# GOLDMAN SACHS BANK USA AND SUBSIDIARIES

Annual Report
for the year ended December 31, 2016

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# PART I

## Introduction

Goldman Sachs Bank USA, together with its consolidated subsidiaries (collectively, the Bank), is a New York State-chartered bank and a member of the Federal Reserve System. The Bank is supervised and regulated by the Board of Governors of the Federal Reserve System (Federal Reserve Board), the New York State Department of Financial Services (NYDFS) and the U.S. Consumer Financial Protection Bureau (CFPB), and is a member of the Federal Deposit Insurance Corporation (FDIC). The Bank's deposits are insured by the FDIC up to the maximum amount provided by law. The Bank is registered with the U.S. Commodity Futures Trading Commission (CFTC) as a swap dealer and as a government securities dealer subject to the rules and regulations of the U.S. Department of the Treasury (Treasury).

The Bank's principal office is located in New York, New York. The Bank operates one domestic branch located in Salt Lake City, Utah, which is regulated by the Utah Department of Financial Institutions. The Bank also has a branch in London, United Kingdom, which is regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

The Bank is a wholly-owned subsidiary of The Goldman Sachs Group, Inc. (Group Inc.). Group Inc. is a bank holding company under the U.S. Bank Holding Company Act of 1956 (BHC Act), a financial holding company under amendments to the BHC Act effected by the U.S. Gramm-Leach-Bliley Act of 1999, and is subject to supervision and examination by the Federal Reserve Board.

References to "this Annual Report" are to the Annual Report of the Bank for the year ended December 31, 2016. All references to 2016 and 2015 refer to our years ended, or the dates, as the context requires, December 31, 2016 and December 31, 2015, respectively. This Annual Report is dated March 20, 2017. All references in this document to the date of this Annual Report are to March 20, 2017.

This Annual Report may be amended and/or supplemented from time to time, including by subsequent reports of the Bank. In this Annual Report, when we use the terms "the Bank," "we," "us," and "our," we mean Goldman Sachs Bank USA and its consolidated subsidiaries. When we use the term "GS Group," we are referring to Group Inc. and its consolidated subsidiaries, including the Bank.

## Business

The Bank's primary activities include lending, engaging in derivatives transactions and deposit taking. The Bank is a lender to private wealth management clients of Goldman, Sachs & Co. (GS&Co.), to institutional and corporate clients and to retail customers. The Bank enters into interest rate, credit, currency, commodity and equity derivatives and related products for the purpose of market making and risk management. The Bank accepts deposits from private wealth management clients, online retail customers and through deposit sweep programs and issues brokered certificates of deposit. As of December 31, 2016, the Bank had total assets of approximately $159.11 billion, total commitments to extend credit of approximately $97.87 billion and total deposits of approximately $114.99 billion.

### Lending

The Bank provides credit to private wealth clients primarily through secured loans and to institutional and corporate clients through loan facilities. The Bank provides loans, including residential and commercial mortgage loans, to private wealth clients and provides loans and loan commitments to institutional and corporate clients. The Bank engages in other lending, including providing unsecured personal loans directly to individuals through its online lending platform, Marcus by Goldman Sachs™ (Marcus), and providing residential and commercial mortgage loans and other loans to other clients and counterparties.

See "Supplemental Financial Information — Selected Loan Data" in Part III of this Annual Report for information about amounts, maturities and interest rates of the Bank's loans.

**Private Bank Lending.** The Bank provides loans, primarily on a secured basis, to private wealth management clients. The Bank works with clients in order to finance private asset purchases and strategic investments, bridge cash flow timing gaps and leverage existing holdings to generate liquidity. The Bank also provides loans to GS Group employees as part of its private bank lending activities.

The Bank works closely with GS Group's private wealth management business to assess opportunities to lend to its clients. The Bank underwrites, structures and negotiates pricing for these loans based on the Bank's underwriting guidelines.

**Corporate Lending.** The Bank offers term loans, revolving lines of credit, letter of credit facilities and bridge loans to institutional and corporate clients. The proceeds from these forms of lending are principally used by borrowers for operating, liquidity and general corporate purposes, or in connection with acquisitions. The Bank may elect to syndicate portions of these loans either directly or through its affiliates or may retain the loans.

The Bank is the primary lending entity of GS Group. Many of the Bank's lending opportunities arise from referrals made by its affiliates. Accordingly, the volume of corporate loans made by the Bank to corporate borrowers largely corresponds to levels of loan demand within GS Group. The loans are all subject to the Bank's underwriting criteria and the Bank compensates its affiliates for these referrals as it would a third party, consistent with applicable banking law and regulation. In addition, the Bank may be compensated by Group Inc. or its affiliates for participation in certain lending activities.

The type of corporate loan extended to a borrower varies and is dependent upon the borrower's needs and capital structure and the then-current state of the credit markets. In each case, the Bank underwrites the loan; however, the Bank may rely on services provided by employees of affiliates to assist in coordinating the underwriting process.

The Bank also provides commitments to extend credit. These commitments are agreements to lend with fixed termination dates. The total commitment amount does not necessarily reflect actual future cash flows because the Bank may syndicate all or portions of these commitments. In addition, commitments can expire unused or be reduced or cancelled at the counterparty's request.

See Note 16 to the consolidated financial statements in Part III of this Annual Report for further information about the Bank's commitments to extend credit.

**Other Lending.** The Bank (i) originates and purchases loans backed by commercial real estate, (ii) purchases loans backed by residential real estate, which includes loans extended by the Bank to clients who warehouse assets that are directly or indirectly secured by residential real estate and (iii) lends to clients who warehouse assets that are directly or indirectly secured by consumer loans, including auto loans and private student loans, and other assets, including unsecured consumer receivables. During 2016, the Bank established Marcus, through which it originates unsecured, fixed-rate installment loans directly to individuals.

In the future, the Bank may continue to expand its lending activities, including its direct consumer-related lending activities. See "Risk Factors — The Bank faces enhanced risks as new business initiatives lead it and its affiliates to transact with a broader array of clients and counterparties and expose the Bank and its affiliates to new assets, activities and markets" for a discussion of how engaging in consumer-related lending could impact the Bank.

See Notes 8 and 9 to the consolidated financial statements in Part III of this Annual Report for further information about the Bank's lending activities.

### Derivatives Activities

Derivatives are instruments that derive their value from underlying asset prices, indices, reference rates and other inputs, or a combination of these factors. Derivative transactions provide liquidity to clients and facilitate the active management of risk exposures, including market, credit and other risks. The Bank acts as a market maker in interest rate, credit, currency and other derivatives in order to facilitate customer transactions in such products and also uses derivatives to manage its own risk exposure as part of the Bank's risk management processes.

The Bank enters into various types of derivatives, including (i) swaps (which are agreements to exchange cash flows, such as currency or interest payment streams), (ii) options (contracts which provide the right but not the obligation to buy or sell a certain financial instrument, currency or commodity on a specified date in the future at a certain price) and (iii) futures and forwards (which are contracts to purchase or sell a financial instrument, currency or commodity in the future).

Derivatives may be traded on an exchange (exchange-traded) or they may be privately negotiated contracts, which are referred to as over-the-counter (OTC) derivatives. Certain of these OTC derivatives are cleared and settled through central clearing counterparties, while others are bilateral contracts between two counterparties.

The Bank has entered into derivatives transactions with both affiliates and unaffiliated third parties. Affiliate trades are part of Group Inc.'s centralized hedging and risk management processes and practices and are designed to encourage efficient liquidity and capital usage across GS Group and to manage counterparty and market risks effectively.

See Note 7 to the consolidated financial statements in Part III of this Annual Report for further information about the Bank's derivative products and activities.

### Deposit Taking

Deposits are the Bank's primary source of funding to support its revenue-generating assets. The Bank raises savings and demand deposits through deposit sweep programs with affiliates and third-party broker-dealers. The Bank also raises time deposits, primarily brokered certificates of deposit (CDs), substantially all of which are in FDIC-insurable amounts and distributed through third-party broker-dealers and GS&Co.

The Bank also accepts deposits directly from individuals through its online deposit platform, which was acquired from GE Capital Bank in April 2016. The Bank's online deposits are used to finance, among other things, lending activity and other inventory.

For additional information about the Bank's deposits, including the sources and types of the Bank's deposits, see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Balance Sheet and Funding Sources — Funding Sources — Deposits" in Part II of this Annual Report and Note 13 to the consolidated financial statements in Part III of this Annual Report.

### Other Activities

The Bank also engages in agency lending, securities financing transactions, and other trading, market making and risk management activities.

See Notes 10 and 16 to the consolidated financial statements in Part III of this Annual Report for further information about the Bank's securities financings and agency lending, respectively.

### The Bank's Relationship with Group Inc. and its Affiliates

The Bank is a wholly-owned insured depository institution subsidiary of Group Inc. The Bank uses and benefits from business relationships, certain processes, support systems and infrastructure and financial support of Group Inc. and its subsidiaries.

The Bank also benefits from its affiliates' access to third-party vendors, experience and knowledge, and services provided to the Bank by employees of affiliates under a Master Services Agreement supplemented by Service Level Agreements (collectively, the Master Services Agreement). See "Risk Factors — The Bank is a wholly-owned subsidiary of Group Inc. and is dependent on Group Inc. and certain of its affiliates for client business, various services and capital" and Note 18 to the consolidated financial statements in Part III of this Annual Report.

**Business Relationships.** Affiliates of the Bank are sources of business for the Bank's lending and other business activities and often are counterparties to derivatives transactions with the Bank. See " — Lending — Private Bank Lending," " — Lending — Corporate Lending" and "Derivatives Activities" for additional information.

**Support Services.** The Bank receives operational, technical and administrative support from Group Inc. and its affiliates pursuant to the Master Services Agreement. All operational, technical and administrative support services the Bank receives from its affiliates are overseen by Bank employees. Support services include trade execution, loan origination and servicing, operational, infrastructure and technical services, control and other support services.

**Funding Sources.** The Bank raises certain deposit funding through its affiliates. A portion of the Bank's deposits are overnight deposit sweeps sourced from GS&Co. and are comprised of deposits from private wealth management clients. In addition, certain affiliates place cash on deposit with the Bank.

The Bank has access to funding facilities from Group Inc. See Note 14 to the consolidated financial statements in Part III of this Annual Report for further information about funding facilities from Group Inc.

The Bank also receives secured funding from its affiliates. In particular, it enters into collateralized financings, such as repurchase agreements, with Group Inc. and its affiliates. See “Other Activities” above. See also “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Balance Sheet and Funding Sources — Funding Sources” in Part II of this Annual Report and Note 10 to the consolidated financial statements in Part III of this Annual Report.

**Group Inc. General Guarantee.** In December 2008, Group Inc. agreed to generally guarantee the payment obligations of the Bank (General Guarantee Agreement), subject to certain limitations. The General Guarantee Agreement was amended and restated as of November 21, 2011. Subject to the terms and conditions of the General Guarantee Agreement, Group Inc. unconditionally and irrevocably guarantees complete payment of all payment obligations of the Bank when due, other than non-recourse payment obligations and payment obligations arising in connection with any Bank CD (unless applicable governing documents of the certificate of deposit expressly state otherwise). In the future, certain of the Bank’s other debtholders may be deemed to have waived and may not be entitled to the benefit of the General Guarantee Agreement.

Furthermore, Federal Reserve Board regulation requires Group Inc., as a bank holding company, to act as a source of strength to the Bank, as its bank subsidiary, and to commit capital and financial resources to support the Bank.

All of the Bank’s relationships and transactions with affiliates are closely monitored in accordance with applicable laws and regulations, including, without limitation, Sections 23A and 23B of the Federal Reserve Act and the Federal Reserve Board’s Regulation W. See Note 18 to the consolidated financial statements in Part III of this Annual Report for further information about the Bank’s transactions with related parties.

## Employees

As of December 2016, the Bank had 861 direct employees, including consultants and temporary staff, and 253 dual employees who perform services for both the Bank and its affiliates pursuant to an Employee Sharing Agreement. Employees of affiliates also provide services to the Bank under the Master Services Agreement.

## Competition

The financial services industry is intensely competitive. The Bank’s competitors are other institutions that provide deposit and client execution services; originate bank, personal and mortgage loans; enter into interest rate, credit, currency, commodity and equity derivatives; and engage in leveraged and structured finance and agency lending, as well as institutions that make markets in derivatives, loans and other financial assets. The Bank competes with institutions on a regional and product basis. The Bank’s competition is based on a number of factors, including transaction execution, products and services, innovation, reputation and price.

## Regulation

The Bank is supervised and regulated by the Federal Reserve Board, the NYDFS, the CFPB and the FDIC and is also regulated by the CFTC and Treasury in respect of its swap dealer and government securities dealer activities, respectively. Bank branches and other offices are also subject to local regulation. The Bank’s consumer-related activities are subject to extensive regulation and supervision by federal and state (and, where applicable, foreign) regulators with regard to consumer protection laws, including laws relating to fair lending and other practices in connection with marketing and providing consumer financial products.

As a participant in the banking industry, the Bank is subject to extensive regulation of, among other things, its lending and deposit-taking activities, investing activities, capital adequacy, liquidity, funding, inter-affiliate transactions, the establishment of new businesses and implementation of new activities and the formation of new subsidiaries by both federal and state regulators and by foreign regulators in jurisdictions in which the Bank operates. The Federal Reserve Board, the NYDFS and the CFPB possess significant discretion in connection with their supervisory, enforcement and examination policies. Any change in such policies, whether by the Federal Reserve Board, the NYDFS or the CFPB, or through legislation, could have a material adverse impact on the business, financial condition and operations of the Bank.

The Bank has been subject to increasing regulation and supervision in the U.S. and other countries. In particular, the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), and the rules thereunder, significantly altered the financial regulatory regime within which the Bank operates. Other reforms have been adopted or are being considered by regulators and policy makers worldwide, as described further throughout this section. Recent political developments, including the new presidential administration in the U.S., have added additional uncertainty to the implementation, scope and timing of regulatory reforms, including potential deregulation in some areas. On February 3, 2017, the President of the U.S. issued an executive order identifying "core principles" for the administration's financial services regulatory policy and directing the Secretary of the Treasury, in consultation with the heads of other financial regulatory agencies, to evaluate how the current regulatory framework promotes or inhibits the principles and what actions have been, and are being, taken to promote the principles. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Regulatory Developments" in Part II of this Annual Report for additional information about regulatory developments impacting the Bank.

**Stress Tests.** The Bank is required to conduct capital stress tests on an annual basis, to submit the results to the Federal Reserve Board, and to make a summary of results for the Federal Reserve's Severely Adverse scenario public. The rules require that the board of directors of the Bank, among other things, consider the results of the stress tests in the normal course of the Bank's business, including, but not limited to, its capital planning, assessment of capital adequacy and risk management practices.

**Prompt Corrective Action.** The U.S. Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), among other things, requires the federal bank regulatory agencies to take "prompt corrective action" in respect of depository institutions that do not meet specified capital requirements. FDICIA establishes five capital categories for FDIC-insured banks: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized.

An institution may be downgraded to, or deemed to be in, a capital category that is lower than is indicated by its capital ratios if it is determined to be in an unsafe or unsound condition or if it receives an unsatisfactory examination rating with respect to certain matters. FDICIA imposes progressively more restrictive constraints on operations, management and capital distributions, as the capital category of an institution declines. Failure to meet the capital requirements could also require a depository institution to raise capital. An institution also is prohibited from accepting, renewing or rolling over deposits by or through a "deposit broker" (as defined in FDICIA) unless the institution is well-capitalized. The FDIC may waive this prohibition if the institution is adequately capitalized; however, the prohibition cannot be waived if the institution is undercapitalized, significantly undercapitalized or critically undercapitalized.

An institution also is restricted with respect to the deposit interest rates it may offer if the institution is not well-capitalized. Ultimately, critically undercapitalized institutions are subject to the appointment of a receiver or conservator, as described under "Insolvency of an Insured Depository Institution" below.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Equity Capital Management and Regulatory Capital" in Part II of this Annual Report and Note 17 to the consolidated financial statements in Part III of this Annual Report for information about the quantitative requirements for a depository institution to be considered "well-capitalized."

**Dividends.** Dividends are reviewed and approved under the Bank's capital management policy. In addition, federal and state laws impose limitations on the payment of dividends by the Bank to Group Inc. In general, the amount of dividends that may be paid by the Bank is limited to the lesser of the amounts calculated under a "recent earnings" test and an "undivided profits" test.

Under the recent earnings test, a dividend may not be paid if the total of all dividends declared by the entity in any calendar year is in excess of the current year's net income combined with the retained net income of the two preceding years, unless the entity obtains prior regulatory approval. Under the undivided profits test, a dividend may not be paid in excess of the entity's "undivided profits" (generally, accumulated net profits that have not been paid out as dividends or transferred to surplus).

In addition to the recent earnings test and undivided profits test, capital management decisions are also driven by the Bank's capital management policy, which establishes guidelines to assist us in maintaining the appropriate level of capital in both business-as-usual and post-stress conditions.

The applicable U.S. banking regulators have authority to prohibit or limit the payment of dividends if, in the banking regulator's opinion, payment of a dividend would constitute an unsafe or unsound practice in light of the financial condition of the banking organization. In addition, the Bank is required to include any payment of dividends in its capital plan. Any dividends in the capital plan, even if they are in compliance with the recent earnings test and undivided profits test, are subject to non-objection from the Federal Reserve Board.

**Insolvency of an Insured Depository Institution.** Under the Federal Deposit Insurance Act of 1950 (FDI Act), if the FDIC is appointed as conservator or receiver for an insured depository institution such as the Bank, upon its insolvency or in certain other events, the FDIC has broad powers, including the power:

- To transfer any of the depository institution's assets and liabilities to a new obligor, including a newly formed "bridge" bank, without the approval of the depository institution's creditors;
- To enforce the depository institution's contracts pursuant to their terms without regard to any provisions triggered by the appointment of the FDIC in that capacity; or
- To repudiate or disaffirm any contract or lease to which the depository institution is a party, the performance of which is determined by the FDIC to be burdensome and the disaffirmance or repudiation of which is determined by the FDIC to promote the orderly administration of the depository institution.

In addition, the claims of holders of domestic deposit liabilities and certain claims for administrative expenses against an insured depository institution would be afforded a priority over other general unsecured claims, including claims of debtholders of the institution, in the "liquidation or other resolution" of such an institution by any receiver. As a result, whether or not the FDIC ever sought to repudiate any debt obligations of the Bank, the debtholders (other than depositors) would be treated differently from, and could receive, if anything, substantially less than, the depositors of the Bank.

Group Inc. and certain of its subsidiaries (including the Bank), along with a number of other major global banking organizations, adhere to the International Swaps and Derivatives Association Resolution Stay Protocol (the ISDA Protocol) that was developed and updated in coordination with the Financial Stability Board (FSB). The ISDA Protocol imposes a stay on certain cross-default and early termination rights within standard ISDA derivatives contracts and securities financing transactions between adhering parties in the event that one of them is subject to resolution in its home jurisdiction, including a resolution under the orderly liquidation authority or the FDI Act in the United States. The ISDA Protocol is expected to be adopted more broadly in the future, following the adoption of regulations by applicable U.S. banking regulators (including the Federal Reserve Board's proposal on qualified financial contracts described below), and expanded to include instances where a U.S. financial holding company becomes subject to proceedings under the U.S. Bankruptcy Code.

The FSB is an international body that sets standards and coordinates the work of national financial authorities and international standard-setting bodies. As an obligation of membership, the FSB's members, including the U.S., commit to implement international financial standards, including those of the FSB.

**Capital, Leverage and Liquidity Requirements.** The Bank is subject to consolidated regulatory capital and leverage requirements set forth by the Federal Reserve Board. Under these requirements, the Bank must meet specific regulatory capital requirements that involve quantitative measures of assets, liabilities and certain off-balance-sheet items. The sufficiency of the Bank's capital levels is also subject to qualitative judgments by regulators. The Bank is also subject to liquidity requirements established by the U.S. federal bank regulatory agencies that require it to meet specified ratios.

***Capital Ratios.*** The Bank computes its Common Equity Tier 1 (CET1) capital, Tier 1 capital and Total capital ratios in accordance with the revised risk-based capital and leverage regulations, inclusive of certain transitional provisions (Revised Capital Framework). The Revised Capital Framework is largely based on the Basel Committee on Banking Supervision's (Basel Committee) final capital framework for strengthening international capital standards (Basel III), and also implements certain provisions of the Dodd-Frank Act. Under the Revised Capital Framework, the Bank is an "Advanced approach" banking organization.

The Basel Committee is the primary global standard setter for prudential bank regulation and its member jurisdictions implement regulations based on its standards and guidelines.

The Revised Capital Framework, as applicable to the Bank, provides for two additional capital ratio requirements (commonly referred to as buffers) that phase in over time: (i) for capital conservation (capital conservation buffer) and (ii) for counter-cyclicality (counter-cyclical buffer). These additional capital ratio requirements must be satisfied entirely with capital that qualifies as CET1.

The capital conservation buffer began to phase in on January 1, 2016 and will continue to do so in increments of 0.625% per year until it reaches 2.5% of risk-weighted assets (RWAs) on January 1, 2019. The counter-cyclical buffer, of up to 2.5%, is designed to counteract systemic vulnerabilities and applies only to "Advanced approach" banking organizations, including the Bank. The counter-cyclical buffer is currently set at zero percent. Several other national supervisors have also started to require counter-cyclical buffers. The counter-cyclical buffer applicable to the Bank could change in the future and, as a result, the minimum capital ratios the Bank is subject to could increase.

The Basel Committee has issued a series of updates that propose other changes to capital regulations. In particular, in January 2016, the Basel Committee finalized a revised framework for calculating minimum capital requirements for market risk, which is expected to increase market risk capital requirements for most banking organizations. The Basel Committee has set an effective date for reporting under the revised framework for market risk capital of December 31, 2019. The U.S. federal bank regulatory agencies have not yet proposed rules implementing these revisions for U.S. banking organizations.

The Basel Committee has also:

- Finalized a revised standard approach for calculating RWAs for counterparty credit risk on derivatives exposures ("Standardized Approach for measuring Counterparty Credit Risk exposures," known as "SA-CCR");
- Published guidelines for measuring and controlling large exposures ("Supervisory Framework for measuring and controlling Large Exposures"); and
- Issued consultation papers on, among other matters, a "Review of the Credit Valuation Adjustment Risk Framework," revisions to the Basel Standardized and model-based approaches for credit risk and operational risk capital and the design of a capital floor framework based on the revised Standardized approach.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Equity Capital Management and Regulatory Capital" and Note 17 to the consolidated financial statements in Part III of this Annual Report for information about the Bank's capital ratios and minimum required ratios.

***Leverage Ratios.*** Under the Revised Capital Framework, the Bank is subject to Tier 1 leverage requirements established by the Federal Reserve Board. The Revised Capital Framework also introduced a supplementary leverage ratio for "Advanced approach" banking organizations effective January 1, 2018, which implements the Basel III leverage ratio framework.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Equity Capital Management and Regulatory Capital" and Note 17 to the consolidated financial statements in Part III of this Annual Report for information about the Bank's Tier 1 leverage ratio and supplementary leverage ratio.

***Liquidity Ratios.*** The Basel Committee's international framework for liquidity risk measurement, standards and monitoring requires banking organizations to measure their liquidity against two specific liquidity tests.

The liquidity coverage ratio (LCR) applicable to the Bank is generally consistent with the Basel Committee's framework and is designed to ensure that a banking organization maintains an adequate level of unencumbered high-quality liquid assets equal to or greater than the expected net cash outflows under an acute short-term liquidity stress scenario.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Risk Management — Liquidity Risk Management — Liquidity Regulatory Framework" in Part II of this Annual Report.

