9
Total	<u>\$ 50.0</u>	<u>\$ 49.4</u>

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, 2018 and 2017 were \$3.6 million and \$4.3 million, respectively. This cost is included as a component of "Accrued benefit costs" in the Statements of Condition. Net periodic postemployment benefit (credit) expense included in 2018 and 2017 operating expenses were (\$53 thousand) and \$400 thousand, respectively, and are recorded as a component of "Operating expenses: Salaries and benefits" in the Statements of Operations.

Federal Reserve Bank of Boston

Notes to Financial Statements

(10) ACCUMULATED OTHER COMPREHENSIVE INCOME AND OTHER COMPREHENSIVE INCOME

Following is a reconciliation of beginning and ending balances of accumulated other comprehensive loss as of December 31, 2018 and 2017 (in millions):

	2018	2017
	Amount related to postretirement benefits other than retirement plans	Amount related to postretirement benefits other than retirement plans
Balance at January 1	\$ (8)	\$ (2)
Change in funded status of benefit plans:		
Change in prior service costs related to benefit plans	-	-
Net actuarial gain (loss) arising during the year	4	(6)
Amortization of deferred curtailment gain	(1)	-
Change in actuarial gain (loss) related to benefit plans	3	(6)
Change in funded status of benefit plans - other comprehensive income (loss)	3	(6)
Balance at December 31	<u>\$ (5)</u>	<u>\$ (8)</u>

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

(11) BUSINESS RESTRUCTURING CHARGES

The Bank had no significant business restructuring activities in 2018 and 2017. The remaining liability balance associated with the Treasury's announcement in 2014 and set up during that year was immaterial as of December 31, 2018 and 2017. In 2014, the Treasury announced a plan to consolidate the number of Reserve Banks providing fiscal agent services to the Treasury from 10 to 4. As a result of this initiative, the Invoice Processing Platform and the Treasury Cash Management System operations performed by the Federal Reserve Bank of Boston were transitioned to the Federal Reserve Bank of St. Louis and the Federal Reserve Bank of Cleveland in 2017 and 2016, respectively. The Stored Value Card operations performed by the Federal Reserve Bank of Boston will be transitioned to the Federal Reserve Bank of Kansas City in future years.

(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 the Bank's allocated portion of the aggregate surplus limitation.

For the year ending December 31, 2017 and through February 8, 2018, the aggregate surplus limitation was \$10 billion. On February 9, 2018, the Budget Act reduced the aggregate surplus limitation 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, and the Bank's share of this remittance was \$106 million. After making the transfer required by the Budget Act, the Bank's allocated portion of the aggregate \$7.5 billion surplus was \$319 million.

Federal Reserve Bank of Boston

Notes to Financial Statements

On May 24, 2018, the Economic Growth Act reduced the aggregate surplus limitation to \$6.825 billion, which required the Reserve Banks to make a lump-sum payment to the Treasury in the amount of \$675 million; the payment was remitted to the Treasury on June 21, 2018, and the Bank's share of this remittance was \$29 million. After making the transfer required by the Economic Growth Act, the Bank's allocated portion of the aggregate \$6.825 billion surplus was \$290 million.

The following table presents the distribution of the Bank's and System total comprehensive income for the years ended December 31, 2018 and 2017 (in millions):

	Bank's portion		System total	
	2018	2017	2018	2017
Net income before providing for remittances to Treasury	\$ 1,257	\$ 1,841	\$ 63,101	\$ 80,692
Other comprehensive income (loss)	3	(6)	42	651
Comprehensive income - available for distribution	<u>\$ 1,260</u>	<u>\$ 1,835</u>	<u>\$ 63,143</u>	<u>\$ 81,343</u>
Distribution of comprehensive income:				
Transfer from surplus	\$ (132)	\$ (8)	\$ (3,175)	\$ -
Dividends	42	33	999	784
Earnings remittances to the Treasury ¹	<u>1,350</u>	<u>1,810</u>	<u>65,319</u>	<u>80,559</u>
Total distribution of comprehensive income	<u>\$ 1,260</u>	<u>\$ 1,835</u>	<u>\$ 63,143</u>	<u>\$ 81,343</u>

¹ Inclusive of lump-sum payments required by legislation enacted during the year ended December 31, 2018.

(13) SUBSEQUENT EVENTS

There were no subsequent events that required adjustments to or disclosures in the financial statements as of December 31, 2018. Subsequent events were evaluated through March 8, 2019, which is the date that the financial statements were available to be issued.