The net stable funding ratio (NSFR) is designed to promote medium- and long-term stable funding of the assets and off-balance-sheet activities of banking organizations over a one-year time horizon. The Basel Committee's NSFR framework requires banking organizations to maintain a minimum NSFR of 100% and will be effective on January 1, 2018. In May 2016, the U.S. federal bank regulatory agencies issued a proposed rule that would implement an NSFR for large U.S. banking organizations. The proposal would require banking organizations to ensure they have access to stable funding over a one-year time horizon. The proposed NSFR requirement has an effective date of January 1, 2018.

**Transactions between Affiliates.** Transactions between the Bank or its subsidiaries, on the one hand, and Group Inc. or its other subsidiaries and affiliates, on the other hand, are regulated by the Federal Reserve Board. These regulations generally limit the types and amounts of transactions (including credit extensions from the Bank or its subsidiaries to Group Inc. or its other subsidiaries and affiliates) that may take place and generally require those transactions to be on market terms or better to the Bank or its subsidiaries. These regulations generally do not apply to transactions between the Bank and its subsidiaries. The Dodd-Frank Act expanded the coverage and scope of these regulations, including by applying them to the credit exposure arising under derivative transactions, repurchase and reverse repurchase agreements, and securities borrowing and lending transactions.

**Resolution.** The Bank is required to submit a periodic plan for its rapid and orderly resolution in the event of material financial distress or failure (resolution plan) to the FDIC. The guidance applicable to covered insured depository institutions, including the Bank, requires that the Bank prepare and include in its resolution plan two strategies for its resolution. Accordingly, the Bank submitted a multiple acquirer strategy and a liquidation strategy in its most recent submission in 2015. The Bank's resolution plan must, among other things, demonstrate that the Bank is adequately protected from risks arising from Group Inc. and its other subsidiaries.

In addition, each bank holding company with over $50 billion in assets (including Group Inc.) and each designated systemically important financial institution is required by the Federal Reserve Board and the FDIC to provide a periodic resolution plan. Like the Bank's resolution plan, GS Group's resolution plan must, among other things, demonstrate that the Bank is adequately protected from risks arising from GS Group's other entities. The regulators' joint rule applicable to Group Inc. sets specific standards for the resolution plans, including analyses of the company's material entities, organizational structure, interconnections and interdependencies, and management information systems, among other elements. The Bank is a material operating entity of Group Inc. and as a result is included within Group Inc.'s resolution plan. If the regulators jointly determine that Group Inc. has failed to cure identified shortcomings in its resolution plan and that its resolution plan, after any permitted resubmission, is not credible or would not facilitate an orderly resolution under the U.S. Bankruptcy Code, the regulators may jointly impose more stringent capital, leverage or liquidity requirements or restrictions on growth, activities or operations or may jointly order Group Inc. to divest assets or operations in order to facilitate orderly resolution in the event of failure, any of which may impact the Bank.

In May 2016, the Federal Reserve Board released a proposal that would impose restrictions on qualified financial contracts (QFCs) of global systemically important banks (G-SIBs), and generally of their subsidiaries. This proposal is intended to facilitate the orderly resolution of a failed G-SIB by limiting the ability of the G-SIB to transact with QFC counterparties unless such counterparties waive rights to terminate such contracts immediately upon the entry of the G-SIB or one of its affiliates into resolution. The effective date is proposed to be approximately one year after the proposal is finalized.

**Total Loss-Absorbing Capacity.** In December 2016, the Federal Reserve Board adopted a final rule establishing loss-absorbency and related requirements for U.S. bank holding companies that are G-SIBs, such as Group Inc. The rule will be effective in January 2019 with no phase-in period. Although it does not apply to depository institutions, the rule impacts aspects of the operations of depository institutions that are subsidiaries of U.S. G-SIBs, including the Bank. For example, it prohibits Group Inc. from (i) guaranteeing obligations of the Bank if an insolvency or receivership of Group Inc. could give the counterparty the right to exercise a default right (for example, early termination) against the Bank, subject to an exception for guarantees permitted by rules of the U.S. federal banking agencies imposing restrictions on QFCs, which have not yet been adopted; (ii) incurring liabilities guaranteed by the Bank; and (iii) entering into QFCs with any person that is not a subsidiary of Group Inc. Moreover, the Federal Reserve Board has indicated that it is considering imposing total loss absorbing capacity requirements on material operating subsidiaries of U.S. G-SIBs, which may include the Bank.

**FDIC Insurance.** The Bank accepts deposits, and those deposits have the benefit of FDIC insurance up to the applicable limits. The FDIC's Deposit Insurance Fund (DIF) is funded by assessments on insured depository institutions, such as the Bank. The amounts of these assessments for larger depository institutions (generally those that have $10 billion in assets or more), such as the Bank, are currently based on the average total consolidated assets less the average tangible equity of the insured depository institution during the assessment period, the supervisory ratings of the insured depository institution and specified forward-looking financial measures used to calculate the assessment rate. The assessment rate is subject to adjustment by the FDIC.

In March 2016, the FDIC adopted a final rule increasing the reserve ratio for the DIF to 1.35% of total insured deposits. The rule imposes a surcharge on the assessments of larger depository institutions, including the Bank, that began in the third quarter of 2016 and continues through the earlier of the quarter that the reserve ratio first reaches or exceeds 1.35% and December 31, 2018. Under the rule, if the reserve ratio does not reach 1.35% by December 31, 2018, the FDIC will impose a shortfall assessment on larger depository institutions, including the Bank.

**Lending and Credit Limits.** New York State banking law imposes lending limits (which also take into account credit exposure from derivative transactions and securities financing transactions of securities representing debt obligations) and other requirements that could impact the manner and scope of the Bank's activities.

The Bank is also subject to limits under state and federal law that restrict the type and amount of investments it can make.

In March 2016, the Federal Reserve Board issued a revised proposal regarding single-counterparty credit limits, which would impose more stringent requirements for credit exposures among major financial institutions and apply in the aggregate to Group Inc. and its subsidiaries on a consolidated basis. Accordingly, although not applicable to the Bank on a standalone basis, the proposed limits could have the effect of constraining the Bank's management of its credit exposures because of the consolidated application of the limits, including with respect to hedges. The proposed rule implements part of the Dodd-Frank Act and seeks to promote global consistency by generally following the Basel Committee's Supervisory Framework for measuring and controlling Large Exposures.

The U.S. federal bank regulatory agencies have issued guidance that focuses on transaction structures and risk management frameworks and that outlines high-level principles for safe-and-sound leveraged lending, including underwriting standards, valuation and stress testing. This guidance has, among other things, limited the percentage amount of debt that can be included in certain transactions. The agencies have also recently issued guidance relating to underwriting standards and general risk-management standards in the area of commercial real estate addressing the need for prudent risk management practices by financial institutions engaging in commercial real estate lending activity.

**Community Reinvestment Act (CRA).** The Bank is subject to the provisions of the CRA. Under the terms of the CRA, the Bank has a continuing and affirmative obligation, consistent with safe and sound operation, to help meet the credit needs of its communities, including providing credit to individuals residing in low- and moderate-income neighborhoods.

The CRA does not establish specific lending requirements or programs for financial institutions nor does it limit an institution's discretion to develop the types of products and services that it believes are best suited to its particular community, so long as they are consistent with the CRA. The CRA requires each appropriate federal bank regulatory agency, in connection with its examination of a depository institution, to assess such institution's record in assessing and meeting the credit needs of the community served by that institution, including low- and moderate-income neighborhoods.

The assessment also is part of the Federal Reserve Board's consideration of applications to acquire, merge or consolidate with another banking institution or its holding company, to assume deposits of or acquire assets from another depository institution, to establish a new branch office that will accept deposits or to relocate an office. In the case of a bank holding company applying for approval to acquire a bank or other bank holding company, the Federal Reserve Board will assess the records of each subsidiary depository institution of the applicant bank holding company, and such records may be the basis for denying the application.

If any insured depository institution subsidiary of a financial holding company fails to maintain at least a "satisfactory" rating under the Community Reinvestment Act, the financial holding company would be subject to restrictions on certain new activities and acquisitions.

The Bank is also subject to provisions of the New York Banking Law that impose continuing and affirmative obligations upon a New York State-chartered bank to serve the credit needs of its local community (NYCRA). Such obligations are substantially similar to those imposed by the CRA. The NYCRA requires the NYDFS to make a periodic written assessment of an institution's compliance with the NYCRA, utilizing a four-tiered rating system, and to make such assessment available to the public. The NYCRA also requires the Superintendent to consider the NYCRA rating when reviewing an application to engage in certain transactions, including mergers, asset purchases and the establishment of branch offices, and provides that such assessment may serve as a basis for the denial of any such application.

The Federal Reserve Board, the federal regulator responsible for monitoring the Bank's CRA compliance, approved the designation of the Bank as a "wholesale bank." A wholesale bank generally is a bank that is not in the business of extending home mortgage, small business, small farm or consumer loans to retail customers and for which a designation as a wholesale bank is in effect. As a result of this designation, the Bank fulfills its CRA obligations through community development lending, qualified investments or community development services, rather than retail CRA loans. In the event that the Bank materially changes its lending activities or expands its businesses in the future, the Bank may lose its designation as a wholesale bank and therefore may be required to satisfy CRA obligations through different or expanded activities. See "Risk Factors — The Bank faces enhanced risks as new business initiatives lead it and its affiliates to transact with a broader array of clients and counterparties and expose the Bank and its affiliates to new assets, activities and markets" for a discussion of how new business initiatives could impact the Bank's CRA ratings.

The regulatory agencies' assessment of the institution's record is made available to the public. The Bank received "Outstanding" CRA ratings from the Federal Reserve Board and the NYDFS in its last completed examinations in 2012. The Bank's examiners began a new CRA public evaluation of the Bank in 2015, which is not yet complete.

**Consumer Protection Laws.** The Bank is subject to a number of federal and state consumer protection laws, including laws designed to protect customers and promote lending to various sectors of the economy and population. These laws include the Equal Credit Opportunity Act, the Fair Credit Reporting Act, the Truth in Lending Act, the Home Mortgage Disclosure Act, the Real Estate Settlement Procedures Act, the Flood Disaster Protection Act, the Military Lending Act, the Servicemembers Civil Relief Act, and their respective state law counterparts, as well as state laws regarding unfair and deceptive acts and practices.

The Dodd-Frank Act created a new, independent federal agency, the CFPB, which was granted broad rulemaking, supervisory and enforcement powers under various federal consumer financial protection laws, including the laws referenced above, fair lending laws and certain other statutes. The Bank is supervised by the CFPB, and is also subject to oversight by the Federal Reserve Board and the NYDFS, with respect to one or more of the foregoing laws and activities.

In connection with the Bank's expansion of its consumer-related deposit-taking and lending activities, the Bank is subject to enhanced legal and regulatory requirements, in particular, consumer protection laws and regulation, including regulation relating to Truth in Savings, Electronic Funds Transfer, Expedited Funds Availability, the Electronic Signatures in Global and National Commerce Act, Truth in Lending, the Servicemembers Civil Relief Act and unfair and deceptive acts and practices. The Bank has expanded its existing risk management platform and controls and is continuing to enhance, as appropriate, its existing regulatory and legal compliance programs, policies, procedures and processes to cover the activities, products and customers associated with these activities.

**Swaps, Derivatives and Commodities Regulation.** The commodity futures, commodity options and swaps industry in the United States is subject to regulation under the U.S. Commodity Exchange Act (CEA). The CFTC is the federal agency charged with the administration of the CEA. In addition, the SEC is the U.S. federal agency charged with the regulation of security-based swaps.

The Bank and its subsidiary Goldman Sachs Mitsui Marine Derivative Products, L.P. are registered swap dealers with the CFTC and are subject to CFTC regulations. The rules and regulations of various self-regulatory organizations, such as the Chicago Mercantile Exchange, other CFTC-registered clearinghouses and exchanges and the National Futures Association, also govern the commodity futures, commodity options and swaps activities of these entities.

The Dodd-Frank Act provides for significantly increased regulation of, and restrictions on, derivative markets and transactions. In particular, the Dodd-Frank Act imposes the following requirements relating to swaps and security-based swaps:

- Real-time public and regulatory reporting of trade information for swaps and security-based swaps and large trader reporting for swaps;
- Registration of swap dealers and major swap participants with the CFTC and of security-based swap dealers and major security-based swap participants with the SEC;
- Position limits, aggregated generally across commonly-controlled accounts and commonly-controlled affiliates, that cap exposure to derivatives on certain physical commodities;
- Mandated clearing through central counterparties and execution through regulated exchanges or electronic facilities for certain swaps and security-based swaps;
- New business conduct standards and other requirements for swap dealers, major swap participants, security-based swap dealers and major security-based swap participants, covering their relationships with counterparties, internal oversight and compliance structures, conflict of interest rules, internal information barriers, general and trade-specific record-keeping and risk management;
- Margin requirements for trades that are not cleared through a central counterparty; and
- Entity-level capital requirements for swap dealers, major swap participants, security-based swap dealers, and major security-based swap participants.

In addition, the "swap push-out" provisions of Section 716 of the Dodd-Frank Act restrict the ability of an insured depository institution, such as the Bank, to enter into structured finance swaps, or swaps referencing asset-backed securities, when such swaps are not entered into for hedging or other risk mitigation purposes. An insured depository institution that fails to comply with Section 716 could face restrictions on the institution's access to the Federal Reserve's discount window or FDIC deposit insurance or guarantees.

The terms "swaps" and "security-based swaps" are generally defined broadly for purposes of these requirements, and can include a wide variety of derivative instruments in addition to those conventionally called swaps. The definitions include certain forward contracts, options, and certain loan participations, subject to certain exceptions, and require compliance with certain aspects of the rules in connection with guarantees of swaps.

The definitions relate to a wide variety of underlying assets or obligations, including currencies, commodities, interest or other monetary rates, yields, indices, securities, credit events, loans and other financial obligations.

In general, the CFTC is responsible for issuing rules relating to swaps, swap dealers and major swap participants, and the SEC is responsible for issuing rules relating to security-based swaps, security-based swap dealers and major security-based swap participants. The U.S. federal bank regulatory agencies (acting jointly) are responsible for issuing margin rules for uncleared swaps and security-based swaps for swap dealers, security-based swap dealers, major swap participants and major security-based swap participants subject to their oversight.

In September 2016, the final margin rules issued by the U.S. federal bank regulatory agencies and the CFTC for uncleared swaps became effective. The phase-in schedule of the initial and variation margin requirements applicable to a particular swap dealer depends on the level of swaps, security-based swaps and/or exempt foreign exchange derivative transaction activity of the swap dealer and the relevant counterparty. Under the final rules, the largest swap market counterparties, including the Bank, were required to implement the initial margin requirements for uncleared swaps between those largest counterparties beginning in September 2016. The initial margin requirements will continue to be phased in through 2020. The variation margin requirements became effective for all financial counterparties, including the Bank, in March 2017. The final rules of the U.S. federal bank regulatory agencies generally apply to inter-affiliate transactions, with limited relief available from initial margin requirements for affiliates. Under the CFTC final rules, inter-affiliate transactions are exempt from initial margin requirements with certain exceptions, but variation margin requirements still apply.

In December 2016, the CFTC proposed revised capital regulations for swap dealers and major swap participants that are not subject to the capital rules of a prudential regulator, such as the Federal Reserve Board, as well as a liquidity requirement for those swap dealers. Many other requirements, including registration of swap dealers, mandatory clearing and execution of certain swaps, business conduct standards and real-time public trade reporting, have taken effect already under CFTC rules and the SEC and the CFTC have finalized the definitions of a number of key terms.

Finally, the CFTC is deciding which swaps must be cleared through central counterparties and executed on swap execution facilities or exchanges. In particular, certain interest rate swaps and credit default swaps are now subject to these clearing and trade-execution requirements. Both the CFTC and exchanges are expected to continue making such determinations in the future.

The SEC adopted rules relating to trade reporting and real-time reporting requirements for security-based swap dealers and major security-based swap participants. The SEC also adopted final rules relating to the registration of, and application of business conduct standards to, security-based swap dealers and major security-based swap participants, although compliance with such rules is not currently required. The SEC has proposed, but not yet finalized, rules to impose margin, capital and segregation requirements for security-based swap dealers and major security-based swap participants. The SEC has also proposed rules that would govern the design of new trading venues for security-based swaps and establish the process for determining which products must be traded on these venues. The Bank currently engages in transactions involving security-based swaps, and, accordingly, the SEC's rules will impact its business and may do so adversely.

Similar regulations have been proposed or adopted in jurisdictions outside the United States, including the adoption of standardized execution and clearing, margining and reporting requirements for OTC derivatives. For instance, the European Union has established regulatory requirements for OTC derivatives activities under the European Market Infrastructure Regulation, including requirements relating to portfolio reconciliation and reporting, clearing certain OTC derivatives and margining for uncleared derivatives.

The CFTC provided guidance and timing on the cross-border regulation of swaps and announced that it had reached an understanding with the European Commission regarding the cross-border regulation of derivatives and the common goals underlying their respective regulations. The CFTC also approved certain comparability determinations that would permit substituted compliance with non-U.S. regulatory regimes for certain swap regulations related to certain business conduct requirements, including chief compliance officer duties, conflict of interest rules, monitoring of position limits, record-keeping and risk management.

The SEC issued rules and guidance on cross-border security-based swap activities and the CFTC issued rules that determine the circumstances under which registered swap dealers are subject to the CFTC's rules regarding margin in connection with uncleared swaps in cross-border transactions.

In October 2016, the CFTC proposed rules addressing the extent to which swap dealers and major swap participants would be required to comply with the CFTC's business conduct standards in cross-border transactions. The proposal also would determine the circumstances under which U.S. and non-U.S. persons would be required to include their cross-border swap dealing transactions or swap positions in their calculations of the level of activity subject to CFTC jurisdiction for purposes of determining whether they are required to register as either a swap dealer or major swap participant.

See "Risk Factors — The Bank's business, and the businesses of its clients, are subject to extensive and pervasive regulation" for a discussion about how derivatives regulation could impact the Bank's business.

**Compensation Practices.** The compensation practices of the Bank, as a subsidiary of Group Inc., are subject to oversight by the Federal Reserve Board and other financial regulatory bodies worldwide. The scope and content of compensation regulation in the financial industry are continuing to develop, and the Bank expects that these regulations and resulting market practices will evolve over a number of years.

The U.S. federal bank regulatory agencies have provided guidance designed to ensure that incentive compensation arrangements at banking organizations take into account risk and are consistent with safe and sound practices. The guidance sets forth the following three key principles with respect to incentive compensation arrangements: (i) the arrangements should provide employees with incentives that appropriately balance risk and financial results in a manner that does not encourage employees to expose their organizations to imprudent risk; (ii) the arrangements should be compatible with effective controls and risk management; and (iii) the arrangements should be supported by strong corporate governance. The guidance provides that supervisory findings with respect to incentive compensation will be incorporated, as appropriate, into the organization's supervisory ratings, which can affect its ability to make acquisitions or perform other actions.

The guidance also provides that enforcement actions may be taken against a banking organization if its incentive compensation arrangements or related risk management, control or governance processes pose a risk to the organization's safety and soundness.

During the second quarter of 2016, the U.S. financial regulators, including the Federal Reserve Board, proposed revised rules on incentive-based payment arrangements at specified regulated entities having at least $1 billion in total assets (including the Bank and Group Inc.). The proposed revised rules would establish general qualitative requirements applicable to all covered entities, additional specific requirements for entities with total consolidated assets of at least $50 billion and further, more stringent requirements for those with total consolidated assets of at least $250 billion. The general qualitative requirements include (i) prohibiting incentive arrangements that encourage inappropriate risks by providing excessive compensation; (ii) prohibiting incentive arrangements that encourage inappropriate risks that could lead to a material financial loss; (iii) establishing requirements for performance measures to appropriately balance risk and reward; (iv) requiring board of director oversight of incentive arrangements; and (v) mandating appropriate record-keeping.

For larger financial institutions, the proposed revised rules would also introduce additional requirements applicable only to "senior executive officers" and "significant risk-takers" (as defined in the proposed rules), including (i) limits on performance measures and leverage relating to performance targets; (ii) minimum deferral periods; and (iii) subjecting incentive compensation to possible downward adjustment, forfeiture and clawback.

In October 2016, the NYDFS issued guidance emphasizing that its regulated banking institutions, including the Bank, must ensure that any incentive compensation arrangements tied to employee performance indicators are subject to effective risk management, oversight and control.

**Anti-Money Laundering and Anti-Bribery Rules and Regulations.** The U.S. Bank Secrecy Act (BSA), as amended by the USA PATRIOT Act of 2001 (USA PATRIOT Act), contains anti-money laundering (AML) and financial transparency laws and mandated the implementation of various regulations applicable to all financial institutions, including standards for verifying client identification at account opening, and obligations to monitor client transactions and report suspicious activities.

Through these and other provisions, the BSA and the USA PATRIOT Act seek to promote the identification of parties that may be involved in terrorism, money laundering or other suspicious activities. AML laws outside the U.S. contain similar provisions.

On June 30, 2016, the NYDFS adopted a final rule that imposes new requirements on regulated institutions, including the Bank, regarding their BSA/AML and sanctions compliance programs. The rule came into effect on January 1, 2017 and requires the Bank to maintain transaction-monitoring and filtering programs reasonably designed to comply with BSA/AML requirements and to stop transactions prohibited under the sanctions programs of Treasury's Office of Foreign Assets Control. The rule also requires the Bank to provide a certification to the NYDFS annually, beginning April 2018, that the Bank is in compliance with the transaction-monitoring and filtering program requirements.

In addition, the Bank is subject to laws and regulations worldwide, including the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act, relating to corrupt and illegal payments to, and hiring practices with regard to, government officials and others. The scope of the types of payments or other benefits covered by these laws is very broad and regulators are frequently using enforcement proceedings to define the scope of these laws. The obligation of a financial institution, including the Bank, to identify its clients, to monitor for and report suspicious transactions, to monitor direct and indirect payments to government officials, to respond to requests for information by regulatory authorities and law enforcement agencies, and to share information with other financial institutions, has required the implementation and maintenance of internal practices, procedures and controls.

**Volcker Rule.** The provisions of the Dodd-Frank Act referred to as the "Volcker Rule" became effective in July 2015. The Volcker Rule prohibits "proprietary trading," but permits activities such as market making and risk-mitigation hedging, which the Bank currently engages and will continue to engage in, and requires an extensive compliance program and includes additional reporting and record keeping requirements. The reporting requirements include calculating daily quantitative metrics on covered trading activities (as defined in the rule) and providing these metrics to regulators on a monthly basis at the bank holding company level.

In addition, the Volcker Rule limits the sponsorship of, and investment in, "covered funds" (as defined in the rule) by banking entities, including Group Inc. and its subsidiaries (including the Bank). Collateralized loan obligations and other vehicles in which the Bank invests, subject to certain exclusions, including an exclusion for certain loan securitizations, may be considered "covered funds" under the rule. The rule also limits certain types of transactions between the Bank and covered funds sponsored by Group Inc. and its subsidiaries, similar to the limitations on transactions between depository institutions and their affiliates. The limitation on investments in covered funds requires Group Inc. and its subsidiaries, including the Bank, to reduce their investments in each such fund to 3% or less of the fund's net asset value, and to reduce their aggregate investments in all such funds to 3% or less of the GS Group's Tier 1 capital.

**Privacy and Cyber Security Regulation.** The Bank is subject to laws and regulations enacted by U.S. federal and state governments and by various regulatory organizations or exchanges relating to the privacy of the information of clients, employees or others.

In February 2017, the NYDFS adopted regulations that, as of March 1, 2017, require financial institutions regulated by the NYDFS, including the Bank, to, among other things, (i) establish and maintain a cyber security program designed to ensure the confidentiality, integrity and availability of their information systems; (ii) implement and maintain a written cyber security policy setting forth policies and procedures for the protection of their information systems and nonpublic information; and (iii) designate a Chief Information Security Officer. In addition, in October 2016, the U.S. federal bank regulatory agencies issued an advance notice of proposed rulemaking on potential enhanced cyber risk management standards for large financial institutions.

**Other Regulation.** U.S. and non-U.S. government agencies, regulatory bodies and self-regulatory organizations, including state securities commissions and other state regulators in the U.S., are empowered to conduct administrative proceedings that can result in censure, fine, the issuance of cease-and-desist orders, or the suspension or expulsion of a regulated entity or its directors, officers or employees.

In addition, a number of the Bank's other activities, including its cross-border lending and derivatives activities, require it to obtain licenses, adhere to applicable regulations and be subject to the oversight of various regulators in the jurisdictions in which it conducts these activities.

**Securitizations.** The Bank is also subject to rules adopted by federal agencies pursuant to the Dodd-Frank Act that require any person who organizes or initiates an asset-backed security transaction to retain a portion (generally, at least five percent) of any credit risk that the person conveys to a third party. The new E.U. capital rules set out in the Capital Requirements Regulation also provide that no credit institution may be exposed to a securitization position unless the issuer retains a material net economic interest of at least five percent, which may impact the Bank in the context of its cross-border transactions. Securitizations would also be affected by rules proposed by the SEC to implement the Dodd-Frank Act's prohibition against securitization participants engaging in any transaction that would involve or result in any material conflict of interest with an investor in a securitization transaction. The proposed rules would exempt bona fide market-making activities and risk-mitigating hedging activities in connection with securitization activities from the general prohibition.

## Available Information

This Annual Report is available at http://www.goldmansachs.com/investor-relations/financials/current/subsidiary-financial-info/gsbank-usa/index.html. We also make available the annual report for the year ended December 2015, as well as the annual audited financial statements for the years ended 2011 through 2014, on our website at http://www.goldmansachs.com/ investor-relations/financials/archived/subsidiary-financialinfo/gsbank-usa/index.html. Information contained on such website is not part of, nor is it incorporated by reference into, this report.

## Cautionary Statement Regarding Forward-Looking Statements

In this Annual Report, we have included statements that may constitute "forward-looking statements." Forward-looking statements are not historical facts, but instead represent only our beliefs regarding future events, many of which, by their nature, are inherently uncertain and outside our control.

These statements include statements other than historical information or statements of current condition and may relate to our future plans and objectives and results, among other things, and may also include statements about the effect of changes to the capital, leverage, liquidity, long-term debt and total loss-absorbing capacity rules applicable to banks and bank holding companies, the impact of the Dodd-Frank Act on our business and operations, and various legal proceedings, governmental investigations or mortgage-related contingencies, as set forth in Notes 16 and 22, respectively, to the consolidated financial statements in Part III of this Annual Report, as well as statements about the results of our Dodd-Frank Act stress tests, statements about the objectives and effectiveness of our risk management and liquidity policies, statements about new business initiatives or trends in or growth opportunities and statements about our future status, activities or reporting under U.S. or non-U.S. banking and financial regulation.

By identifying these statements for you in this manner, we are alerting you to the possibility that our actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements. Important factors that could cause our actual results and financial condition to differ from those indicated in the forward-looking statements include, among others, those discussed under "Risk Factors" in this Annual Report.

We have provided in this Annual Report information regarding the Bank's capital, liquidity and leverage ratios, including the CET1, Tier 1 capital and Total capital ratios under the Advanced and Standardized approaches on a fully phased-in basis, with respect to the supplementary leverage ratio. The statements with respect to these ratios are forward-looking statements, based on our current interpretation, expectations and understandings of the relevant regulatory rules and guidance, and reflect significant assumptions concerning the treatment of various assets and liabilities and the manner in which the ratios are calculated. As a result, the methods used to calculate these ratios may differ, possibly materially, from those used in calculating the Bank's capital, liquidity and leverage ratios for any future disclosures. The ultimate methods of calculating the ratios will depend on, among other things, implementation guidance or further rulemaking from the U.S. federal bank regulatory agencies and the development of market practices and standards.

## Risk Factors

The Bank faces a variety of risks that are substantial and inherent in its business, including liquidity, market, credit, operational, model, legal, regulatory and reputational risks. The following are some of the more important factors that could affect the Bank's business.

### *The Bank's business has been and may continue to be adversely affected by conditions in the global financial markets and economic conditions generally.*

The Bank's business, by its nature, does not produce predictable earnings. The Bank generates a substantial amount of its revenue and earnings from transactions in financial instruments, including in connection with its market-making activities in interest rate and other derivatives and related products, and interest it charges on its lending portfolio.

The Bank's financial performance is highly dependent on the environment in which it operates. A favorable business environment is generally characterized by, among other factors, high global gross domestic product growth, regulatory and market conditions, which result in transparent, liquid and efficient capital markets, low inflation, high business and investor confidence, stable geopolitical conditions, clear regulations and strong business earnings. Unfavorable or uncertain economic and market conditions can be caused by: concerns about sovereign defaults; uncertainty in U.S. federal fiscal or monetary policy, the U.S. federal debt ceiling and the continued funding of the U.S. government; the extent of and uncertainty about the timing and nature of regulatory reforms; declines in economic growth, business activity or investor or business confidence; limitations on the availability or increases in the cost of credit and capital; illiquid markets; increases in inflation, interest rates, exchange rate or basic commodity price volatility or default rates; outbreaks of hostilities or other geopolitical instability or uncertainty, such as the U.K.'s referendum to withdraw from the E.U. (Brexit); corporate, political or other scandals that reduce investor confidence in capital markets; extreme weather events or other natural disasters or pandemics; or a combination of these or other factors.

The financial services industry and the financial markets have been materially and adversely affected in the past by significant declines in the values of nearly all asset classes and by a serious lack of liquidity. In addition, concerns about European sovereign debt risk and its impact on the European banking system, about the impact of Brexit and about changes in interest rates and other market conditions have resulted, at times, in significant volatility while negatively impacting the levels of activity of the Bank's clients. Actual changes in interest rates and other market conditions, including market conditions in China, have also resulted, at times, in significant volatility and negative impact to client activity levels.

General uncertainty about economic, political and market activities, and the scope, timing and final implementation of regulatory reform, as well as weak consumer, investor and CEO confidence resulting in large part from such uncertainty, continues to negatively impact activity of GS Group's or Bank's clients, which adversely affects the Bank's business. Periods of low volatility and periods of high volatility combined with a lack of liquidity, have at times had an unfavorable impact on the Bank's market-making business.

The Bank's revenues and profitability and those of its competitors have been and will continue to be impacted by current and future requirements relating to capital, leverage, minimum liquidity and long-term funding levels, requirements related to resolution and recovery planning, derivatives clearing and margin rules and levels of regulatory oversight, as well as limitations on which and, if permitted, how certain business activities may be carried out by financial institutions. Although interest rates are at or near historically low levels, financial institution returns have also been negatively impacted by increased funding costs due in part to the withdrawal of perceived government support of such institutions in the event of future financial crises. In addition, liquidity in the financial markets has also been negatively impacted as market participants and market practices and structures adjust to new regulations.

The degree to which these and other changes resulting from the financial crisis will have a long-term impact on the profitability of financial institutions will depend on the final interpretation and implementation of new regulations, the manner in which markets, market participants and financial institutions adapt to the new landscape, and the prevailing economic and financial market conditions. However, there is a significant risk that such changes will, at least in the near term, continue to negatively impact the absolute level of revenues and profitability at the Bank, GS Group and other financial institutions.

In addition, a significant portion of the Bank's business involves transactions with, through, arising from, involving, or otherwise related to other GS Group entities, and any adverse change in the businesses or activity levels of GS Group more broadly can have an adverse impact on the Bank. Accordingly, the Bank is materially affected by conditions in the global financial markets and economic conditions generally, both directly and through their impact on business levels at the Bank and its affiliates. These conditions can change suddenly and negatively.

***The Bank's business, and the businesses of its clients, are subject to extensive and pervasive regulation.***

As an FDIC-insured New York State-chartered bank, member of the Federal Reserve System, regulated swap dealer and subsidiary of a systemically important financial institution, the Bank is subject to extensive regulation. Among other things, as a result of regulators or private parties challenging the Bank's compliance with existing laws and regulations, the Bank could be fined, prohibited from engaging in some of its activities, prevented from engaging in new activities, subjected to limitations or conditions on its activities, including higher capital requirements, or subjected to new or substantially higher taxes or other governmental charges in connection with the conduct of its business or with respect to its employees. Such limitations or conditions may limit the Bank's business activities or negatively impact the Bank's profitability.

Separate and apart from the impact on the scope and profitability of the Bank's business activities, day-to-day compliance with existing laws and regulations, in particular those laws and regulations adopted since 2008, has involved and will, except to the extent that some of such regulations are modified or otherwise repealed, continue to involve significant amounts of time, including that of the Bank's senior leaders and that of an increasing number of dedicated compliance and other reporting, technology-focused and operational personnel, all of which may negatively impact the Bank's profitability.

If there are new laws or regulations or changes in the enforcement of existing laws or regulations applicable to the Bank specifically, GS Group generally, or the business activities of either of their clients, including capital, liquidity, leverage and margin requirements, restrictions on leveraged lending or other business practices, reporting requirements, requirements relating to recovery and resolution planning, higher FDIC deposit insurance assessments, tax burdens and compensation restrictions, that are imposed on a limited subset of financial institutions (either based on size, activities, geography or other criteria), compliance with these new laws or regulations, or changes in the enforcement of existing laws or regulations, could adversely affect the Bank's or GS Group's ability to compete effectively with other institutions that are not affected in the same way. In addition, regulation imposed on financial institutions or market participants generally, such as taxes on financial transactions, could adversely impact levels of market activity more broadly, and thus impact the Bank's business.

The Bank is also subject to regulations based on its derivatives activities. The application of new derivatives rules across different national and regulatory jurisdictions has not yet been fully established and specific determinations of the extent to which regulators in each of the relevant jurisdictions will defer to regulations in other jurisdictions have not yet been completed. The full impact of the various U.S. and non-U.S. regulatory developments in this area will not be known with certainty until all the rules are finalized and implemented and market practices and structures develop under the final rules. However, in general, the imposition of these various regulatory schemes could adversely affect the Bank's derivatives business by increasing costs, reducing counterparty demand for derivative products, and reducing general market liquidity, which could in turn lead to greater volatility. These factors could make it more difficult or more costly to establish and maintain hedging or trading strategies and could increase the risk, and reduce the profitability, of the Bank's derivatives business.

U.S. and non-U.S. regulatory developments, in particular the Dodd-Frank Act and Basel III, have significantly altered the regulatory framework within which the Bank operates and may adversely affect its competitive position and profitability.

Among the aspects of the Dodd-Frank Act that have affected or may in the future affect the Bank are increased capital, liquidity and reporting requirements; limitations on activities in which the Bank may engage; increased regulation of and restrictions on OTC derivatives markets and transactions; limitations on incentive compensation; limitations on affiliate transactions; limitations on credit exposure to any unaffiliated company; requirements to reorganize or limit activities in connection with recovery and resolution planning; and increased deposit insurance assessments. The implementation of higher capital requirements, the LCR and the NSFR, and requirements relating to the prohibition on proprietary trading and lending to covered funds by the Volcker Rule may adversely affect the Bank's profitability and competitive position, particularly if these requirements do not apply equally to the Bank's and GS Group's competitors or are not implemented uniformly across jurisdictions. Such requirements could reduce the amount of funds available to meet the Bank's obligations, including debt obligations.

The requirements for the Bank to develop and submit resolution plans to the FDIC, and the incorporation of feedback received from the FDIC, may require the Bank to increase its capital or liquidity levels or otherwise incur additional costs, and may reduce its ability to raise additional debt. Resolution planning may also impair GS Group's ability to structure its intercompany and external activities in a manner that it may otherwise deem most operationally efficient, which may affect the business of the Bank.

The Fixing America's Surface Transportation Act (FAST Act) enacted in December 2015 reduced the dividend rate applicable to Federal Reserve Bank depository institution stockholders with total assets of more than $10 billion (large member banks), including the Bank. The dividend rate for large member banks has been reduced to the lesser of 6.0% or the most recent 10-year Treasury auction rate prior to the dividend payment. The Federal Reserve Board issued a final rule in November 2016 implementing these provisions of the FAST Act with effect from January 1, 2017. The reduction to the applicable dividend rate for large member banks could significantly reduce the semi-annual dividend the Bank receives from the Federal Reserve Bank, which may adversely affect the Bank's business, financial condition or results of operations.

The Bank is also subject to laws and regulations relating to the privacy of the information of clients, employees or others, and any failure to comply with these regulations could expose the Bank to liability and/or reputational damage. In addition, the Bank's business is increasingly subject to laws and regulations relating to surveillance and encryption. Compliance with these and other laws and regulations may require the Bank to change its policies, procedures and technology for information security, which could, among other things, make the Bank more vulnerable to cyber attacks and misappropriation, corruption or loss of information or technology.

The Bank has expanded its consumer-related activities, including by accepting deposits directly from individuals and making personal loans directly to individuals, in each case, through online platforms. As a result of these platforms, the Bank is subject to enhanced legal and regulatory requirements, in particular, consumer protection laws and regulation, including regulation relating to Truth in Savings, Electronic Funds Transfer, Expedited Funds Availability, the Electronic Signatures in Global and National Commerce Act, Truth in Lending, the Servicemembers Civil Relief Act and unfair and deceptive acts and practices. The Bank has expanded its existing risk management platform and controls and is continuing to enhance, as appropriate, its existing regulatory and legal compliance programs, policies, procedures and processes to cover the activities, products and customers associated with its consumer-related activities. Any failure to implement or maintain these enhancements or to comply with these laws and regulations could expose the Bank to liability and/or reputational damage. See also "The Bank faces enhanced risks as new business initiatives lead it and its affiliates to transact with a broader array of clients and counterparties and expose it and its affiliates to new assets, activities and markets."

Increasingly, regulators and courts have sought to hold financial institutions liable for the misconduct of their clients where such regulators and courts have determined that the financial institution should have detected that the client was engaged in wrongdoing, even though the financial institution had no direct knowledge of the activities engaged in by its client. Regulators and courts continue to seek to establish "fiduciary" obligations to counterparties to which no such duty had been assumed to exist. To the extent that such efforts are successful, the cost of, and liabilities associated with, engaging in market-making and other similar activities could increase significantly. Any such wrongdoing by the Bank's clients could have materially negative legal, regulatory and reputational consequences.

For information about the extensive regulation to which the Bank's business is subject, see "Business — Regulation."

***The Bank is a wholly-owned subsidiary of Group Inc. and is dependent on Group Inc. and certain of its affiliates for client business, various services and capital.***

The Bank is a wholly-owned subsidiary of Group Inc. As a wholly-owned subsidiary, the Bank relies on various business relationships of GS Group generally, the ability to receive various services provided by affiliates, as well as, in part, the capital and liquidity of the Bank's parent, Group Inc. Although the Bank has taken steps to reduce its interconnectedness with its affiliates, the Bank remains an operating subsidiary of a larger organization and therefore its interconnectedness within, and dependence on, the organization will continue. Because the Bank's business relies upon Group Inc. and other GS Group entities to a significant extent, risks that could affect GS Group could also have a significant impact on the Bank.

The Bank is the primary lender of GS Group, and many of the individuals and institutions to which the Bank lends become clients of the Bank based on their other relationships with the Bank's affiliates. Similarly, clients of the Bank's affiliates, as well as the affiliates themselves, often serve as the Bank's counterparties to derivative transactions.

Furthermore, the Bank relies upon certain of its affiliates for various support services, including, but not limited to, trade execution, relationship management, loan origination, settlement and clearing, loan servicing, risk management and other administrative services. Such services are provided to the Bank pursuant to the Master Services Agreement, which are generally terminable upon mutual agreement of Group Inc. and its affiliates, subject to certain exceptions, including material breach of the agreement. For example, Group Inc. provides foreign exchange services to the Bank. If Group Inc. were to cease to provide such services, the Bank would be required to seek alternative sources, which could be difficult to obtain on the same terms or result in increased foreign exchange rates paid by the Bank.

As a consequence of the foregoing, in the event the Bank's relationships with its affiliates are not maintained, for any reason, including as a result of possible strategic decisions that Group Inc. may make from time to time or as a result of material adverse changes in Group Inc.'s performance, the Bank's interest and non-interest revenues may decline, the cost of operating and funding its business may increase and its business, financial condition and earnings may be materially and adversely affected.

As of December 2016, approximately 38% of the Bank's total deposits consisted of deposits from private wealth management clients of GS&Co. If clients terminate their relationships with GS&Co. or such relationships become impaired, the Bank would expect to lose the funding benefits of such relationships as well. Furthermore, the Bank receives a portion of its funding in the form of unsecured funding from Group Inc. and collateralized financings from other affiliates. To the extent such funding is not available to the Bank, the Bank's growth could be constrained and/or its cost of funding could increase. See also "The Bank's liquidity, profitability and business may be adversely affected by an inability to obtain funding or to sell assets or by a reduction in the credit ratings of the Bank or Group Inc. or by an increase in the credit spreads of the Bank and Group Inc."

***A failure by Group Inc. to guarantee certain obligations of the Bank could adversely affect the Bank's financial condition.***

Group Inc. has guaranteed the payment obligations of the Bank, other than non-recourse payment obligations and payment obligations arising in connection with brokered CDs issued by the Bank (unless the applicable governing documents of the CD expressly state otherwise). Certain of the Bank's other debtholders may be deemed to have waived and may not be entitled to the benefit of this guarantee. If Group Inc. terminates the guarantee, the Bank may have difficulty entering into future contractual arrangements with other counterparties who may request or require such guarantees.

***The Bank has been and may be adversely affected by declining asset values. This is particularly true for those activities in which the Bank has net "long" positions or receives or posts collateral.***

The Bank has net "long" positions in loans, derivatives, mortgages and other asset classes, including U.S. government and federal agency obligations, and may in the future take net long positions in other asset classes. These include positions the Bank takes when it commits capital to its clients as part of the Bank's lending activities or when it acts as a principal to facilitate the activities of its clients or counterparties (including GS Group affiliates) through the Bank's market-making activities relating to interest rate derivatives and other derivatives and related products. Because the Bank's market-making positions are marked-to-market on a daily basis, declines in asset values directly and immediately impact its earnings, unless the Bank has effectively "hedged" its exposures to such declines. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Critical Accounting Policies" in Part II of this Annual Report and Notes 5 through 8 to the consolidated financial statements in Part III of this Annual Report for further information about fair value measurements.

In certain circumstances (particularly in the case of credit products, including leveraged loans or other securities that are not freely tradable or lack established and liquid trading markets), it may not be possible or economic to hedge such exposures, and to the extent that the Bank does so, the hedge may be ineffective or may greatly reduce the Bank's ability to profit from increases in the values of the assets. Sudden declines and significant volatility in the prices of assets may substantially curtail or eliminate the trading markets for certain assets, which may make it difficult to sell, hedge or value such assets. The inability to sell or effectively hedge assets reduces the Bank's ability to limit losses in such positions and the difficulty in valuing assets may negatively affect the Bank's capital, liquidity or leverage ratios, increase the Bank's funding costs and generally require the Bank to maintain additional capital.

The Bank posts collateral to support its obligations and receives collateral to support the obligations of its clients and counterparties in connection with its derivatives activities. When the value of the assets posted as collateral or the credit ratings of the party posting collateral decline, the party posting the collateral may need to provide additional collateral or, if possible, reduce its position. Therefore, declines in the value of asset classes used as collateral mean that either the cost of funding positions is increased or the size of positions is decreased.

If the Bank is the party providing collateral, this can increase the Bank's costs and reduce its profitability. If the Bank is the party receiving collateral, this can also reduce the Bank's profitability by reducing the level of business done with its clients and counterparties. In its capacity as an agency lender, the Bank indemnifies all of its securities lending customers against losses incurred in the event that borrowers do not return securities and the collateral held is insufficient to cover the market value of the securities borrowed, and, therefore, declines in the value of collateral can subject the Bank to additional costs. In addition, volatile or less liquid markets increase the difficulty of valuing assets, which can lead to costly and time-consuming disputes over asset values and the level of required collateral, as well as increased credit risk to the recipient of the collateral due to delays in receiving adequate collateral.

***The Bank's market-making activities have been and may be affected by changes in the levels of market volatility.***

Certain of the Bank's market-making activities depend on market volatility to provide trading and arbitrage opportunities to its clients, and decreases in volatility may reduce these opportunities and adversely affect the results of these activities. On the other hand, increased volatility, which can increase trading volumes and spreads, also increases risk as measured by Value-at-Risk (VaR) and may expose the Bank to increased risks in connection with its market-making activities or cause the Bank to reduce its market-making inventory in order to avoid increasing its VaR. Limiting the size of the Bank's market-making positions can adversely affect its profitability.

In periods when volatility is increasing, but asset values are declining significantly, it may not be possible to sell assets at all or it may only be possible to do so at steep discounts. In such circumstances the Bank may be forced to either take on additional risk or to realize losses in order to decrease its VaR. In addition, increases in volatility increase the level of the Bank's risk weighted assets, which increases its capital requirements.

***The Bank's business, profitability and liquidity may be adversely affected by deterioration in the credit quality of, or defaults by, third parties who owe the Bank money, securities or other assets or whose securities or obligations the Bank holds.***

A number of the Bank's products expose it to credit risk, including loans, lending commitments and derivatives. The Bank is exposed to the risk that third parties that owe it money, securities or other assets will not perform on their obligations. These parties may default on their obligations to the Bank due to bankruptcy, lack of liquidity, operational failure or other reasons. A failure of a significant market participant, or even concerns about a default by such an institution, could lead to significant liquidity problems, losses or defaults by other institutions, which in turn could adversely affect the Bank.

The Bank is also subject to the risk that its rights against third parties may not be enforceable in all circumstances. In addition, deterioration in the credit quality of third parties whose securities or obligations the Bank holds, including a deterioration in the value of collateral posted by third parties to secure their obligations to the Bank under derivatives contracts and loan agreements, could result in losses and/or adversely affect the Bank's ability to rehypothecate or otherwise use those securities or obligations for liquidity purposes.

A significant downgrade in the credit ratings of the Bank's counterparties could also have a negative impact on the Bank's results. While in many cases the Bank is permitted to require additional collateral from counterparties that experience financial difficulty, disputes may arise as to the amount of collateral the Bank is entitled to receive and the value of pledged assets. The termination of contracts and the foreclosure on collateral may subject the Bank to claims for the improper exercise of its rights, including that the foreclosure was not permitted under the legal documents, was conducted in an improper manner or caused a client or counterparty to go out of business. Default rates, downgrades and disputes with counterparties as to the valuation of collateral increase significantly in times of market stress and illiquidity.

The Bank relies on information furnished by or on behalf of customers and counterparties in deciding whether to extend credit or enter into other transactions. This information could include financial statements, credit reports and other financial information. The Bank also relies on representations of those customers, counterparties or other third parties, such as independent auditors, as to the accuracy and completeness of that information. Reliance on inaccurate or misleading financial statements, credit reports or other financial information could have a material adverse impact on the Bank's business, financial condition and results of operations.

Although the Bank regularly reviews credit exposures to specific clients and counterparties and to specific industries, countries and regions that the Bank believes may present credit concerns, default risk may arise from events or circumstances that are difficult to detect or foresee.

### ***Concentration of risk increases the potential for significant losses in the Bank's lending, market-making and other activities.***

Concentration of risk increases the potential for significant losses in the Bank's lending, market-making and other activities. The number and size of such transactions may affect the Bank's results of operations in a given period. In particular, the Bank extends large commitments as part of its credit activities. Because of concentration of risk, the Bank may suffer losses even when economic and market conditions are generally favorable for its competitors. Disruptions in the credit markets can make it difficult to hedge these credit exposures effectively or economically.

Rules adopted under the Dodd-Frank Act, as well as non-U.S. regulation, require issuers of asset-backed securities and any person who organizes and initiates an asset-backed securities transaction to retain economic exposure to the asset, which is likely to significantly increase the cost to the Bank of engaging in securitization activities. See "Business – Regulation – Securitizations" in Part I of this Annual Report for additional information.

The Bank's inability to reduce its credit risk by selling, syndicating or securitizing these positions, including during periods of market stress, could negatively affect its results of operations due to a decrease in the fair value of the positions, including due to the insolvency or bankruptcy of the borrower, as well as the loss of revenues associated with selling such securities or loans.

In the ordinary course of business, the Bank may be subject to a concentration of credit risk to a particular counterparty, borrower, issuer, including sovereign issuers, clearing house or exchange, geographic area or group of related countries, such as the E.U., or industry. A failure or downgrade of, or default by, an entity to which the Bank has a concentration of credit risk could negatively impact its business, perhaps materially, and the systems by which the Bank sets limits and monitors the level of its credit exposure to individual entities, industries and countries may not function as the Bank has anticipated.

Provisions of the Dodd-Frank Act have led to increased centralization of trading activity through particular clearing houses, central agents or exchanges, which has significantly increased the Bank's concentration of risk with respect to these entities. While the Bank's activities expose it to many different industries, counterparties and countries, the Bank routinely executes a high volume of transactions with counterparties engaged in financial services activities, including asset managers, investment funds, commercial banks, brokers and dealers, clearing houses and exchanges. This has resulted in significant credit concentration with respect to these counterparties. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Risk Management — Credit Risk Management — Credit Exposure by Industry, Region and Credit Quality" in Part II of this Annual Report for additional information about the Bank's credit concentration and exposure.

### ***Changes in market interest rates could adversely affect the Bank's revenues and expenses, the value of assets and obligations, and the availability and cost of funding.***

As a result of the Bank's lending and deposit-taking activities, the Bank has exposure to market interest rate movements. In addition to the impact on the general economy, changes in interest rates could directly impact the Bank in one or more of the following ways:

- The yield on interest-earning assets, primarily on the Bank's loan portfolio, and rates paid on interest-bearing liabilities, primarily the Bank's deposit-taking activities, may change in disproportionate ways;
- The value of certain balance sheet and off-balance sheet financial instruments that the Bank holds could decline; or
- The cost of funding from affiliates or third parties may increase and the ability to raise funding could become more difficult.

The Bank's profitability depends to a significant extent on the Bank's net interest income, which is the difference between the interest income the Bank earns on its interest-earning assets, such as loans and securities, and its interest expense on interest-bearing liabilities, such as deposits and borrowed funds. Accordingly, the Bank's results of operations depend to a significant extent on movements in market interest rates and the Bank's ability to manage its interest-rate-sensitive assets and liabilities in response to these movements. Factors such as inflation, recession and instability in financial markets, among other factors beyond its control, may affect interest rates.

Any substantial, unexpected, prolonged change in market interest rates could have a material adverse effect on the Bank's financial condition, liquidity and results of operations. Changes in the level of interest rates also may negatively affect the Bank's ability to originate loans, the value of its assets and its ability to realize gains from the sale of its assets, all of which ultimately affect the Bank's earnings.

### ***The Bank might underestimate the credit losses inherent in its loan portfolio and have credit losses in excess of the amount reserved.***

The credit quality of the Bank's loan portfolio can have a significant impact on its earnings. The Bank estimates and establishes reserves for credit risks and credit losses inherent in its credit exposure (including unfunded lending commitments). This process requires difficult, subjective and complex judgments of loan collectability. As is the case with any such assessments, there is always the chance that the Bank will fail to identify the proper factors or that the Bank will fail to accurately estimate the impacts of factors that the Bank does identify.

The Bank might underestimate the credit losses inherent in its loan portfolio and have credit losses in excess of the amount reserved. While management uses the best information available to determine this estimate, the Bank may make future adjustments to the allowance based on, among other things, changes in the economic environment or variances between actual results and the original assumptions used.

### ***The Bank may incur losses as a result of ineffective risk management processes and strategies.***

The Bank seeks to monitor and control its risk exposure through a risk and control framework encompassing a variety of separate but complementary financial, credit, operational, compliance and legal reporting systems, internal controls, management review processes and other mechanisms that cover risks associated with the Bank's own activities as well as activities conducted through third-party relationships. In doing so, the Bank uses and benefits from the risk management processes of GS Group. The Bank's risk management process seeks to balance its ability to profit from lending, market-making or other positions with its exposure to potential losses. While the Bank employs a broad and diversified set of risk monitoring and risk mitigation techniques, those techniques and the judgments that accompany their application cannot anticipate every economic and financial outcome or the specifics and timing of such outcomes. Thus, the Bank may, in the course of its activities, incur losses. Market conditions in recent years have involved unprecedented dislocations and highlight the limitations inherent in using historical data to manage risk.

The models that the Bank uses to assess and control its risk exposures reflect assumptions about the degrees of correlation or lack thereof among prices of various asset classes or other market indicators. In times of market stress or other unforeseen circumstances, such as those that occurred during 2008 and early 2009, and to some extent since 2011, previously uncorrelated indicators may become correlated, or conversely previously correlated indicators may move in different directions. These types of market movements have at times limited the effectiveness of the Bank's hedging strategies and have caused the Bank to incur significant losses, and they may do so in the future.

These changes in correlation can be exacerbated where other market participants are using models with assumptions or algorithms that are similar to ours. In these and other cases, it may be difficult to reduce the Bank's risk positions due to the activity of other market participants or widespread market dislocations, including circumstances where asset values are declining significantly or no market exists for certain assets.

In addition, the use of models in connection with risk management and numerous other critical activities presents risks that such models may be ineffective, either because of poor design or ineffective testing, improper or flawed inputs, as well as unpermitted access to such models resulting in unapproved or malicious changes to the model or its inputs.

To the extent that the Bank has positions through its lending, market-making or other activities that do not have an established liquid trading market or are otherwise subject to restrictions on sale or hedging, the Bank may not be able to reduce its positions and therefore reduce its risk associated with such positions.

Prudent risk management, as well as regulatory restrictions, may cause the Bank to limit its exposure to counterparties, geographic areas or markets, which may limit its business opportunities and increase the cost of its funding or hedging activities.

For further information about the Bank's risk management structure and processes, see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Risk Management — Overview and Structure of Risk Management" in Part II of this Annual Report.

***Loss of deposits could increase the Bank's funding costs and adversely affect the Bank's liquidity and ability to grow its business.***

The Bank relies primarily on deposits to be a low cost and stable source of funding for the loans it makes and the financial transactions in which it engages. The Bank accepts deposits from private wealth management clients of GS&Co., and from individuals through its online platform, issues CDs, accepts deposits through deposit sweep agreements with third-party broker-dealers and accepts deposits from the Bank's affiliates. Some of the deposit accounts, such as deposits from individuals that are savings deposits and from private wealth management clients that are deposit sweeps and the third-party deposit sweeps, do not have significant restrictions on withdrawal, and clients can generally withdraw some or all of the funds in their accounts with little or no notice. Furthermore, the Bank competes with banks and other financial services companies for deposits. Competitors may raise the rates they pay on deposits and the Bank may be required to raise its rates to avoid losing deposits.

If the Bank experiences significant withdrawals, for any reason, or raises the rates it pays on deposits, the Bank's funding costs may increase as it may be required to rely on more expensive sources of funding. If the Bank is required to fund its operations at a higher cost, these conditions may require the Bank to curtail its activities, which also could reduce its profitability.

All of the Bank's deposits held under external deposit sweep program agreements are placed through third-party vendors. As of December 2016, those programs accounted for approximately 14% of the Bank's total deposits. These vendors may not unilaterally terminate the currently-existing sweep agreements, however, they could determine not to engage in additional sweep agreements with the Bank in the future. The termination of these vendor relationships could result in a significant decrease in deposits and adversely affect the Bank's liquidity if the Bank is unable to form direct relationships with the third-party brokers.

The FDI Act prohibits an insured bank from accepting brokered deposits or offering interest rates on any deposits significantly higher than the prevailing rate in the bank's normal market area or nationally (depending upon where the deposits are solicited), unless it is "well-capitalized" for Prompt Corrective Action purposes or it is "adequately-capitalized" and receives a waiver from the FDIC. A bank that is "adequately-capitalized" and accepts brokered deposits under a waiver from the FDIC may not pay an interest rate on any deposit in excess of 75 basis points over certain prevailing market rates. There are no such restrictions under the FDI Act on a bank that is "well-capitalized."

However, there can be no assurance that the Bank will continue to meet all applicable requirements. In the event that the Bank does not continue to meet those requirements in the future, the Bank may be prohibited from accepting brokered deposits pursuant to its deposit sweep agreements. Restrictions or limitations on the Bank's ability to accept brokered deposits for any reason (including regulatory limitations on the amount of brokered deposits in total or as a percentage of total assets) in the future could materially and adversely impact the Bank's funding costs and liquidity because a substantial portion of the Bank's deposits are "brokered deposits" for prompt corrective action purposes. Any limitation on the interest rates the Bank can pay on deposits could competitively disadvantage it in attracting and retaining deposits and have a material adverse effect on its business.

***The Bank's business has been and may be adversely affected by disruptions in the credit markets, including reduced access to credit and higher costs of obtaining credit.***

Widening credit spreads for the Bank or Group Inc., as well as significant declines in the availability of credit, may adversely affect the Bank's ability to borrow. The Bank obtains a portion of its funding from Group Inc., which funds itself on an unsecured basis by issuing debt and a variety of financial instruments, or by obtaining bank loans or lines of credit. The Bank also seeks to finance certain of its assets on a secured basis. Any disruptions in the credit markets may make it harder and more expensive for the Bank to obtain secured funding, whether from third-parties or affiliates.

If the Bank's available funding is limited or the Bank is forced to fund its operations at a higher cost, these conditions may require the Bank to curtail its activities and increase its cost of funding, both of which could reduce its profitability, particularly with respect to its activities that involve lending and market making.

The Bank may also syndicate credit transactions to other financial institutions. Market volatility, a lack of available credit or an increased cost of credit can negatively impact the Bank's ability to syndicate financing, and, as a result, can adversely affect the Bank's business.

***The Bank's liquidity, profitability and business may be adversely affected by an inability to obtain funding or to sell assets or by a reduction in the credit ratings of the Bank or Group Inc. or by an increase in the credit spreads of the Bank and Group Inc.***

Liquidity is essential to the Bank's business. The Bank's liquidity may be impaired by an inability to obtain or maintain sufficient funding — whether through deposits or funding from its affiliates, access to the debt capital markets, sales of assets or access to Federal Home Loan Bank of New York advances — or by unforeseen outflows of cash or collateral.

Any such constraints on liquidity may arise due to circumstances that the Bank may be unable to control, such as a general market disruption or an operational problem that affects third parties or the Bank, or GS Group more broadly, or even by the perception among market participants that the Bank, or other market participants, are experiencing greater liquidity risk.

The Bank employs structured products to benefit its clients and hedge its own risks and risks incurred by the Bank's affiliates. The financial instruments that the Bank holds and the contracts to which the Bank is a party are often complex, and these complex structured products often do not have readily available markets to access in times of liquidity stress. In addition, the Bank's lending activities may lead to situations where the holdings from these activities represent a significant portion of specific markets, which could restrict liquidity for the Bank's positions.

Further, the Bank's ability to sell assets may be impaired if there is not generally a liquid market for such assets, as well as in circumstances where other market participants are seeking to sell similar otherwise generally liquid assets at the same time, as is likely to occur in a liquidity or other market crisis or in response to changes to rules or regulations. In addition, financial institutions with which the Bank interacts may exercise set-off rights or the right to require additional collateral, including in difficult market conditions, which could further impair the Bank's access to liquidity.

The Bank's credit ratings, as well as the credit ratings of Group Inc. (as described further below), are important to the Bank's liquidity. A reduction in the Bank's or Group Inc.'s credit ratings could adversely affect the Bank's liquidity and competitive position, increase its borrowing costs (including borrowing from its affiliates), limit its access to the capital markets or trigger its obligations under certain provisions in some of its derivatives or collateralized financing contracts. Under these provisions, counterparties could be permitted to terminate contracts with the Bank or require it to post additional collateral or make termination payments.

Termination of the Bank's derivatives and collateralized financing contracts could cause the Bank to sustain losses and impair its liquidity by requiring it to find other sources of financing or to make significant cash payments or securities movements.

A downgrade by any one rating agency, depending on the agency's relative ratings of the Bank or Group Inc. at the time of the downgrade, may have an impact, which is comparable to the impact of a downgrade by all rating agencies. For further information about the Bank's credit ratings, see "Management's Discussion and Analysis of Financial Condition and Results of Operations — Risk Management — Liquidity Risk Management — Credit Ratings" in Part II of this Annual Report.

As noted above, Group Inc.'s credit ratings also are important to the Bank's liquidity. Group Inc. generally guarantees all of the Bank's payment obligations, subject to certain limitations. Group Inc. generally raises the majority of non-deposit unsecured funding of GS Group and then lends to subsidiaries, including the Bank, to meet subsidiaries' funding needs. Any increase in Group Inc.'s borrowing costs may require the Bank to seek alternative sources of funding, which could result in an increase in borrowing costs for the Bank.

The Bank's cost of obtaining long-term unsecured funding is directly related to the Bank's credit spreads (the amount in excess of the interest rate of U.S. Treasury securities (or other benchmark securities) of the same maturity that the Bank needs to pay to respective debt investors). Increases in the Bank's credit spreads can significantly increase the cost of this funding. Changes in credit spreads are continuous, market-driven, and subject at times to unpredictable and highly volatile movements. The Bank's credit spreads are also influenced by market perceptions of its creditworthiness. In addition, the Bank's credit spreads may be influenced by movements in the costs to purchasers of credit default swaps referenced to the Bank's long-term debt. The market for credit default swaps has proven to be extremely volatile and at times has lacked a high degree of transparency or liquidity. Increases in Group Inc.'s credit spreads and negative market perceptions of Group Inc.'s creditworthiness could also impact the Bank's ability to obtain long-term unsecured funding, and Group Inc.'s inability to obtain long-term unsecured funding could negatively impact the Bank's operations.

Regulatory changes relating to liquidity may also negatively impact the Bank's results of operations and competitive position. Recently, numerous regulations have been adopted or proposed, and additional regulations are under consideration, to introduce more stringent liquidity requirements for large financial institutions, such as the Bank or Group Inc. These regulations and others being considered address, among other matters, liquidity stress testing, minimum liquidity requirements, wholesale funding, limitations on the issuance of short-term debt and structured notes and prohibitions on parent guarantees that are subject to cross-defaults. Such regulations may overlap with, and be impacted by, other regulatory changes, which could result in unintended cumulative effects, and their full impact will remain uncertain until implementation of post-financial crisis regulatory reform is complete.

***A failure to appropriately identify and address potential conflicts of interest could adversely affect the Bank's business.***

Due to the broad scope of GS Group's businesses and client base, the Bank regularly addresses potential conflicts of interest within the organization, including situations where the Bank's products or services to a particular client or GS Group's investments or other interests conflict, or are perceived to conflict, with the interests of another client, as well as situations where one or more of GS Group's businesses have access to material non-public information that may not be shared within GS Group and situations where the Bank may be a creditor of an entity with which the Bank or one of its affiliates also has an advisory or other relationship.

In addition, in certain areas the Bank or one or more of its affiliates may act as a fiduciary which could give rise to a conflict if the Bank also acts as a principal in the same business.

The Bank has extensive procedures and controls that are designed to identify and address conflicts of interest, including those designed to prevent the improper sharing of information among the Bank and its affiliates. However, appropriately identifying and dealing with conflicts of interest is complex and difficult, particularly as the Bank expands its activities, and the Bank's reputation, which is one of its most important assets, could be damaged and the willingness of clients to enter into transactions with the Bank may be affected if it or its affiliates fail, or appear to fail, to identify, disclose and deal appropriately with conflicts of interest. In addition, potential or perceived conflicts could give rise to litigation or regulatory enforcement actions.

***A failure in the Bank's or its affiliates' operational systems or infrastructure, or those of third parties, as well as human error, could impair the Bank's liquidity, disrupt its business, result in the disclosure of confidential information, damage its reputation and cause losses.***

The Bank's business is highly dependent on its ability to process and monitor, on a daily basis, a large number of transactions, many of which are highly complex and occur at high volumes and frequencies, across numerous and diverse markets in many currencies. These transactions, as well as the information technology services the Bank provides to clients, often must adhere to client-specific guidelines, as well as legal and regulatory standards.

Many rules and regulations govern the Bank's obligations to report transactions and other information to regulators and exchanges. Compliance with these legal and reporting requirements can be challenging, and financial institutions, including GS Group, have been subject to regulatory fines and penalties for failing to report timely, accurate and complete information. As reporting requirements expand, compliance with these rules and regulations has become more challenging.

As the Bank's client base expands, and the volume, speed, frequency and complexity of transactions, especially electronic transactions (as well as the requirements to report such transactions on a real-time basis to clients, regulators and exchanges) increase, developing and maintaining the Bank's operational systems and infrastructure becomes more challenging, and the risk of systems or human error in connection with such transactions increases, as well as the potential consequences of such errors due to the speed and volume of transactions involved and the potential difficulty associated with discovering such errors quickly enough to limit the resulting consequences.

The Bank's financial, accounting, data processing or other operational systems and facilities, or operational systems or facilities of affiliates on which it depends, may fail to operate properly or become disabled as a result of events that are wholly or partially beyond the Bank's control, such as a spike in transaction volume, adversely affecting the Bank's ability to process these transactions or provide these services. These systems must be continuously updated to support the Bank's operations and growth and to respond to changes in regulations and markets. The Bank and its affiliates invest heavily in systemic controls and training to ensure that such transactions do not violate applicable rules and regulations or, due to errors in processing such transactions, adversely affect markets, the Bank's clients and counterparties or the Bank.

Systems enhancements and updates, as well as the requisite training, including in connection with the integration of new businesses, entail significant costs and create risks associated with implementing new systems and integrating them with existing ones.

Notwithstanding the proliferation of technology and technology-based risk and control systems, the Bank's business ultimately relies on people as the Bank's greatest resource, and, from time-to-time, they make mistakes that are not always caught immediately by the Bank's technological processes or by its other procedures, which are intended to prevent and detect such errors. These can include calculation errors, mistakes in addressing emails, errors in software or model development or implementation, or simple errors in judgment. The Bank strives to eliminate such human errors through training, supervision, technology and by redundant processes and controls. Human errors, even if promptly discovered and remediated, can result in material losses and liabilities.

In addition, the Bank faces the risk of operational failure, termination or capacity constraints of any of the clearing agents, exchanges, clearing houses or other financial intermediaries the Bank uses to facilitate its derivatives transactions, and as the Bank's interconnectivity with its clients grows, the Bank increasingly faces the risk of operational failure with respect to its clients' systems.

In recent years, there has been significant consolidation among clearing agents, exchanges and clearing houses and an increasing number of derivative transactions are now, or in the near future will be, cleared on exchanges, which has increased the Bank's exposure to operational failure, termination or capacity constraints of the particular financial intermediaries that the Bank uses and could affect its ability to find adequate and cost-effective alternatives in the event of any such failure, termination or constraint. Industry consolidation, whether among market participants or financial intermediaries, increases the risk of operational failure as disparate complex systems need to be integrated, often on an accelerated basis.

Furthermore, the interconnectivity of multiple financial institutions with central agents, exchanges and clearing houses, and the increased centralization of these entities, increases the risk that an operational failure at one institution or entity may cause an industry-wide operational failure that could materially impact the Bank's ability to conduct business. Any such failure, termination or constraint could adversely affect the Bank's ability to effect transactions, service its clients, manage its exposure to risk or expand its business or result in financial loss or liability to its clients, impairment of its liquidity, disruption of its business, regulatory intervention or reputational damage.

The Bank also relies on third-party vendors and is ultimately responsible for activities conducted by any third-party service provider and adverse regulatory consequences. Although the Bank takes actions to manage the risks associated with activities conducted through third-party relationships, any problems caused by a third-party service provider could adversely affect the Bank's ability to deliver products and services to its customers and to conduct its business.

Despite the resiliency plans and facilities the Bank has in place, the Bank's ability to conduct business may be adversely impacted by a disruption in the infrastructure that supports its business and the communities in which it is located. This may include a disruption involving electrical, satellite, undersea cable or other communications, internet, transportation or other services facilities used by the Bank or third parties with which it conducts business, including cloud service providers. These disruptions may occur as a result of events that affect only GS Group's buildings or systems or those of such third parties, or as a result of events with a broader impact globally, regionally or in the cities where those buildings or systems are located, including, but not limited to, natural disasters, war, civil unrest, terrorism, economic or political developments, pandemics and weather events.

Many of the Bank's employees, including employees it shares with its affiliates, work in close proximity to one another in GS Group's facilities in New York and New Jersey. Notwithstanding GS Group's efforts to maintain business continuity, given that GS Group's headquarters and most of its employees are in the New York metropolitan area, and GS Group's two principal office buildings in the New York area both are located on the waterfront of the Hudson River, depending on the intensity and longevity of the event, a catastrophic event impacting the New York metropolitan area offices, including a terrorist attack, extreme weather event or other hostile or catastrophic event, could negatively affect the Bank's business. If a disruption occurs in one location and the Bank's employees in that location are unable to occupy the offices or communicate with or travel to other locations, the Bank's ability to service and interact with its clients may suffer, and GS Group may not be able to successfully implement contingency plans that depend on communication or travel.

***A failure to protect the Bank's computer systems, networks and information, and the Bank's clients' information, against cyber attacks and similar threats could impair the Bank's ability to conduct its business, result in the disclosure, theft or destruction of confidential information, damage its reputation and cause losses.***

The Bank's operations rely on the secure processing, storage and transmission of confidential and other information in GS Group's computer systems and networks, and the Bank's technology risk function uses and benefits from the processes and resources of the GS Group technology risk function. There have been several highly publicized cases involving financial services companies, consumer-based companies and other organizations reporting the unauthorized disclosure of client, customer or other confidential information in recent years, as well as cyber attacks involving the dissemination, theft and destruction of corporate information or other assets, as a result of failure to follow procedures by employees or contractors or as a result of actions by third-parties, including actions by foreign governments. There have also been several highly publicized cases where hackers have requested "ransom" payments in exchange for not disclosing customer information.

The Bank and its affiliates are regularly the targets of attempted cyber attacks, including denial-of-service attacks, and must continuously monitor and develop systems to protect technology infrastructure and data from misappropriation or corruption. The Bank and its affiliates may face an increasing number of attempted cyber attacks as they expand their mobile- and other internet-based products and services, as well as usage of mobile and cloud technologies and as they provide more of these services to a greater number of retail clients. In addition, due to the Bank's interconnectivity with other GS Group entities, third-party vendors, central agents, exchanges, clearing houses and other financial institutions, the Bank could be adversely impacted if any of them is subject to a successful cyber attack or other information security event.

Despite efforts to ensure the integrity of its systems and information, the Bank and its affiliates may not be able to anticipate, detect or implement effective preventive measures against all cyber threats, especially because the techniques used are increasingly sophisticated, change frequently and are often not recognized until launched. Cyber attacks can originate from a variety of sources, including third parties who are affiliated with or supported by foreign governments or are involved with organized crime or terrorist organizations. Third parties may also attempt to place individuals within GS Group or induce employees, clients or other users of GS Group's systems to disclose sensitive information or provide access to GS Group's data or that of GS Group's clients, and these types of risks may be difficult to detect or prevent.

Although the Bank and GS Group take protective measures and endeavor to modify them as circumstances warrant, their computer systems, software and networks may be vulnerable to unauthorized access, misuse, computer viruses or other malicious code and other events that could have a security impact. Due to the complexity and interconnectedness of GS Group's systems, the process of enhancing GS Group's protective measures can itself create a risk of systems disruptions and security issues.

If one or more of such events occur, this potentially could jeopardize GS Group's or its clients' or counterparties' confidential and other information processed and stored in, and transmitted through, its computer systems and networks, or otherwise cause interruptions or malfunctions in GS Group's, its clients', its counterparties' or third parties' operations, which could impact their ability to transact with the Bank or otherwise result in significant losses or reputational damage.

The increased use of mobile and cloud technologies can heighten these and other operational risks. GS Group expects to expend significant additional resources on an ongoing basis to modify its protective measures and to investigate and remediate vulnerabilities or other exposures, but these measures may be ineffective and GS Group, including the Bank, may be subject to litigation and financial losses that are either not insured against or not fully covered through any insurance that it maintains. Certain aspects of the security of such technologies are unpredictable or beyond GS Group's control, and the failure by mobile technology and cloud service providers to adequately safeguard their systems and prevent cyber attacks could disrupt GS Group's operations and result in misappropriation, corruption or loss of confidential and other information.

In addition, there is a risk that encryption and other protective measures, despite their sophistication, may be defeated, particularly to the extent that new computing technologies vastly increase the speed and computing power available.

In addition, the issue of cyber security has been the subject of heightened regulatory scrutiny. On March 1, 2017, a robust cyber security regulation promulgated by the NYDFS became effective. The new rule requires covered entities, including the Bank, to, among other things, implement and maintain written cyber security policies and procedures covering a wide range of areas, including ensuring the security of sensitive data or systems accessible to third-party service providers, and provide notice to the NYDFS of certain material cyber security incidents.

The Bank routinely transmits and receives personal, confidential and proprietary information by email and other electronic means. GS Group has discussed and worked with clients, vendors, service providers, counterparties and other third parties to develop secure transmission capabilities and protect against cyber attacks, but it does not have, and may not be able to put in place, secure capabilities with all of its clients, vendors, service providers, counterparties and other third parties and GS Group may not be able to ensure that these third parties have appropriate controls in place to protect the confidentiality of the information. An interception, misuse or mishandling of personal, confidential or proprietary information being sent to or received from a client, vendor, service provider, counterparty or other third party could result in legal liability, regulatory action and reputational harm to the Bank.

***The application of regulatory strategies and requirements to facilitate the orderly resolution of large financial institutions could negatively affect the Bank and create risk of loss for the Bank's security holders.***

As described further in "Business — Regulation — Insolvency of an Insured Depository Institution" above, if the FDIC is appointed as receiver of the Bank under the FDI Act, the rights of the Bank's creditors would be determined under the FDI Act, and the claims of the Bank's creditors (other than its depositors) generally will be subordinated in right of payment to the claims of deposit holders.

In addition, rules adopted by the Federal Reserve Board and the FDIC under the Dodd-Frank Act require the Bank, as well as Group Inc., to submit periodic resolution plans. If the FDIC finds the Bank's resolution plan not credible, the FDIC will notify the Bank in writing, and the Bank then has 90 days to submit a revised resolution plan that corrects the deficiencies identified by the FDIC.

If the Federal Reserve Board and the FDIC find Group Inc.'s resolution plan not credible, they may require Group Inc. to hold more capital, change its business structure or dispose of businesses, any of which could have a negative impact on the Bank's financial condition, results of operations or competitive position.

***The financial services industry is both highly competitive and interrelated.***

The financial services industry and the Bank's activities are intensely competitive, and the Bank expects them to remain so. The Bank competes on the basis of a number of factors, including its products and services, innovation, reputation, creditworthiness and price. To the extent the Bank expands its activities, it will face competitors with more experience and more established relationships with clients, regulators and industry participants in the relevant market, which could adversely affect the Bank's ability to expand.

Governments and regulators have recently adopted regulations, imposed taxes, adopted compensation restrictions or otherwise put forward various proposals that have or may impact the Bank's ability to conduct certain of its activities in a cost-effective manner or at all in certain or all jurisdictions, including proposals relating to restrictions on the type of activities in which financial institutions are permitted to engage. These or other similar rules, many of which do not apply to all of the Bank's U.S. or non-U.S. competitors, could impact the Bank's ability to compete effectively.

Pricing and other competitive pressures in the Bank's business have continued to increase, particularly in situations where some of the Bank's competitors may seek to increase market share by reducing prices. For example, the Bank has experienced pressure to extend and price credit at levels that may not always fully compensate it for the risks it takes.

The financial services industry is highly interrelated in that a significant volume of transactions occur among a limited number of members of that industry. Many of the Bank's and GS Group's transactions are syndicated to other financial institutions and financial institutions are often counterparties in transactions. This has led to claims by other market participants and regulators that such institutions have colluded in order to manipulate markets or market prices, including allegations that antitrust laws have been violated.

While GS Group has extensive procedures and controls that are designed to identify and prevent such activities, allegations of such activities, particularly by regulators, can have a negative reputational impact and can subject the Bank to large fines and settlements, and potentially significant penalties, including treble damages. See "Substantial legal liability or significant regulatory action against the Bank or its affiliates could have material adverse financial effects or cause the Bank significant reputational harm, which in turn could seriously harm the Bank's business prospects."

***The Bank faces enhanced risks as new business initiatives lead it and its affiliates to transact with a broader array of clients and counterparties and expose the Bank and its affiliates to new assets, activities and markets.***

A number of the Bank's and GS Group's recent and planned business initiatives and expansions of existing businesses have and may continue to bring the Bank into contact, directly or indirectly, with individuals and entities that are not within the Bank's traditional client and counterparty base and expose the Bank to new asset classes, activities and markets. The Bank also continues to lend and transact business in new regions, including a wide range of emerging and growth markets.

The Bank has recently increased and intends to further increase its consumer-related deposit-taking and lending activities. As a result of increased consumer-related activities, the Bank could face additional compliance, legal and regulatory risk, increased reputational risk and increased operational risk due to, among other things, higher transaction volumes, greater reliance on third party vendors, increased volume of customer complaints, collections practices in relation to consumer-related lending activities, significantly increased retention requirements and transmission of customer and client information and increased regulatory compliance obligations (including under the CRA as noted below).

In addition, the Bank's expansion into consumer-related activities could result in a change to the Bank's CRA examination obligations. Any failure to comply with different or expanded CRA requirements could negatively impact the Bank's CRA ratings, cause reputational harm, and result in limits on the Bank's ability to make future acquisitions or further expand its activities. See "Business — Regulation — Community Reinvestment Act (CRA)" in Part I of this Annual Report for additional information.

New business initiatives expose the Bank to new and enhanced risks, including risks associated with dealing with governmental entities, reputational concerns arising from dealing with less sophisticated counterparties, clients and customers, greater regulatory scrutiny of these activities, increased credit-related, compliance, fraud, market, sovereign and operational risks, risks arising from accidents or acts of terrorism, and reputational concerns with the manner in which the Bank engages in these activities, interacts with these counterparties or addresses the product or service requirements of these new types of clients.

***Derivative transactions and delayed settlements may expose the Bank to unexpected risk and potential losses.***

The Bank is party to a large number of derivative transactions, including interest rate, credit, currency and other derivatives. Many of these derivative instruments are individually negotiated and non-standardized, which can make exiting, transferring or settling positions difficult. Many credit derivatives require that the Bank deliver to the counterparty the underlying security, loan or other obligation in order to receive payment. In a number of cases, the Bank does not hold the underlying security, loan or other obligation and may not be able to obtain the underlying security, loan or other obligation. This could cause the Bank to forfeit the payments due to it under these contracts or result in settlement delays with the attendant credit and operational risk as well as increased costs.

Derivative transactions may also involve the risk that documentation has not been properly executed, that executed agreements may not be enforceable against the counterparty, or that obligations under such agreements may not be able to be "netted" against other obligations with such counterparty. In addition, counterparties may claim that such transactions were not appropriate or authorized.

As a signatory to the ISDA Protocol, the Bank may not be able to exercise remedies against counterparties and, as this new regime has not yet been tested, the Bank may suffer risks or losses that it would not have expected to suffer if the Bank could immediately close out transactions upon a termination event. Various U.S. and non-U.S. regulators have proposed or adopted implementing regulations contemplated by the ISDA Protocol, and those implementing regulations may result in additional limitations on the Bank's ability to exercise remedies against counterparties. The ISDA Protocol's impact will depend on, among other things, how it is implemented and the development of market practice and structures under the implementing regulations.

Derivative contracts and other transactions, including secondary bank loan purchases and sales, entered into with third parties are not always confirmed by the counterparties or settled on a timely basis. While the transaction remains unconfirmed or during any delay in settlement, the Bank is subject to heightened credit and operational risk and in the event of a default, the Bank may find it more difficult to enforce its rights.

In addition, as new complex derivative products are created, covering a wider array of underlying credit and other instruments, disputes about the terms of the underlying contracts could arise, which could impair the Bank's ability to effectively manage its risk exposures from these products and subject the Bank to increased costs. The provisions of the Dodd-Frank Act requiring central clearing of credit derivatives and other OTC derivatives, or a market shift toward standardized derivatives, could reduce the risk associated with such transactions, but under certain circumstances could also limit the Bank's ability to develop derivatives that best suit the needs of its clients and to hedge its own risks, and could adversely affect the Bank's profitability and increase its credit exposure to such clearing platforms.

***The Bank's business may be adversely affected if it is unable to hire and retain qualified employees.***

The Bank's performance is largely dependent on the talents and efforts of highly skilled people; therefore, the Bank's continued ability to compete effectively in its business, to manage its business effectively and to expand into new lines of business depends on the ability of the Bank, and GS Group, to attract new talented and diverse employees and to retain and motivate existing employees.

Factors that affect the Bank's and GS Group's ability to attract and retain such employees include compensation and benefits, and GS Group's reputation as a successful business with a culture of fairly hiring, training and promoting qualified employees. As a significant portion of the compensation that GS Group pays to its employees is in the form of year-end discretionary compensation, a significant portion of which is in the form of deferred equity-related awards, declines in GS Group's profitability, or in the outlook for its future profitability, as well as regulatory limitations on compensation levels and terms, can negatively impact the Bank's and GS Group's ability to hire and retain highly qualified employees. Although the Bank has its own employees, employees of affiliates also provide services to the Bank under the Master Services Agreement.

Accordingly, negative impacts on GS Group's general ability to hire and retain qualified employees can adversely impact the Bank both directly and indirectly.

Competition from within the financial services industry and from businesses outside the financial services industry for qualified employees has often been intense. Recently, GS Group, including the Bank, has experienced increased competition in hiring and retaining employees to address the demands of new regulatory requirements.

Changes in law or regulation in jurisdictions in which the Bank's operations are located that affect taxes on its employees' income, or the amount or composition of compensation, may also adversely affect the Bank's ability to hire and retain qualified employees in those jurisdictions.

As described further in "Business — Regulation — Compensation Practices" above, GS Group's compensation practices are subject to review by, and the standards of, the Federal Reserve Board. As a large global financial and banking institution, GS Group is subject to limitations on compensation practices (which may or may not affect GS Group's competitors) by the Federal Reserve Board, the Prudential Regulation Authority, the Financial Conduct Authority, the FDIC and other regulators worldwide. These limitations, including any imposed by or as a result of future legislation or regulation, may require GS Group to alter its compensation practices in ways that could adversely affect its ability to attract and retain talented employees, which in turn could adversely affect the Bank.

***The ability-to-repay requirement for residential mortgage loans may limit the Bank's ability to sell certain of its mortgage loans and give borrowers potential claims against the Bank.***

The Dodd-Frank Act amended the Truth in Lending Act to require that mortgage lenders show that they have verified the borrower's ability to repay a residential mortgage loan.

Borrowers could possibly claim statutory damages against the Bank for violations of this requirement. Lenders of mortgages that meet a "qualified mortgage" standard have a safe harbor or a presumption of compliance with the requirement. Under final rules issued by the CFPB in January 2013 that became effective in January 2014, qualified mortgages cannot have negative amortization, interest-only payments, or balloon payments, terms over 30 years, or points and fees over certain thresholds. If institutional mortgage investors limit their mortgage purchases, demand for the Bank's non-qualifying mortgages in the secondary market may be significantly limited in the future.

The Bank does not currently intend to discontinue originating non-qualifying mortgages, and it may be liable to borrowers under non-qualifying mortgages for violations of the ability-to-repay requirement. Moreover, the Bank does not yet know how the qualifying mortgage requirements will impact the secondary market for sales of such mortgage loans.

Demand for the Bank's non-qualifying mortgages in the secondary market may therefore decline significantly in the future, which would limit the amount of loans the Bank can originate and in turn limit its ability to create new relationships and cross-selling opportunities, manage its growth and earn revenue from loan sales and servicing, all of which could adversely affect the Bank's financial condition and net earnings.

***Increases in FDIC insurance premiums may adversely affect the Bank's earnings.***

The deposits of the Bank are insured by the FDIC to the extent provided by law and, accordingly, the Bank is subject to FDIC deposit insurance assessments. The Bank generally cannot control the amount of premiums it will be required to pay for FDIC insurance. If there are financial institution failures or future losses that the DIF may suffer, the Bank may be required to pay higher FDIC premiums, or the FDIC may charge special assessments or require future prepayments. Further, the FDIC increased the DIF's long-term target reserve ratio to 2.0% of insured deposits following the Dodd-Frank Act's elimination of the 1.5% cap on the DIF's reserve ratio, and redefined the assessment base used to calculate deposit insurance premiums as the depository institution's average consolidated assets minus tangible equity, instead of the previous deposit-based assessment base.

In March 2016, the FDIC adopted a rule to apply an annual surcharge of 4.5 basis points on all banks with at least $10 billion in assets as a method of increasing its DIF reserve ratio. The surcharge applies equally to all institutions with $10 billion or more of assets, and does not differ based on the size or complexity of the institution, or the riskiness of its assets.

Additional increases in the Bank's assessment rate may be required in the future to achieve this targeted reserve ratio. These increases in deposit assessments and any future increases, required prepayments or special assessments of FDIC insurance premiums may adversely affect the Bank's business, financial condition or results of operations. See "Business — Regulation — FDIC Insurance" in Part I of this Annual Report for additional information.

***The Bank may be adversely affected by increased governmental and regulatory scrutiny or negative publicity.***

Governmental scrutiny from regulators, legislative bodies and law enforcement agencies with respect to matters relating to the Bank's or GS Group's business practices, past actions, compensation and other matters has increased dramatically in the past several years. The financial crisis and the current political and public sentiment regarding financial institutions has resulted in a significant amount of adverse press coverage, as well as adverse statements or charges by regulators or other government officials. Press coverage and other public statements that assert some form of wrongdoing (including, in some cases, press coverage and public statements that do not directly involve the Bank, GS Group or their affiliates) often result in some type of investigation by regulators, legislators and law enforcement officials or in lawsuits.

Responding to these investigations and lawsuits, regardless of the ultimate outcome of the proceeding, is time-consuming and expensive and can divert the time and effort of the Bank's senior management from its business. Penalties and fines sought by regulatory authorities have increased substantially over the last several years, and certain regulators have been more likely in recent years to commence enforcement actions or to advance or support legislation targeted at the financial services industry.

Adverse publicity, governmental scrutiny and legal and enforcement proceedings can also have a negative impact on the Bank's reputation and on the morale and performance of its employees, which could adversely affect the Bank's business and results of operations.

***Substantial legal liability or significant regulatory action against the Bank or its affiliates could have material adverse financial effects or cause the Bank significant reputational harm, which in turn could seriously harm the Bank's business prospects.***

The Bank is involved in a number of judicial, regulatory and other proceedings concerning matters arising in connection with the conduct of the Bank's business. See Note 16 to the consolidated financial statements in Part III of this Annual Report for information about certain mortgage-related contingencies and Note 22 to the consolidated financial statements in Part III of this Annual Report for information about certain legal and regulatory proceedings and investigations that impact the Bank.

The Bank faces the risk of investigations and proceedings by governmental and self-regulatory organizations in all jurisdictions in which it conducts its business. Interventions by authorities may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In addition to the monetary consequences, these measures could, for example, impact the Bank's ability to engage in, or impose limitations on, certain aspects of its business. Litigation or regulatory action at the level of other GS Group entities may also have an impact on the Bank, including limitations on activities and reputational harm. The number of these investigations and proceedings, as well as the amount of penalties and fines sought, has increased substantially in recent years with regard to many firms in the financial services industry, including GS Group. The trend of large settlements with governmental entities may adversely affect the outcomes for other financial institutions in similar actions, especially where governmental officials have announced that the large settlements will be used as the basis or a template for other settlements. The uncertain regulatory enforcement environment makes it difficult to estimate probable liabilities, and settlements of matters therefore frequently exceed the amount of any reserve established.

Certain enforcement authorities have recently required admissions of wrongdoing, and, in some cases, criminal pleas, as part of the resolutions of matters brought by them against financial institutions. Any such resolution of a matter involving the Bank or GS Group could lead to increased exposure to civil litigation, could adversely affect the Bank's reputation, could result in penalties or limitations on the Bank's ability to do business in certain jurisdictions and could have other negative effects.

In addition, the U.S. Department of Justice has announced a policy of requiring companies to provide investigators with all relevant facts relating to the individuals responsible for the alleged misconduct in order to qualify for any cooperation credit in civil and criminal investigations of corporate wrongdoing, which may result in the Bank incurring increased fines and penalties if the Department of Justice determines that the Bank has not provided sufficient information about applicable individuals in connection with an investigation, as well as increased costs in responding to Department of Justice investigations. Further, bank regulators have increasingly sought to hold individuals responsible for alleged misconduct, and it is possible that other governmental authorities will adopt similar policies.

***The Bank is subject to risks related to the violation of bribery, corruption and anti-money laundering laws and potential employee misconduct.***

The Bank is subject to rules and regulations relating to corrupt and illegal payments, hiring practices and money laundering, as well as laws relating to doing business with certain individuals, groups and countries, such as the U.S. Foreign Corrupt Practices Act, the USA PATRIOT Act and U.K. Bribery Act. While the Bank and GS Group have invested and continue to invest significant resources in training and in compliance monitoring, the geographical diversity of GS Group's operations, employees, clients and customers, as well as the vendors and other third parties that the Bank deals with, greatly increases the risk that the Bank may be found in violation of such rules or regulations and any such violation could subject the Bank to significant penalties or adversely affect its reputation.

In addition, there have been a number of highly publicized cases around the world, involving actual or alleged fraud or other misconduct by employees in the financial services industry in recent years, and the Bank is exposed to the risk that employee misconduct could occur. This misconduct has included and may include in the future the theft of proprietary information, including proprietary software. It is not always possible to deter or prevent employee misconduct and the precautions the Bank takes to prevent and detect this activity have not been and may not be effective in all cases.

***The Bank may incur losses as a result of unforeseen or catastrophic events, including the emergence of a pandemic, terrorist attacks, extreme weather events or other natural disasters.***

The occurrence of unforeseen or catastrophic events, including the emergence of a pandemic, such as the Ebola or Zika viruses, or other widespread health emergency (or concerns over the possibility of such an emergency), terrorist attacks, extreme terrestrial or solar weather events or other natural disasters, could create economic and financial disruptions, and could lead to operational difficulties (including travel limitations) that could impair the Bank's ability to manage its business.

# Part II. Management's Discussion and Analysis of Financial Condition and Results of Operations

## Introduction

Goldman Sachs Bank USA, together with its consolidated subsidiaries (collectively, the Bank), is a New York State-chartered bank and a member of the Federal Reserve System. The Bank is supervised and regulated by the Board of Governors of the Federal Reserve System (Federal Reserve Board), the New York State Department of Financial Services (NYDFS) and the U.S. Consumer Financial Protection Bureau (CFPB), and is a member of the Federal Deposit Insurance Corporation (FDIC). The Bank's deposits are insured by the FDIC up to the maximum amount provided by law. The Bank is registered with the U.S. Commodity Futures Trading Commission (CFTC) as a swap dealer and as a government securities dealer subject to the rules and regulations of the U.S. Department of the Treasury (Treasury).

The Bank's principal office is located in New York, New York. The Bank operates one domestic branch located in Salt Lake City, Utah, which is regulated by the Utah Department of Financial Institutions. The Bank also has a branch in London, United Kingdom, which is regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

The Bank is a wholly-owned subsidiary of The Goldman Sachs Group, Inc. (Group Inc.). Group Inc. is a bank holding company under the U.S. Bank Holding Company Act of 1956 (BHC Act), a financial holding company under amendments to the BHC Act effected by the U.S. Gramm-Leach-Bliley Act of 1999 and is subject to supervision and examination by the Federal Reserve Board.

The Bank's primary activities include lending, engaging in derivatives transactions and deposit taking. The Bank is a lender to private wealth management clients of Goldman Sachs & Co. (GS&Co.), to institutional and corporate clients, and to retail customers. The Bank enters into interest rate, credit, currency, commodity and equity derivatives and related products for the purpose of market making and risk management. The Bank accepts deposits from private wealth management clients, online retail customers and through deposit sweep programs and issues brokered certificates of deposit.

When we use the terms "the Bank," "we," "us" and "our," we mean Goldman Sachs Bank USA and its consolidated subsidiaries. When we use the term "GS Group," or "firmwide" we are referring to Group Inc. and its consolidated subsidiaries, including the Bank. References to revenue-producing units and control and support functions include activities performed by the Bank's employees, by dual employees (who are employees who perform services for both the Bank and another Group Inc. affiliate) and by affiliate employees under Bank supervision pursuant to a Master Services Agreement supplemented by Service Level Agreements (collectively, the Master Services Agreement) between the Bank and its affiliates.

All references to "this Annual Report," of which this Management's Discussion and Analysis forms a part, refers to the report dated March 20, 2017, as may be amended, and includes information relating to the Bank's business, the supervision and regulation to which it is subject, risk factors affecting its business, results of operations and financial condition, as well as the consolidated financial statements of the Bank.

References to "the consolidated financial statements" are to Part III of this Annual Report. All references to 2016 and 2015 refer to our years ended, or the dates, as the context requires, December 31, 2016 and December 31, 2015, respectively. Any reference to a future year refers to a year ending on December 31 of that year. Certain reclassifications have been made to previously reported amounts to conform to the current presentation.

In this discussion and analysis of our financial condition and results of operations, we have included information that may constitute "forward-looking statements." Forward-looking statements are not historical facts, but instead represent only our beliefs regarding future events, many of which, by their nature, are inherently uncertain and outside our control. These statements include statements other than historical information or statements of current condition and may relate to our future plans and objectives and results, among other things, and may also include statements about the effect of changes to the capital, leverage, liquidity, long-term debt and total loss-absorbing capacity rules applicable to banks and bank holding companies, the impact of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) on our business and operations, and various legal proceedings, governmental investigations or mortgage related-contingencies as set forth in Notes 16 and 22, respectively, to the consolidated financial statements in Part III of this Annual Report, as well as statements about the results of our Dodd-Frank Act and bank stress tests, statements about the objectives and effectiveness of our risk management and liquidity policies, statements about our resolution planning, statements about new business initiatives or trends in or growth opportunities for our business, and statements about our future status, activities or reporting under U.S. or non-U.S. banking and financial regulation and statements about the possible effects of the United Kingdom (U.K.) referendum vote to leave the European Union (E.U.).

By identifying these statements for you in this manner, we are alerting you to the possibility that our actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements. Important factors that could cause our actual results and financial condition to differ from those indicated in these forward-looking statements include, among others, those described in "Risk Factors" in Part I of this Annual Report.

## Executive Overview

We generated net earnings of $1.46 billion for 2016, a decrease of 13% compared with $1.68 billion for 2015.

Net revenues, including net interest income, were $3.26 billion for 2016, essentially unchanged compared with $3.27 billion for 2015, reflecting higher net interest income largely offset by lower net gains from financial instruments.

Net interest income was $1.52 billion for 2016, an increase of 9% compared with $1.40 billion for 2015, driven by growth in average lending, primarily to corporate clients and in cash deposits held at banks, partially offset by higher interest expense due to higher rates on increased average deposit balances.

Operating expenses were $1.10 billion for 2016, an increase of 37% compared with $803 million for 2015, reflecting higher service charges, compensation and benefits and other expenses primarily related to new business initiatives.

Net interest margin was 105 basis points for 2016, a decrease of 13 basis points compared with 118 basis points for 2015, primarily driven by increased excess liquidity that had yet to be deployed resulting from the acquisition of GE Capital Bank's online deposit platform.

Total assets were $159.11 billion as of December 2016, an increase of 18% compared with $134.50 billion as of December 2015. This increase primarily reflected an increase in cash deposits from the acquisition of GE Capital Bank's online deposit platform in April 2016 and from private wealth management clients. See Note 13 to the consolidated financial statements for further information about the GE Capital Bank transaction.

Our global core liquid assets (GCLA) were $85.35 billion as of December 2016, compared with $59.33 billion as of December 2015, driven by increases in cash deposits. See "Risk Management — Liquidity Risk Management — Liquidity Risk Management Principles — Global Core Liquid Assets" below for further information.

We continued to maintain strong capital ratios. As of December 2016, our Common Equity Tier 1 ratio as calculated in accordance with the Standardized approach and the Basel III Advanced approach, in each case reflecting the applicable transitional provisions, was 12.0% and 18.7%, respectively. See Note 17 to the consolidated financial statements and "Equity Capital Management and Regulatory Capital" below for further information about our applicable capital ratios.

## Business Environment

### United States

In the U.S., real gross domestic product (GDP) increased by 1.6% in 2016, compared with an increase of 2.6% in 2015, as growth in total fixed investment and consumer expenditures declined. Measures of consumer confidence were mixed on average compared with the prior year, but increased significantly in the fourth quarter. The unemployment rate declined to 4.7% at the end of 2016, and labor market indicators suggest the U.S. economy is close to full employment. Housing starts, sales, and prices increased compared with 2015, while measures of inflation also increased. The U.S. Federal Reserve raised its target rate for the federal funds rate at the December meeting to a range of 0.50% to 0.75%. The yield on the 10-year U.S. Treasury note increased by 18 basis points during 2016 to 2.45%. In equity markets, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite Index increased by 13%, 10% and 8%, respectively, during 2016.

### Global

During 2016, real GDP growth appeared to slow in advanced economies and appeared mixed in emerging market economies compared with 2015. In advanced economies, growth was lower in the U.S., the Euro area, the U.K. and Japan. In emerging markets, growth slowed in China and appeared to slow in India, while real GDP appeared to contract less in Brazil and Russia than in 2015. Monetary policy divergence continued in 2016, as the U.S. Federal Reserve increased its target interest rate again, while monetary policy remained accommodative in Europe and Japan. In June, a referendum was passed for the U.K. to exit the E.U., and in November, the U.S. held its presidential election. The market reaction to the outcomes of both events was generally more positive than expectations. The price of crude oil (WTI) increased by 45% in 2016 and, in the fourth quarter, OPEC members announced an agreement to reduce oil production.

## Critical Accounting Policies

### Loans Receivable

Loans receivable in the consolidated statements of financial condition is comprised of:

- Loans held for investment that are accounted for at amortized cost net of allowance for loan losses. Interest on such loans is recognized over the life of the loan and is recorded on an accrual basis, and
- Loans held for sale which are accounted for at the lower of cost or market.

The Bank assesses its loans for impairment on an ongoing basis through its credit review process. A credit review is an independent analysis of the capacity and willingness of a borrower to meet its financial obligations, resulting in an internal credit rating. The Bank also assigns a regulatory risk rating to such loans based on the definitions provided by the U.S. federal bank regulatory agencies. Such loans are determined to be impaired when it is probable that the Bank will not be able to collect all principal and interest due under the contractual terms of the loan. At that time, loans are generally placed on non-accrual status, all accrued but uncollected interest is reversed against interest income, and interest subsequently collected is recognized on a cash basis to the extent the loan balance is deemed collectible. Otherwise, all cash received is used to reduce the outstanding loan balance.

The Bank's allowance for loan losses is comprised of specific loan-level reserves and portfolio level reserves. Specific loan-level reserves are determined on loans that exhibit credit quality weakness and are therefore individually evaluated for impairment. Portfolio level reserves are determined on loans not deemed impaired by aggregating groups of loans with similar risk characteristics and estimating the probable loss inherent in the portfolio.

See Note 9 to the consolidated financial statements for further information about loans receivable.

### Fair Value

**Fair Value Hierarchy.** Financial instruments owned, at fair value and Financial instruments sold, but not yet purchased, at fair value (i.e., inventory), as well as certain other financial assets and financial liabilities, are reflected in our consolidated statements of financial condition at fair value (i.e., marked-to-market), with related gains or losses generally recognized in our consolidated statements of earnings.

The fair value of a financial instrument is the amount 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. We measure certain financial assets and financial liabilities as a portfolio (i.e., based on its net exposure to market and/or credit risks). In determining fair value, the hierarchy under U.S. generally accepted accounting principles (U.S. GAAP) gives (i) the highest priority to unadjusted quoted prices in active markets for identical, unrestricted assets or liabilities (level 1 inputs), (ii) the next priority to inputs other than level 1 inputs that are observable, either directly or indirectly (level 2 inputs), and (iii) the lowest priority to inputs that cannot be observed in market activity (level 3 inputs). In evaluating the significance of a valuation input, we consider, among other factors, a portfolio's net risk exposure to that input. Assets and liabilities are classified in their entirety based on the lowest level of input that is significant to their fair value measurement.

The fair values for substantially all of our financial assets and financial liabilities are based on observable prices and inputs and are classified in levels 1 and 2 of the fair value hierarchy. Certain level 2 and level 3 financial assets and financial liabilities may require appropriate valuation adjustments that a market participant would require to arrive at fair value for factors such as counterparty and the Bank or its affiliates' credit quality, funding risk, transfer restrictions, liquidity and bid/offer spreads.

Instruments categorized within level 3 of the fair value hierarchy are those which require one or more significant inputs that are not observable. As of both December 2016 and December 2015, level 3 financial assets represented 1.8% of our total assets. See Notes 5 through 8 to the consolidated financial statements for further information about level 3 financial assets, including changes in level 3 financial assets and related fair value measurements. Absent evidence to the contrary, instruments classified within level 3 of the fair value hierarchy are initially valued at transaction price, which is considered to be the best initial estimate of fair value. Subsequent to the transaction date, we use other methodologies to determine fair value, which vary based on the type of instrument. Estimating the fair value of level 3 financial instruments requires judgments to be made. These judgments include:

- Determining the appropriate valuation methodology and/or model for each type of level 3 financial instrument;
- Determining model inputs based on an evaluation of all relevant empirical market data, including prices evidenced by market transactions, interest rates, credit spreads, volatilities and correlations; and
- Determining appropriate valuation adjustments, including those related to illiquidity or counterparty credit quality.

Regardless of the methodology, valuation inputs and assumptions are only changed when corroborated by substantive evidence.

### Controls Over Valuation of Financial Instruments

The Bank leverages GS Group's control infrastructure over valuation of financial instruments, which is described below. Market makers and investment professionals in revenue-producing units are responsible for pricing our financial instruments. GS Group's control infrastructure is independent of the revenue-producing units and is fundamental to ensuring that all of our financial instruments are appropriately valued at market-clearing levels. In the event that there is a difference of opinion in situations where estimating the fair value of financial instruments requires judgment (e.g., calibration to market comparables or trade comparison, as described below), the final valuation decision is made by senior managers in control and support functions. This independent price verification is critical to ensuring that our financial instruments are properly valued.

### Price Verification

All financial instruments at fair value in levels 1, 2 and 3 of the fair value hierarchy are subject to an independent price verification process. The objective of price verification is to have an informed and independent opinion with regard to the valuation of financial instruments under review. Instruments that have one or more significant inputs which cannot be corroborated by external market data are classified within level 3 of the fair value hierarchy. Price verification strategies utilized by our independent control and support functions include:

- **Trade Comparison.** Analysis of trade data (both internal and external where available) is used to determine the most relevant pricing inputs and valuations.
- **External Price Comparison.** Valuations and prices are compared to pricing data obtained from third parties (e.g., brokers or dealers, Markit, Bloomberg, IDC, TRACE). Data obtained from various sources is compared to ensure consistency and validity. When broker or dealer quotations or third-party pricing vendors are used for valuation or price verification, greater priority is generally given to executable quotations.

- **Calibration to Market Comparables.** Market-based transactions are used to corroborate the valuation of positions with similar characteristics, risks and components.
- **Relative Value Analyses.** Market-based transactions are analyzed to determine the similarity, measured in terms of risk, liquidity and return, of one instrument relative to another or, for a given instrument, of one maturity relative to another.
- **Collateral Analyses.** Margin calls on derivatives are analyzed to determine implied values which are used to corroborate our valuations.
- **Execution of Trades.** Where appropriate, trading desks are instructed to execute trades in order to provide evidence of market-clearing levels.
- **Backtesting.** Valuations are corroborated by comparison to values realized upon sales.

See Notes 5 through 8 to the consolidated financial statements for further information about fair value measurements.

### Review of Net Revenues

Independent control and support functions ensure adherence to GS Group's pricing policy through a combination of daily procedures, including the explanation and attribution of net revenues based on the underlying factors. Through this process, we independently validate net revenues, identify and resolve potential fair value or trade booking issues on a timely basis and seek to ensure that risks are being properly categorized and quantified.

### Review of Valuation Models

A model risk management group (Model Risk Management), consisting of quantitative professionals who are separate from model developers, performs an independent model review and validation process of valuation models. New or changed models are reviewed and approved prior to being put into use. Models are evaluated and re-approved annually to assess the impact of any changes in the product or market and any market developments in pricing theories. See "Risk Management — Model Risk Management" for further information about the review and validation of valuation models.

## Recent Accounting Developments

See Note 3 to the consolidated financial statements for information about Recent Accounting Developments.

## Use of Estimates

The use of generally accepted accounting principles requires management to make certain estimates and assumptions. In addition to the estimates we make in connection with provisions for losses that may arise from the allowance for losses on loans and lending commitments held for investment, the use of estimates and assumptions is also important in determining fair value measurements, litigation, regulatory proceedings, including governmental investigations, and tax audits. Significant judgment is required in making these estimates and our final liabilities may ultimately be materially different.

We estimate and record an allowance for credit losses related to our loans receivable and lending commitments held for investment. Management's estimate of loan losses entails judgment about loan collectability at the reporting dates, and there are uncertainties inherent in those judgments. See Note 9 to the consolidated financial statements for further information about the allowance for losses on loans and lending commitments held for investment.

In accounting for income taxes, we recognize tax positions in the financial statements only when it is more likely than not that the position will be sustained on examination by the relevant taxing authority based on the technical merits of the position. See Note 20 to the consolidated financial statements for further information about accounting for income taxes.

Any estimated liability in respect of litigation and regulatory proceedings is determined on a case-by-case basis and represents an estimate of probable losses after considering the progress of each case, proceeding or investigation, our experience and the experience of others in similar cases, proceedings or investigations and the opinions and views of legal counsel. See Note 22 to the consolidated financial statements for further information about certain judicial, litigation and regulatory proceedings.

## Results of Operations

The composition of our net revenues has varied over time as financial markets and the scope of our operations have changed. The composition of net revenues can also vary over the shorter term due to fluctuations in economic and market conditions. In addition to transactions entered into with third parties, the Bank also enters into transactions with affiliates in the normal course of business, primarily as part of its market-making activities and general operations. See "Risk Factors" in Part I of this Annual Report for further information about the impact of economic and market conditions on our results of operations.

### Financial Overview

The table below presents an overview of our financial results and selected financial ratios. In the table below, return on average shareholder's equity is calculated by dividing net earnings by average monthly shareholder's equity.

| | Year Ended December | |
|---|---|---|
| *$ in millions, except ratios* | **2016** | 2015 |
| Net revenues | **$ 3,264** | $ 3,265 |
| Pre-tax earnings | **2,163** | 2,462 |
| Net earnings | **1,458** | 1,682 |
| Net earnings to average assets | **0.9%** | 1.3% |
| Return on average shareholder's equity | **6.1%** | 7.6% |
| Average equity to average assets | **15.0%** | 16.7% |

### Net Revenues

The table below presents our net revenues by line item in the consolidated statements of earnings, as well as our net interest margin.

| | Year Ended December | |
|---|---|---|
| *$ millions, except net interest margin* | **2016** | 2015 |
| Interest income | **$ 2,702** | $ 2,049 |
| Interest expense | **1,183** | 650 |
| Net interest income | **1,519** | 1,399 |
| Non-interest revenues | **1,745** | 1,866 |
| **Net revenues, including net interest income** | **$ 3,264** | $ 3,265 |
| Net interest margin (basis points) | **105** | 118 |

In the table above:

- Interest income is primarily generated from the Bank's lending portfolio, consisting of corporate lending, private bank lending and other lending inclusive of its online lending platform, Marcus by Goldman Sachs™ (Marcus). Corporate lending interest income includes income from term loans, revolving lines of credit, letter of credit facilities and bridge loans (collectively, "bank loans").

  Private bank lending interest income includes income from loans to private wealth management clients primarily on a secured basis and secured residential mortgages. Other lending interest income includes interest from unsecured, fixed-rate installment loans made through Marcus. Interest income is also earned from certain financial instruments owned, at fair value and securities purchased under agreements to resell. In addition, interest is earned on cash deposits held primarily at the Federal Reserve Bank of New York (FRBNY), and from collateral balances posted to counterparties.

- Interest expense includes the interest associated with deposit-taking activities, including accepting deposits directly from private wealth management clients, through deposit sweep agreements with third-party broker-dealers, through the issuance of term certificates of deposit and directly from retail customers through our online deposit platform that was acquired from GE Capital Bank. The Bank applies hedge accounting for certain interest rate swaps used to manage the interest rate exposure of certain fixed-rate term certificates of deposit. For qualifying fair value hedges, gains and losses on derivatives are included in interest expense. See Note 7 to the consolidated financial statements for further information about hedge accounting.

  Interest expense also includes interest from certain financial instruments sold, but not yet purchased, at fair value (including cash instruments), collateralized financings (including interest on advances from the Federal Home Loan Bank of New York (FHLB), unsecured borrowings (including funding facilities primarily from affiliates) and collateral balances received from counterparties.

- Non-interest revenues include net gains and losses from financial instruments that are generated from market-making and risk management activities in interest rate, currency, credit, commodity and equity derivatives and related products which are primarily accounted for at fair value. In addition, non-interest revenues primarily include fees earned from relationships with affiliates, loan syndication fees and other fees, offset by provisions for losses on loans and lending commitments.

***2016 versus 2015***

Net revenues in the consolidated statements of earnings were $3.26 billion for 2016, essentially unchanged compared with $3.27 billion for 2015, reflecting higher net interest income largely offset by lower net gains from financial instruments.

**Net Interest Income.** Net interest income in the consolidated statements of earnings was $1.52 billion for 2016, 9% higher than 2015. Net interest income was 47% of net revenues in 2016, compared with 43% in 2015. See below for further information about interest income and interest expense.

**Interest Income.** Interest income in the consolidated statements of earnings was $2.70 billion for 2016, 32% higher than 2015. See below and "Supplemental Financial Information – Distribution of Assets, Liabilities and Shareholder's Equity" for further information about our sources of interest income, including average balances and rates.

The table below presents our sources of interest income.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Loans receivable | **$ 1,133** | $ 865 |
| Financial instruments owned, at fair value | **836** | 887 |
| Securities purchased under agreements to resell | **109** | 78 |
| Deposits with banks | **362** | 128 |
| Other | **262** | 91 |
| **Total interest income** | **$ 2,702** | $ 2,049 |

In the table above:

- Interest income from loans receivable was $1.13 billion for 2016, 31% higher than 2015, primarily due to growth in average lending to corporate and private wealth management clients and higher interest rates. See Note 9 to the consolidated financial statements for further information about loans receivable.
- Interest income from financial instruments owned, at fair value includes interest income from U.S government and federal agency obligations accounted for at fair value. See Note 4 to the consolidated financial statements for further information about financial instruments owned, at fair value. Interest income from financial instruments owned, at fair value, also includes interest income from our loans accounted for at fair value. See Note 8 to the consolidated financial statements for further information about loans accounted for at fair value. Interest income from financial instruments owned, at fair value was $836 million for 2016, 6% lower than 2015, primarily due to lower average holdings of corporate loans.
- Interest income from securities purchased under agreements to resell was $109 million for 2016, 40% higher than 2015, primarily due to higher interest rates.
- Interest income from deposits with banks was $362 million for 2016, significantly higher than 2015, primarily due to increases in cash deposits held at the FRBNY, where substantially all of the Bank's cash is held, related to the acquisition of GE Capital Bank's online deposit platform and higher interest rates at the FRBNY. See Note 3 to the consolidated financial statements for further information about our cash.
- Other interest income includes interest income from loans accounted for as held for sale and collateral balances posted to counterparties. Other interest income was $262 million for 2016, significantly higher than 2015, primarily due to higher interest rates and higher average balances of both loans accounted for as held for sale and collateral posted to counterparties.

**Interest Expense.** Interest expense in the consolidated statements of earnings was $1.18 billion for 2016, 82% higher than 2015. See below and "Supplemental Financial Information – Distribution of Assets, Liabilities and Shareholder's Equity" for further information about our sources of interest expense, including average balances and rates.

The table below presents our sources of interest expense.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Deposits | **$ 803** | $ 363 |
| Borrowings | **71** | 56 |
| Financial instruments sold, but not yet purchased, at fair value | **37** | 44 |
| Other | **272** | 187 |
| **Total interest expense** | **$ 1,183** | $ 650 |

In the table above:

- Interest expense from deposits was $803 million for 2016, significantly higher than 2015, primarily from higher interest rates and higher average deposit balances related to the acquisition of GE Capital Bank's online deposit platform.
- Interest expense from borrowings was $71 million for 2016, 27% higher than 2015, primarily from higher interest rates and higher average FHLB advances.
- Interest expense from financial instruments sold, but not yet purchased, at fair value was $37 million for 2016, 16% lower than 2015, primarily from lower average interest rates.
- Other interest expense primarily includes interest expense on collateral balances received from counterparties and expense on funding facilities, primarily from affiliates. Other interest expense was $272 million for 2016, 45% higher than 2015, primarily from higher average collateral received from counterparties and higher interest rates.

**Non-Interest Revenues.** Non-interest revenues were $1.75 billion for 2016, 6% lower than 2015. The decrease was primarily due to lower net gains from financial instruments, reflecting lower revenues from credit products.

**Net Interest Margin.** Net interest margin decreased by 13 basis points to 105 basis points for 2016, compared with 118 basis points for 2015, primarily driven by increased excess liquidity that had yet to be deployed.

### Operating Expenses

Our operating expenses are primarily influenced by levels of compensation, headcount and levels of business activity. The principal component of our operating expenses is service charges, which represent the cost of services provided by affiliates to the Bank. Service charges include employment related costs of dual employees and employees of affiliates pursuant to the Master Services Agreement. Compensation and benefits includes salaries, discretionary compensation, amortization of equity awards and other items such as benefits. Compensation and benefits relate to direct Bank employees. Discretionary compensation is significantly impacted by, among other factors, GS Group's overall financial performance, prevailing labor markets, business mix, the structure of GS Group's share-based compensation programs and the external environment.

The table below presents our operating expenses and total staff (which includes employees, consultants and temporary staff).

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Compensation and benefits | **$ 234** | $ 162 |
| Service charges | **523** | 442 |
| Other expenses | **344** | 199 |
| **Total operating expenses** | **$ 1,101** | $ 803 |
| Total staff at period-end | **861** | 429 |

In the table above:

- Compensation and benefits and service charges include employee-related expenses. As described above, compensation and benefits are expenses of direct Bank employees. Service charges includes expenses related to dual employees and employees of affiliates who provide services to the Bank pursuant to the Master Services Agreement.
- Other expenses include brokerage, clearing and exchange fees, professional fees, regulatory and agency fees and occupancy expenses.

### *2016 versus 2015*

Operating expenses in the consolidated statements of earnings were $1.10 billion for 2016, 37% higher than 2015. Compensation and benefits expenses in the consolidated statements of earnings were $234 million for 2016, 44% higher than 2015, reflecting an increase in total staff, primarily related to new business initiatives.

Service charges in the consolidated statements of earnings were $523 million for 2016, 18% higher than 2015, primarily reflecting an increase in services rendered for new business initiatives and an increase in fees charged for services required under the Master Services Agreement.

Other expenses in the consolidated statements of earnings were $344 million for 2016, 73% higher than 2015, reflecting an increase in both marketing and professional fees, primarily related to new business initiatives, as well as an increase in regulatory and other fees.

We expect operating expenses will continue to increase as we launch new business initiatives and grow our business, primarily as a result of the need to increase total staff and expand the scope of services provided through the Master Services Agreement in order to support our new initiatives.

### Provision for Taxes

The effective income tax rate for 2016 was 32.6%, up from 31.7% for 2015. The increase compared with 2015 was primarily due to the reduced impact of settlements of tax audits in 2016, partially offset by non-deductible losses and the impact of changes in tax law on deferred tax assets in 2015.

In October 2016, the U.S. Department of the Treasury issued rules under Section 385 of the Internal Revenue Code that could, in some circumstances, re-characterize debt as equity for U.S. federal income tax purposes. The rules contain exclusions applicable to, among other things, debt instruments issued by regulated financial companies, non-U.S. subsidiaries, certain U.S. subsidiaries where the holder of the debt instrument is included in a consolidated U.S. tax return, and ordinary business transactions. The rules also contain exclusions applicable to members of a regulated financial group other than subsidiaries held under the merchant banking authority, grandfathered commodities, or complementary activities under the BHC Act. These exceptions would exclude from re-characterization substantially all debt instruments issued by us. The Bank does not expect these rules to have a material impact on its financial condition, results of operations, effective income tax rate or cash flows.

## Balance Sheet and Funding Sources

### Balance Sheet Management

One of the risk management disciplines for a financial institution is its ability to manage the size and composition of its balance sheet. The Bank leverages the firmwide balance sheet management process. While the asset base of the Bank changes due to client activity, market fluctuations and business opportunities, the size and composition of the balance sheet also reflects factors including (i) overall risk tolerance, (ii) the amount of equity capital held and (iii) the funding profile, among other factors. See "Equity Capital Management and Regulatory Capital — Equity Capital Management" for information about our equity capital management process.

In order to ensure appropriate risk management, we seek to maintain a sufficiently liquid balance sheet and, together with GS Group, have processes in place to dynamically manage assets and liabilities which include (i) balance sheet planning, (ii) business-specific limits for the businesses of GS Group, which include the activities of the Bank, (iii) monitoring of key metrics and (iv) scenario analyses.

**Balance Sheet Planning.** GS Group prepares a balance sheet plan that combines projected total assets and composition of assets with its expected funding sources over a one-year time horizon. This plan is reviewed semi-annually and may be adjusted in response to changing business needs or market conditions. Within this process and with the involvement of Bank Finance, GS Group also considers which businesses operate within the Bank and the availability of Bank-specific funding sources. The objectives of this planning process are:

- To develop balance sheet projections, taking into account the general state of the financial markets and expected business activity levels, as well as regulatory requirements;
- To allow GS Group's business risk managers and managers from independent control and support functions to objectively evaluate balance sheet limit requests from business managers in the context of GS Group's overall balance sheet constraints, including the Bank's and GS Group's liability profile and equity capital levels, and key metrics; and
- To inform the target amount, tenor and type of funding to raise, based on projected assets and contractual maturities.

Business risk managers and managers from our independent control and support functions meet with business managers to review current and prior period information and discuss expectations for the year to prepare our balance sheet plan. The specific information reviewed includes asset and liability size and composition, limit utilization, risk and performance measures, and capital usage. Within this process, GS Group also considers which businesses operate within the Bank and the availability of Bank-specific funding sources and capital constraints.

As part of the firmwide process, the consolidated balance sheet plan is reviewed and approved by the Firmwide Finance Committee, which includes Bank representatives, and is a sub-committee of the Firmwide Risk Committee of GS Group.

The review includes balance sheet plans by businesses of GS Group, including planned activities in the Bank; funding projections and projected key metrics.

The Bank's limits are reviewed and approved by the Bank Asset Liability Committee. See "Risk Management — Overview and Structure of Risk Management" for an overview of our risk management structure.

**Business-Specific Limits.** The Firmwide Finance Committee sets asset and liability limits for each of GS Group's businesses, which include activities of the Bank. These limits are set at levels which are close to actual operating levels, rather than at levels which reflect GS Group's or our maximum risk appetite, in order to ensure prompt escalation and discussion among business managers and managers in independent control and support functions on a routine basis. The Firmwide Finance Committee, as well as the Bank Asset Liability Committee where applicable to the Bank, review and approve limits on a semi-annual basis and may also approve changes in limits on a more frequent basis in response to changing business needs or market conditions. In addition, the GS Group Risk Governance Committee sets aged inventory limits for certain financial instruments, including the financial instruments of the Bank, as a disincentive to hold inventory over longer periods of time. Requests for changes in limits are evaluated after giving consideration to their impact on key metrics. Compliance with limits is monitored on a daily basis by business risk managers, as well as managers in independent control and support functions.

**Monitoring of Key Metrics.** Key balance sheet metrics are monitored daily as part of the GS Group process, both by businesses of GS Group, which include activities of the Bank, and on a consolidated basis, including limit utilization and risk measures. This includes allocating assets to businesses and reviewing movements resulting from new business activity and market fluctuations.

**Scenario Analyses.** The Bank conducts scenario analyses as part of the Dodd-Frank Act Stress Tests (DFAST), and its resolution planning, as well as for other regulatory and business planning purposes. See "Equity Capital Management and Regulatory Capital — Equity Capital Management" below for further information about these scenario analyses. These scenarios cover short-term and long-term time horizons using various macroeconomic and Bank-specific assumptions, based on a range of economic scenarios. We use these analyses to assist us in developing our longer-term balance sheet management strategy, including the level and composition of assets, funding and equity capital. Additionally, these analyses help us develop approaches for maintaining appropriate funding, liquidity and capital across a variety of situations, including a severely stressed environment.

### Balance Sheet Analysis and Metrics

As of December 2016, total assets in the consolidated statements of financial condition were $159.11 billion, an increase of $24.61 billion from December 2015. This increase was driven by an increase in cash, primarily due to an increase in deposit balances resulting from the Bank's acquisition of GE Capital Bank. This increase was slightly offset by a decrease in financial instruments owned, at fair value, primarily from a decrease in our lending portfolio accounted for at fair value.

As of December 2016, total liabilities in the consolidated statements of financial condition were $134.50 billion, an increase of $23.18 billion from December 2015. This increase was driven by an increase in deposits reflecting the acquisition of GE Capital Bank's deposits and increases in private bank deposits and deposits from affiliates.

### Funding Sources

Our primary sources of funding are deposits, collateralized financings, and unsecured borrowings from affiliates. We seek to maintain broad and diversified funding sources across products, programs, and creditors to avoid funding concentrations.

We raise funding through a number of different sources, including:

- Savings and demand deposits sourced through deposit sweep programs with affiliated and third-party broker-dealers, online savings accounts and affiliate deposit accounts;
- Time deposits, substantially all of which are brokered certificates of deposit received through third party and affiliated brokers and non-brokered certificates of deposit sourced from online retail customers;
- Collateralized financings, such as repurchase agreements and FHLB advances; and
- Unsecured borrowings from affiliates.

Substantially all of our funding is raised in U.S. dollars. We generally distribute our funding products through third party distributions and private wealth advisors, to a creditor base in a variety of markets and, with respect to our online deposit platform, directly to retail customers. We believe that our relationships with our creditors are critical to our liquidity. Our creditors include individuals, financial institutions, non-financial institutions, corporations and asset managers. We have imposed various internal guidelines to monitor creditor concentration across our funding programs.

**Deposits**. Our deposits provide us with a diversified source of liquidity and reduce our reliance on wholesale funding. A growing source of our deposit base is comprised of retail deposits. Deposits are primarily used to finance lending activity, other inventory and a portion of our GCLA. As of December 2016 and December 2015, the Bank's deposits were $114.99 billion and $88.28 billion, respectively.

The average interest rate on the Bank's total deposits was 0.74% and 0.43% for 2016 and 2015, respectively. The table below presents the average interest rate on each type of deposit.

| | Year Ended December | |
|---|---|---|
| | **2016** | 2015 |
| Savings and demand | **0.47%** | 0.22% |
| Time | **1.08%** | 0.76% |

See "Supplemental Financial Information — Distributions of Assets, Liabilities, and Shareholder's Equity" and Note 13 to our consolidated financial statements for further information about deposits.

**Collateralized Financings.** The Bank funds certain of its inventory on a secured basis by entering into collateralized financing agreements, such as bilateral repurchase agreements. The Bank is a member of the FHLB. Outstanding borrowings from the FHLB were $2.43 billion and $2.92 billion as of December 2016 and December 2015, respectively. See Note 10 to our consolidated financial statements for further information about collateralized financings.

We also have access to funding through the Federal Reserve Bank discount window. While we do not rely on this funding in our liquidity planning and stress testing, we maintain policies and procedures necessary to access this funding and we periodically test the discount window borrowing procedures. The table below presents the Bank's collateralized financings in the consolidated statements of financial condition.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Securities sold under agreements to repurchase, at fair value | **$ 310** | $ 3,425 |
| Secured long-term borrowings | **2,066** | 2,524 |
| Secured short-term borrowings | **503** | 502 |
| **Total** | **$ 2,879** | $ 6,451 |

**Unsecured Borrowings.** The Bank raises funding through unsecured borrowings primarily from Group Inc. Group Inc. raises non-deposit unsecured funding and lends to its consolidated subsidiaries, including the Bank, to meet their excess funding needs. This approach enhances the flexibility with which Group Inc. can meet the funding requirements of the Bank and other subsidiaries. See Note 14 to the consolidated financial statements for further information about our unsecured borrowings.

The table below presents the Bank's unsecured borrowings, substantially all of which are with Group Inc. and other affiliates.

In the table below, unsecured long-term borrowings includes a $5.00 billion revolving subordinated loan agreement with Group Inc. Outstanding subordinated borrowings under this agreement were $2.00 billion as of both December 2016 and December 2015. See Note 14 to the consolidated financial statements for further information about our subordinated borrowings.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Unsecured long-term borrowings | **$ 2,133** | $ 2,059 |
| Unsecured short-term borrowings | **120** | 100 |
| **Total** | **$ 2,253** | $ 2,159 |

The Bank has a committed senior unsecured credit line with Group Inc. The credit line was $8.50 billion as of December 2016. In February 2017, the credit line was amended to a $4.0 billion facility.

## Equity Capital Management and Regulatory Capital

Capital adequacy is of critical importance to us. We have in place a comprehensive capital management policy that provides a framework, defines objectives and establishes guidelines to assist us in maintaining the appropriate level and composition of capital in both business-as-usual and stressed conditions.

### Equity Capital Management

We determine the appropriate level and composition of our equity capital by considering multiple factors including our current and future consolidated regulatory capital requirements, the results of our capital planning and stress testing process and other factors such as rating agency guidelines, the business environment and conditions in the financial markets. The Bank has established a comprehensive governance structure for capital management decisions, as articulated in its capital management policy. Capital management activity is overseen by the Bank's Board of Directors (the Bank Board) and the Bank Asset Liability Committee reviews capital levels monthly. Levels of capital usage are controlled principally by setting limits on Bank unsecured funding utilization and/or limits on risk at both the Bank and business levels.

### Restrictions on Payments

Net assets of the Bank are restricted as to the payment of dividends to Group Inc. In addition to limitations on the payment of dividends imposed by federal and state laws, and other capital management decisions, the Federal Reserve Board and the FDIC have authority to prohibit or limit the payment of dividends by the banking organizations they supervise if, in their opinion, payment of a dividend would constitute an unsafe or unsound practice in light of the financial condition of the banking organization and, pursuant to applicable Federal Reserve Board regulations (the amount of dividends paid is limited to the lesser of the amounts calculated under a recent earnings test and an undivided profits test). During 2016 and 2015, the Bank did not pay any dividends. Under the applicable Federal Reserve Board regulations, as of December 2016 and December 2015, the Bank could have declared dividends up to $4.46 billion and $2.39 billion, respectively, to Group Inc.

In addition to the recent earnings test and undivided profits test, capital management decisions, including the payment of dividends, are also driven by the Bank's required capital levels and the capital management policy discussed above.

The Bank may declare dividends in the future, subject to board approval, applicable regulatory requirements, and other considerations.

**Capital Planning and Stress Testing Process.** As part of capital planning, we project sources and uses of capital given a range of business environments, including stressed conditions. Our stress testing process is designed to identify and measure material risks associated with our business activities including market risk, credit risk and operational risk, as well as our ability to generate revenues.

The following is a description of our capital planning and stress testing process:

- **Capital Planning.** Our capital planning process incorporates an assessment of capital adequacy with the objective of ensuring that the Bank is appropriately capitalized relative to the risks in our business. We incorporate stress scenarios into our capital planning process with a goal of holding sufficient capital to ensure we remain adequately capitalized after experiencing a severe stress event. Our assessment of capital adequacy is viewed in tandem with our assessment of liquidity adequacy and is integrated into our overall risk management structure, governance and policy framework.

- **Stress Testing.** Our stress tests incorporate our internally designed stress scenarios, including our internally developed severely adverse scenario and those required under DFAST, and are designed to capture our specific vulnerabilities and risks. The rules adopted by the Federal Reserve Board under the Dodd-Frank Act require the Bank to conduct stress tests on an annual basis and publish a summary of certain results. The Bank submitted its 2016 annual DFAST stress results to the Federal Reserve Board in April 2016 and published a summary of its results in June 2016.

**Contingency Capital Plan.** As part of our comprehensive capital management policy, we maintain a contingency capital plan. Our contingency capital plan provides a framework for analyzing and responding to a perceived or actual capital deficiency, including, but not limited to, identification of drivers of a capital deficiency, as well as mitigants and potential actions. It outlines the appropriate communication procedures to follow during a crisis period, including internal dissemination of information as well as timely communication with external stakeholders.

### Resolution Plan

The Bank is required by the FDIC to submit a periodic plan that describes our strategy for a rapid and orderly resolution in the event of material financial distress or failure (resolution plan). The Bank submitted its 2015 resolution plan to its regulators on September 1, 2015. The Bank has not yet received supervisory feedback on its 2015 resolution plan. In July 2016, the Bank received notification from the FDIC that its resolution plan submission date was extended to October 1, 2017 and the 2016 resolution plan requirement will be satisfied by the submission of the 2017 resolution plan.

GS Group is required by the Federal Reserve Board and the FDIC to submit a periodic resolution plan and the Bank is considered a material operating entity in the GS Group plan. See "Business — Regulation" in Part I of this Annual Report for further information about the resolution plan of the Bank.

In April 2016, the Federal Reserve Board and the FDIC provided feedback on Group Inc.'s 2015 resolution plan. While Group Inc.'s plan was not jointly found to be deficient (i.e., non-credible or to not facilitate an orderly resolution under the U.S. Bankruptcy Code), the FDIC identified deficiencies and both the FDIC and Federal Reserve Board also identified certain shortcomings. To the extent that Group Inc.'s resolution plan is found to be deficient in the future, it could impact the resolution plan of the Bank.

### Rating Agency Guidelines

The credit rating agencies assign the Bank long- and short-term issuer ratings, as well as ratings on our long-term and short-term bank deposits. They also assign credit ratings to the obligations of Group Inc., which guarantees substantially all of our senior unsecured obligations and deposits, excluding most CDs, outstanding as of December 2016.

The level and composition of our equity capital are among the many factors considered in determining our credit ratings. Each agency has its own definition of eligible capital and methodology for evaluating capital adequacy, and assessments are generally based on a combination of factors rather than a single calculation. See "Risk Management — Liquidity Risk Management — Credit Ratings" for further information about our credit ratings.

### Consolidated Regulatory Capital

The Bank is subject to regulatory capital requirements and calculates its capital ratios in accordance with the risk-based capital and leverage requirements applicable to state member banks, which are based on the Federal Reserve Board's revised risk-based capital and leverage regulations, subject to certain transitional provisions (Revised Capital Framework). These regulations are largely based on the Basel Committee on Banking Supervision's (Basel Committee) capital framework for strengthening international capital standards (Basel III) and also implement certain provisions of the Dodd-Frank Act. Under the Revised Capital Framework, we are an "Advanced approach" banking organization.

We calculate our Common Equity Tier 1 (CET1), Tier 1 capital and Total capital ratios in accordance with (i) the Standardized approach and market risk rules set out in the Revised Capital Framework (together, the Standardized Capital Rules) and (ii) the Advanced approach and market risk rules set out in the Revised Capital Framework (together, the Basel III Advanced Rules) as described in Note 17 to the consolidated financial statements. The lower of each ratio calculated in (i) and (ii) is the ratio against which our compliance with minimum ratio requirements is assessed. Each of the ratios calculated in accordance with the Standardized Capital Rules was lower than those calculated in accordance with the Basel III Advanced Rules and therefore the Standardized Capital ratios were the ratios that applied to us as of December 2016 and December 2015.

See Note 17 to the consolidated financial statements for further information about our capital ratios as of December 2016 and December 2015, and for additional information about the Revised Capital Framework.

## Minimum Capital Ratios and Capital Buffers

The U.S. Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), among other things, requires the federal banking agencies to take "prompt corrective action" in respect of depository institutions that do not meet specified capital requirements. FDICIA establishes five capital categories for FDIC-insured banks: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized.

Under the regulatory framework for prompt corrective action applicable to the Bank, in order to meet the quantitative requirements for being a "well-capitalized" depository institution, the Bank must meet higher minimum requirements than the minimum ratios in the table below.

The table below presents our minimum required ratios and "well-capitalized" minimum ratios in accordance with the Revised Capital Framework as of December 2016, as well as the estimated minimum ratios that the Bank expects will apply at the end of the transitional provisions beginning January 2019.

| | December 2016 Minimum Ratio | January 2019 Estimated Minimum Ratio | "Well-capitalized" Minimum Ratio |
|---|---|---|---|
| CET1 ratio | 5.125% | 7.0% | 6.5% |
| Tier 1 capital ratio | 6.625% | 8.5% | 8.0% |
| Total capital ratio | 8.625% | 10.5% | 10.0% |
| Tier 1 leverage ratio | 4.000% | 4.0% | 5.0% |

In the table above:

- The minimum ratios as of December 2016 reflect (i) the 25% phase-in of the capital conservation buffer (0.625%) and (ii) the counter-cyclical capital buffer of zero percent.
- The estimated minimum ratios as of January 2019 reflect (i) the fully phased-in capital conservation buffer (2.5%) and (ii) the counter-cyclical capital buffer of zero percent. The counter-cyclical capital buffer in the future may differ from these estimates due to additional guidance from our regulators and/or positional changes. As a result, the minimum ratios we are subject to as of January 1, 2019 could be higher than the amounts presented in the table above.
- Tier 1 leverage ratio is defined as Tier 1 capital divided by quarterly average adjusted total assets (which includes adjustments for goodwill and identifiable intangible assets).
- "Well-capitalized" minimum ratios were effective from 2015. The Bank was in compliance with its minimum capital requirement and the "well-capitalized" minimum ratios as of December 2016 and December 2015.

See Note 17 to the consolidated financial statements for further information about the capital conservation buffer and the counter-cyclical capital buffer.

## Fully Phased-in Capital Ratios

The fully-phased-in CET1, Tier 1 Capital and Total Capital ratios under both the Standardized Capital Rules and the Basel III Advanced Rules are substantially the same as our transitional CET1, Tier 1 Capital and Total Capital ratios under the Standardized Capital Rules and Basel III Advanced Rules, respectively. See Note 17 to the consolidated financial statements for information about our transitional capital ratios.

### Supplementary Leverage Ratio

The Revised Capital Framework includes a supplementary leverage ratio requirement for Advanced approach banking organizations. Under amendments to the Revised Capital Framework, the U.S. federal bank regulatory agencies approved a final rule that implements the supplementary leverage ratio aligned with the definition of leverage established by the Basel Committee. The supplementary leverage ratio compares Tier 1 capital to a measure of leverage exposure, which consists of total daily average assets for the quarter, and certain off-balance-sheet exposures (which include a measure of derivatives exposures and commitments), less certain balance sheet deductions. Under Federal Reserve Board rules commencing on January 1, 2018, in order to be considered a "well-capitalized" depository institution, the Bank must have a supplementary leverage ratio of 6.0% or greater.

As of December 2016 and December 2015, our supplementary leverage ratio was 7.3% and 7.1%, respectively, based on Tier 1 capital on a fully phased-in basis of $24.48 billion, and $23.02 billion, respectively, divided by total leverage exposure of $333 billion (consists of total daily average assets for the quarter of $170 billion, and certain off-balance-sheet exposures of $163 billion, less certain balance sheet deductions of $20 million) and $324 billion (consists of total daily average assets for the quarter of $134 billion, and certain off-balance-sheet exposures of $190 billion, less certain balance sheet deductions of $5 million), respectively.

This supplementary leverage ratio is based on our current interpretation and understanding of the U.S. federal bank regulatory agencies' final rule and may evolve as we discuss the interpretation and application of this rule with our regulators.

## Regulatory Developments

Our activities are subject to significant and evolving regulation. The Dodd-Frank Act, enacted in July 2010, significantly altered the financial regulatory regime within which we operate. In addition, other reforms have been adopted or are being considered by regulators and policy makers. Given that many of the new and proposed rules are highly complex, the full impact of regulatory reform will not be known until the rules are implemented and market practices develop under the final regulations.

There has been increased regulation of, and limitations on, our activities, including over the counter (OTC) derivatives markets and transactions, particularly related to swaps and security-based swaps.

**Total Loss-Absorbing Capacity.** In December 2016, the Federal Reserve Board adopted a final rule establishing loss-absorbency and related requirements for U.S. bank holding companies that are G-SIBs, such as Group Inc. The rule will be effective in January 2019 with no phase-in period. Although it does not apply to depository institutions, the rule impacts aspects of the operations of depository institutions that are subsidiaries of U.S. G-SIBs, including the Bank. For example, it prohibits Group Inc. from (i) guaranteeing obligations of the Bank if an insolvency or receivership of Group Inc. could give the counterparty the right to exercise a default right (for example, early termination) against the Bank, subject to an exception for guarantees permitted by rules of the U.S. federal banking agencies imposing restrictions on QFCs, which have not yet been adopted; (ii) incurring liabilities guaranteed by the Bank; and (iii) entering into QFCs with any person that is not a subsidiary of Group Inc. Moreover, the Federal Reserve Board has indicated that it is considering imposing total loss absorbing capacity requirements on material operating subsidiaries of U.S. G-SIBs, which may include the Bank.

### Other Regulatory Developments

In September 2016, the final margin rules issued by the U.S. federal bank regulatory agencies and the CFTC for uncleared swaps became effective. The phase-in schedule of the initial and variation margin requirements applicable to a particular swap dealer depends on the level of swaps, security-based swaps and/or exempt foreign exchange derivative transaction activity of the swap dealer and the relevant counterparty. Under the final rules, the largest swap market counterparties, including the Bank, were required to implement the initial margin requirements for uncleared swaps between those largest counterparties beginning in September 2016. The initial margin requirements will continue to be phased in through 2020. The variation margin requirements became effective for all financial counterparties, including the Bank, in March 2017. The final rules of the U.S. federal bank regulatory agencies generally apply to inter-affiliate transactions, with limited relief available from initial margin requirements for affiliates.

Under the CFTC final rules, inter-affiliate transactions are exempt from initial margin requirements with certain exceptions but variation margin requirements still apply.

See "Business — Regulation" in Part I of this Annual Report for further information about the regulations that may impact the Bank in the future.

## Off-Balance-Sheet Arrangements and Contractual Obligations

### Off-Balance-Sheet Arrangements

We have various types of off-balance-sheet arrangements that we enter into in the ordinary course of business. Our involvement in these arrangements can take many different forms, including:

- Holding interests in special purpose entities such as mortgage-backed and other asset-backed securitization vehicles;
- Providing guarantees, indemnifications, commitments, and representations and warranties; and
- Entering into interest rate, foreign currency, equity, commodity and credit derivatives, including total return swaps.

We enter into these arrangements primarily in connection with our lending and market-making activities.

Our financial interests in, and derivative transactions with, such nonconsolidated entities are generally accounted for at fair value, in the same manner as our other financial instruments.

The table below presents where information about our various off-balance-sheet arrangements may be found in this Annual Report. In addition, see Note 3 to the consolidated financial statements for information about our consolidation policies.

| Type of Off-Balance-Sheet Arrangement | Disclosure in this Annual Report |
|---|---|
| Variable interests and other obligations, including contingent obligations, arising from variable interests in nonconsolidated VIEs | See Note 11 to the consolidated financial statements. |
| Lending and other commitments | See "Contractual Obligations" below and Note 16 to the consolidated financial statements. |
| Guarantees | See "Contractual Obligations" below and Note 16 to the consolidated financial statements. |
| Derivatives | See "Credit Risk Management — Credit Exposures — OTC Derivatives" below and Notes 4, 5, 7 and 16 to the consolidated financial statements. |

### Contractual Obligations

We have certain contractual obligations which require us to make future cash payments. These contractual obligations include our unsecured long-term borrowings, secured long-term financings, time deposits and contractual interest payments, all of which are included in our consolidated statements of financial condition.

Our obligations to make future cash payments also include certain off-balance-sheet contractual obligations such as commitments, indemnifications and guarantees.

The table below presents our contractual obligations, commitments and guarantees by type.

| $ in millions | As of December 2016 | 2015 |
|---|---|---|
| **Amounts related to on-balance-sheet obligations** | | |
| Time deposits | **$ 26,840** | $ 25,690 |
| Secured long-term financings | **2,066** | 2,524 |
| Unsecured long-term borrowings | **2,133** | 2,059 |
| Contractual interest payments | **2,401** | 2,796 |
| **Amounts related to off-balance-sheet arrangements** | | |
| Commitments to extend credit | **97,865** | 96,477 |
| Contingent and forward starting resale agreements | **599** | 709 |
| Forward starting repurchase and secured lending agreements | **77** | 298 |
| Investment commitments | **767** | 708 |
| Other commitments | **448** | 307 |
| Derivative guarantees | **103,520** | 96,446 |
| Securities lending indemnifications | **38,368** | 37,256 |
| Other financial guarantees | **2,181** | 2,419 |

The table below presents our contractual obligations, commitments and guarantees by period of expiration.

| | As of December 2016 | | | |
|---|---|---|---|---|
| $ in millions | 2017 | 2018 - 2019 | 2020 - 2021 | 2022 - Thereafter |
| **Amounts related to on-balance-sheet obligations** | | | | |
| Time deposits | **$ –** | **$ 11,467** | **$ 7,656** | **$ 7,717** |
| Secured long-term financings | **–** | **1,566** | **500** | **–** |
| Unsecured long-term borrowings | **–** | **133** | **–** | **2,000** |
| Contractual interest payments | **575** | **946** | **513** | **367** |
| **Amounts related to off-balance-sheet arrangements** | | | | |
| Commitments to extend credit | **20,521** | **21,332** | **50,900** | **5,112** |
| Contingent and forward starting resale agreements | **599** | **–** | **–** | **–** |
| Forward starting repurchase and secured lending agreements | **77** | **–** | **–** | **–** |
| Investment commitments | **29** | **–** | **–** | **738** |
| Other commitments | **448** | **–** | **–** | **–** |
| Derivative guarantees | **39,488** | **39,190** | **20,075** | **4,767** |
| Securities lending indemnifications | **38,368** | **–** | **–** | **–** |
| Other financial guarantees | **497** | **588** | **1,074** | **22** |

In the table above:

- Obligations maturing within one year of our financial statement date or redeemable within one year of our financial statement date at the option of the holders are excluded as they are treated as short-term obligations.
- Obligations that are repayable prior to maturity at our option are reflected at their contractual maturity dates and obligations that are redeemable prior to maturity at the option of the holders are reflected at the earliest dates such options become exercisable.
- Amounts included in the table do not necessarily reflect the actual future cash flow requirements for these arrangements because commitments and guarantees represent notional amounts and may expire unused or be reduced or cancelled at the counterparty's request.
- Due to the uncertainty of the timing and amounts that will ultimately be paid, our liability for unrecognized tax benefits has been excluded. See Note 20 to the consolidated financial statements for further information about our unrecognized tax benefits.
- Contractual interest payments represents estimated future interest payments related to unsecured long-term borrowings, secured long-term financings and time deposits based on applicable interest rates as of December 2016.

See Notes 14 and 16 to the consolidated financial statements for further information about our borrowings and our commitments, contingencies and guarantees, respectively.

## Risk Management

Risks are inherent in our business and include liquidity, market, credit, operational, model, legal, regulatory and reputational risks. For further information about our risk management processes, see "— Overview and Structure of Risk Management" below. Our risks include the risks across our risk categories, regions or global businesses, as well as those which have uncertain outcomes and have the potential to materially impact our financial results, our liquidity and our reputation. For further information about our areas of risk, see "— Liquidity Risk Management," "— Market Risk Management," "— Credit Risk Management," "— Operational Risk Management" and "— Model Risk Management" below and "Risk Factors" in Part I of this Annual Report.

Certain risk management processes as described in the "— Liquidity Risk Management," "— Market Risk Management," "— Credit Risk Management," "— Operational Risk Management" and "— Model Risk Management" sections below are performed by GS Group at the level of its businesses, products, and revenue producing units which encompass all activities of the Bank. These processes are subject to Bank oversight, either pursuant to a Service Level Agreement between the Bank and certain affiliates, or inclusive of Bank activities. All references in the sections below to businesses, products, and revenue-producing units refer to those of GS Group.

## Overview and Structure of Risk Management

### Overview

We believe that effective risk management is of primary importance to our success. Accordingly, we have comprehensive risk management processes through which we monitor, evaluate and manage the risks we assume in conducting our activities. These include liquidity, market, credit, operational, model, legal, compliance, regulatory and reputational risk exposures. Our risk management framework, consistent with GS Group, is built around three core components: governance, processes and people.

**Governance.** Risk management governance starts with the Bank Board which plays an important role in reviewing and approving risk management policies and practices. The Bank Board also receives regular briefings on our risks, including market risk, liquidity risk, credit risk, operational risk and model risk from our independent control and support functions, including the Bank's chief risk officer and chief financial officer, on compliance risk from the Bank's chief compliance officer, and litigation, regulatory proceedings and other matters that may negatively impact our reputation from the Bank's general counsel, a member of both the Bank's and GS Group's Client and Business Standards Committees. The Bank's chief risk officer, as part of the review of our risk portfolio, regularly advises the Bank Board of relevant risk metrics and material exposures. Next, at our most senior levels, our leaders are experienced risk managers, with a sophisticated and detailed understanding of the risks we take.

Our senior management, and senior managers within revenue-producing units and independent control and support functions, lead and participate in risk-oriented committees, including the Bank Risk Committee. Independent control and support functions include Compliance, Controllers, Credit Risk Management and Advisory (Credit Risk Management), Legal, Liquidity Risk Management and Analysis (Liquidity Risk Management), Market Risk Management and Analysis (Market Risk Management), Model Risk Management, Operational Risk Management and Analysis (Operational Risk Management), Operations, Tax, Technology, and Bank Finance working in conjunction with GS Group Treasury.

Our governance structure provides the protocol and responsibility for decision-making on risk management issues and ensures implementation of those decisions. We make extensive use of our risk-related committees that meet regularly and serve as an important means to facilitate and foster ongoing discussions to identify, manage and mitigate risks.

We maintain strong communication about risk and we have a culture of collaboration in decision-making among the revenue-producing units, independent control and support functions, committees and senior management. While we believe that the first line of defense in managing risk rests with the managers in the revenue-producing units, we dedicate extensive resources to independent control and support functions in order to ensure a strong oversight structure and an appropriate segregation of duties. GS Group regularly reinforces its strong culture of escalation and accountability across GS Group divisions and functions, including the Bank.

**Processes.** We maintain various processes and procedures that are critical components of our risk management. We apply a rigorous framework of limits to control risk across transactions, products, businesses and markets. Bank-wide limits are set by the Bank Board with certain levels set by the Bank Risk Committee and monitored on a daily basis. Certain limits, other than regulatory and Bank Board-level limits, may be set at levels that will require periodic adjustment, rather than at levels which reflect our maximum risk appetite. This fosters an ongoing dialogue on risk among revenue-producing units, independent control and support functions, committees, senior management, and the Bank Board, as well as rapid escalation of risk-related matters. See "Liquidity Risk Management," "Market Risk Management" and "Credit Risk Management" for further information about our risk limits.

Active management of our positions is another important process. Proactive mitigation of our market and credit exposures minimizes the risk that we will be required to take outsized actions during periods of stress.

We also focus on the rigor and effectiveness of our risk systems. The goal of our risk management technology is to get the right information to the right people at the right time, which requires systems that are comprehensive, reliable and timely. We devote significant time and resources to our risk management technology to ensure that it consistently provides us with complete, accurate and timely information.

**People.** Even the best technology serves only as a tool for helping to make informed decisions in real time about the risks we are taking. Ultimately, effective risk management requires our people to interpret our risk data on an ongoing and timely basis and adjust risk positions accordingly. In both the revenue-producing units, and independent control and support functions, the experience of our professionals, and their understanding of the nuances and limitations of each risk measure, guide us in assessing exposures and maintaining them within prudent levels.

We reinforce a culture of effective risk management through firmwide training and development programs, inclusive of Bank, as well as the way we evaluate performance, and recognize and reward our people. The training and development programs, including certain sessions led by GS Group's most senior leaders, are focused on the importance of risk management, client relationships and reputational excellence. As part of the firmwide annual performance review process, we assess reputational excellence including how an employee exercises good risk management and reputational judgment, and adheres to the code of conduct and compliance policies. The Bank is included in GS Group's review and reward processes which are designed to communicate and reinforce to our professionals the link between behavior and how people are recognized, the need to focus on our clients and our reputation, and the need to always act in accordance with the highest standards.

### Structure

Ultimate oversight of risk is the responsibility of the Bank Board. The Bank Board oversees risk both directly and through its Audit Committee. Bank Management has established committees for risk oversight and committee membership consists of senior managers from both revenue-producing units and independent control and support functions.

We have established procedures for these committees to ensure that appropriate information barriers are in place. Our primary risk committees are described below. All chairs of Bank management-level committees are employees or dual employees of the Bank.

The Bank leverages firmwide and divisional committees, where appropriate, for advice on certain Bank activities. Members of such committees understand their responsibility to review any proposed products, transactions or activities of the Bank and to act in the interest of the Bank. In addition, both Bank committees and firmwide committees have responsibility for considering the impact of transactions and activities on the Bank's reputation.

Membership of our risk committees is reviewed regularly and updated to reflect changes in the responsibilities of the committee members. Accordingly, the length of time that members serve on the respective committees varies as determined by the committee chairs and based on the responsibilities of the members within the Bank.

The Bank's independent control and support functions are responsible for day-to-day oversight or monitoring of risk, as described in greater detail in the following sections. The Bank's Internal Audit is accountable to the Audit Committee of the Bank Board. Internal Audit, which includes professionals with a broad range of audit and industry experience, including risk management expertise, is responsible for independently assessing and validating key controls within the Bank's risk management framework.

Our risk management governance structure includes the Bank Board, which has ultimate risk management oversight for the Bank, our key risk-related committees, which are described in further detail below, and the independence of our key control and support functions. The Bank operates as a subsidiary of GS Group and, when applicable, the Bank utilizes the structure and expertise of GS Group's firmwide, divisional and regional committees. In addition to its own Bank Committees, the Bank benefits from firmwide, regional and divisional committees for risk management, including the Firmwide Client and Business Standards Committee, Firmwide Risk Committee, GS Group Risk Governance Committee (through delegated authority from the Firmwide Risk Committee), the Marcus Credit Policy Committee (MCPC), the Private Wealth Management Capital Committee (PWMCC), and the Firmwide Capital Committee, and related sub-committees.

MCPC supervises all credit risk exposures, and is responsible for establishing the credit risk management requirements and framework for Marcus. The MCPC has three co-chairs consisting of Marcus' chief risk officer and both of the Bank's deputy chief credit risk officers for retail lending.

### Committee Structure

The Bank's committee structure is described as follows:

**Bank Management Committee.** The Bank Management Committee oversees our activities, including our risk control functions. It provides this oversight directly and through authority delegated to committees it has established. This committee is comprised of our most senior leaders, and is chaired by our chief executive officer.

The Bank Management Committee also serves as the Bank's Client and Business Standards Committee (Bank's CBSC). In its capacity as the Bank's CBSC, the Bank Management Committee also addresses client concerns and incidents, reviews Bank operational and reputational risks, and reviews business practices.

The following are the committees that are principally involved in Bank's risk management:

**Bank New Activity Committee.** The Bank New Activity Committee (BNAC) is responsible for the review and approval of new activities proposed to be conducted in the Bank. In addition, BNAC may review, at its discretion, previously approved activities that are significant and that have changed in complexity and/or structure or present different reputational and suitability concerns over time to consider whether these activities remain appropriate. The review process may utilize the expertise of the Firmwide New Activity Committee and the Regional New Activity Committees.

**Bank Risk Committee.** The Bank Risk Committee is responsible for the ongoing monitoring and management of our risks, including but not limited to, market risk, credit risk, liquidity and funding risk, model risk, legal risk, operational risk, and compliance with minimum regulatory capital ratios; internal capital adequacy assessment process; and Dodd-Frank Act stress testing procedures. The risk management methodologies of the Bank Risk Committee and its sub-committees are consistent with those of the Firmwide Risk Committee, as appropriate.

The following are the primary committees that report to the Bank Risk Committee:

- **Bank Capital Committee.** The Bank Capital Committee approves extensions of credit that are intended to be held until repayment and are made for the purpose of achieving certain total economic returns on an individual or portfolio basis (transactions); reviews and approves proposed transactions of the Bank, determines risk tolerance, diversification or other metrics for such transactions; and provides oversight of any such transactions or portfolio of transactions. The Bank Capital Committee provides approval and oversight of debt-related transactions, including reviewing and approving proposed transactions of the Bank and GS Group in conjunction with fulfilling the Bank's obligations under the Community Reinvestment Act, including for the Goldman Sachs Social Impact Fund, L.P., for which the Bank acts as investment manager.
- **Bank Asset Liability Committee.** The Bank Asset Liability Committee is responsible for the ongoing monitoring and review of the Bank's liquidity and funding risk management, balance sheet planning and asset liability management, compliance with the minimum regulatory capital ratios, interest rate risk monitoring and management and resolution planning.

## Liquidity Risk Management

### Overview

Liquidity risk is the risk that we will be unable to fund the Bank or meet our liquidity needs in the event of Bank-specific, firmwide, broader industry, or market liquidity stress events. Liquidity is of critical importance to us, as most of the failures of financial institutions have occurred in large part due to insufficient liquidity. Accordingly, we have in place a comprehensive and conservative set of liquidity and funding policies. Our principal objective is to be able to fund the Bank and to enable our core businesses to continue to serve clients and generate revenues, even under adverse circumstances.

Bank Finance, working in conjunction with GS Group Treasury, has the primary responsibility for assessing, monitoring and managing our liquidity and funding strategy. Bank Finance is independent of the revenue-producing units and reports to the Bank's chief financial officer.

Liquidity Risk Management, which is independent of the revenue-producing units and reports to Bank's chief risk officer, has primary responsibility for control and oversight of the Bank's liquidity risk management framework, including stress testing and limit governance. Liquidity Risk Management fulfills these responsibilities both directly and through use of a Service Level Agreement with GS Group's Liquidity Risk Management function, which reports to GS Group's chief risk officer. Services provided by GS Group's Liquidity Risk Management function are subject to the Bank's risk management policies for any work it performs for the Bank under a Service Level Agreement.

### Liquidity Risk Management Principles

We manage liquidity risk according to three principles: (i) hold sufficient excess liquidity in the form of GCLA to cover outflows during a stressed period, (ii) maintain appropriate Asset-Liability Management and (iii) maintain a viable Contingency Funding Plan.

**Global Core Liquid Assets.** GCLA is liquidity that we maintain to meet a broad range of potential cash outflows and collateral needs in a stressed environment. Our most important liquidity policy is to pre-fund our estimated potential cash and collateral needs during a liquidity crisis and hold this liquidity in the form of unencumbered, highly liquid securities and cash. We believe that the securities held in our GCLA would be readily convertible to cash in a matter of days, through liquidation, by entering into repurchase agreements or from maturities of resale agreements, and that this cash would allow us to meet immediate obligations without needing to sell other assets or depend on additional funding from credit-sensitive markets.

Our GCLA reflects the following principles:

- The first days or weeks of a liquidity crisis are the most critical to a company's survival;
- Focus must be maintained on all potential cash and collateral outflows, not just disruptions to financing flows. Liquidity needs are determined by many factors, including market movements, collateral requirements and client commitments, all of which can change dramatically in a difficult funding environment;
- During a liquidity crisis, credit-sensitive funding, including unsecured borrowings, certain deposits and some types of secured financing agreements, may be unavailable, and the terms (e.g., interest rates, collateral provisions and tenor) or availability of other types of secured financing may change and certain deposits may be withdrawn; and
- As a result of our policy to pre-fund liquidity that we estimate may be needed in a crisis, we hold more cash and unencumbered securities and have larger deposit and borrowings balances than we would otherwise require. We believe that our liquidity is stronger with greater balances of cash and highly liquid unencumbered securities, even though it increases our total assets and our funding costs.

We believe that our GCLA provides us with a resilient source of funds that would be available in advance of potential cash and collateral outflows and gives us significant flexibility in managing through a difficult funding environment.

**Asset-Liability Management.** Our liquidity risk management policies are designed to ensure we have a sufficient amount of financing, even when funding markets experience persistent stress. We seek to maintain a long-dated and diversified funding profile taking into consideration the characteristics and liquidity profile of our assets and modeled tenor of deposits with no stated maturity.

Our approach to asset-liability management includes:

- Conservatively managing the overall characteristics of our funding book, with a focus on maintaining long-term, diversified sources of funding in excess of our current requirements. See "Balance Sheet and Funding Sources — Funding Sources" for additional details;

- Actively managing and monitoring our asset base, with particular focus on the liquidity, holding period and our ability to fund assets on a secured basis. We assess our funding requirements and our ability to liquidate assets in a stressed environment while appropriately managing risk. This enables us to determine the most appropriate funding products and tenors. See "Balance Sheet and Funding Sources — Balance Sheet Management" for further information about our balance sheet management process; and

- Raising deposits and obtaining other funding sources that have a long contractual or modeled tenor relative to the liquidity profile of our assets. This reduces the risk that our liabilities will come due in advance of our ability to generate liquidity from the sale of our assets.

Our goal is to ensure that we maintain sufficient liquidity to fund our assets and meet our contractual and contingent obligations in normal times as well as during periods of market stress. Funding plans are reviewed and approved by the Bank Asset Liability Committee and Firmwide Finance Committee on a quarterly basis. In a liquidity crisis, we would first use our GCLA in order to avoid reliance on asset sales (other than our GCLA). However, we recognize that orderly asset sales may be prudent or necessary in a severe or persistent liquidity crisis.

**Contingency Funding Plan.** The Bank maintains a contingency funding plan to provide a framework for analyzing and responding to a liquidity crisis situation or periods of market stress. The contingency funding plan outlines a list of potential risk factors, key reports and metrics that are reviewed on an ongoing basis to assist in assessing the severity of, and managing through, a liquidity crisis and/or market dislocation. The contingency funding plan also describes in detail the potential responses if our assessments indicate that we have entered a liquidity crisis, which include pre-funding for what we estimate will be the potential cash and collateral needs as well as utilizing secondary sources of liquidity. Mitigants and action items to address specific risks which may arise are also described and assigned to individuals responsible for execution.

The contingency funding plan identifies key groups of individuals to foster effective coordination, control and distribution of information, all of which are critical in the management of a crisis or period of market stress. The contingency funding plan also details the responsibilities of these groups and individuals, which include making and disseminating key decisions, coordinating all contingency activities throughout the duration of the crisis or period of market stress, implementing liquidity maintenance activities and managing internal and external communication.

### Liquidity Stress Tests

In order to determine the appropriate size of our GCLA, we use an internal liquidity model, referred to as the Modeled Liquidity Outflow, which captures and quantifies our liquidity risks.

We also consider other factors including, but not limited to, an assessment of our potential intraday liquidity needs through an additional internal liquidity model, referred to as the Intraday Liquidity Model, the results of our long-term stress testing models, applicable regulatory requirements and a qualitative assessment of the condition of the financial markets and GS Group (inclusive of the Bank). The results of the Modeled Liquidity Outflow, the Intraday Liquidity Model and the long-term stress testing models are reported to Bank management on a regular basis.

**Modeled Liquidity Outflow.** Our Modeled Liquidity Outflow is based on conducting multiple scenarios that include combinations of market-wide and GS Group (inclusive of the Bank) specific stress. These scenarios are characterized by the following qualitative elements:

- Severely challenged market environments, including low consumer and corporate confidence, financial and political instability, adverse changes in market values, including potential declines in equity markets and widening of credit spreads; and

- A GS Group-specific crisis potentially triggered by material losses, reputational damage, litigation, executive departure, and/or a ratings downgrade.

The following are the critical modeling parameters of the Modeled Liquidity Outflow:

- Liquidity needs over a 30-day scenario;

- A two-notch downgrade of our and/or Group Inc.'s long-term senior unsecured credit ratings;

- A combination of contractual outflows, such as upcoming maturities of unsecured borrowings, and contingent outflows (e.g., actions though not contractually required, we may deem necessary in a crisis). We assume that most contingent outflows will occur within the initial days and weeks of a crisis;
- No issuance of equity or unsecured borrowings;
- No support from additional government funding facilities. Although we have access to funding through the Federal Reserve Bank discount window, we do not assume reliance on additional sources of funding in a liquidity crisis; and
- No asset liquidation, other than the GCLA.

The potential contractual and contingent cash and collateral outflows covered in our Modeled Liquidity Outflow include:

### *Unsecured Funding*

- Contractual: All upcoming maturities of unsecured borrowings and other unsecured funding products. We assume that we will be unable to issue new unsecured borrowings or rollover any maturing borrowings.

### *Deposits*

- Contractual: All upcoming maturities of term deposits. We assume that we will be unable to raise new term deposits or rollover any maturing term deposits.
- Contingent: Partial withdrawals of deposits that have no contractual maturity. The withdrawal assumptions reflect, among other factors, the type of deposit, whether the deposit is insured or uninsured, and our relationship with the depositor.

### *Secured Funding*

- Contractual: A portion of upcoming contractual maturities of secured funding due to either the inability to refinance or the ability to refinance only at wider haircuts (i.e., on terms which require us to post additional collateral). Our assumptions reflect, among other factors, the quality of the underlying collateral, counterparty roll probabilities (our assessment of the counterparty's likelihood of continuing to provide funding on a secured basis at the maturity of the trade) and counterparty concentration.
- Contingent: Adverse changes in the value of financial assets pledged as collateral for financing transactions, which would necessitate additional collateral postings under those transactions.

### *OTC Derivatives*

- Contingent: Collateral postings to counterparties due to adverse changes in the value of our OTC derivatives, excluding those that are cleared and settled through central counterparties (OTC-cleared).
- Contingent: Other outflows of cash or collateral related to OTC derivatives, excluding OTC-cleared, including the impact of trade terminations, collateral substitutions, collateral disputes, loss of rehypothecation rights, collateral calls or termination payments required by a two-notch downgrade in our or Group Inc.'s credit ratings, and collateral that has not been called by counterparties, but is available to them.

### *Exchange-Traded and OTC-cleared Derivatives*

- Contingent: Variation margin postings required due to adverse changes in the value of our outstanding exchange-traded and OTC-cleared derivatives.
- Contingent: An increase in initial margin and guaranty fund requirements by derivative clearing houses.

### *Unfunded Commitments*

- Contingent: Draws on our unfunded commitments. Draw assumptions reflect, among other things, the type of commitment and counterparty.

### *Other*

- Other upcoming large cash outflows, such as tax payments.

**Intraday Liquidity Model.** Our Intraday Liquidity Model measures our intraday liquidity needs using a scenario analysis characterized by the same qualitative elements as our Modeled Liquidity Outflow. The model assesses the risk of increased intraday liquidity requirements during a scenario where access to sources of intraday liquidity may become constrained.

The following are key modeling elements of the Intraday Liquidity Model:

- Liquidity needs over a one-day settlement period;
- Delays in receipt of counterparty cash payments;
- A reduction in the availability of intraday credit lines at our third-party clearing agents; and
- Higher settlement volumes due to an increase in activity.

**Long-Term Stress Testing.** We utilize a longer-term stress test to take a forward view on our liquidity position through a prolonged stress period in which the Bank experiences a severe liquidity stress and recovers in an environment that continues to be challenging. We are focused on ensuring conservative asset-liability management to prepare for a prolonged period of potential stress, seeking to maintain a long-dated and diversified funding profile, taking into consideration the characteristics and liquidity profile of our assets.

We also perform stress tests on a regular basis as part of our routine risk management processes and conduct tailored stress tests on an ad hoc or product-specific basis in response to market developments.

### Model Review and Validation

Bank Finance, working in conjunction with GS Group Treasury, regularly refines the Modeled Liquidity Outflow, Intraday Liquidity Model and the stress testing models to reflect changes in market or economic conditions and GS Group's (inclusive of the Bank's) business mix. Any changes, including model assumptions, are assessed and approved by Liquidity Risk Management.

Model Risk Management is responsible for the independent review and validation of our liquidity models. See "Model Risk Management" for further information about the review and validation of these models.

### Limits

We use liquidity limits at various levels and across liquidity risk types to manage the size of our liquidity exposures. Limits are measured relative to acceptable levels of risk given the liquidity risk tolerance of the Bank. The purpose of the limits is to assist senior management in monitoring and controlling our overall liquidity profile.

The Bank Risk Committee and the Bank Asset Liability Committee approve liquidity risk limits for the Bank. Limits are reviewed frequently and amended, with required approvals, on a permanent and temporary basis, as appropriate, to reflect changing market or business conditions.

Our liquidity risk limits are monitored by Bank Finance, GS Group Treasury and Liquidity Risk Management. Bank Finance and GS Group Treasury are responsible for identifying and escalating, on a timely basis, instances where limits have been exceeded.

### GCLA Metrics

Based on the results of our internal liquidity risk models, described above, as well as our consideration of other factors including, but not limited to, an assessment of our potential intraday liquidity needs and a qualitative assessment of the condition of the financial markets and the Bank, we believe our liquidity position as of both December 2016 and December 2015 was appropriate. As of December 2016 and December 2015, the fair value of certain overnight cash deposits and securities included in our GCLA totaled $85.35 billion and $59.33 billion, respectively, and the fair value of our GCLA averaged $79.37 billion for 2016 and $57.74 billion for 2015. The increase in our GCLA from December 2015 to December 2016 is primarily a result of the acquisition of GE Capital Bank's online deposit platform in April 2016. See Note 13 to the consolidated financial statements for further information about this acquisition.

The table below presents the average fair value of our GCLA by asset class.

| | Average for the Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Overnight cash deposits | **$ 69,158** | $ 47,793 |
| U.S. government and federal agency obligations | **9,946** | 9,844 |
| German, French, Japanese and U.K. government obligations | **270** | 106 |
| **Total** | **$ 79,374** | $ 57,743 |

GCLA is composed of (i) certain overnight U.S. cash deposits, (ii) unencumbered U.S. government and federal agency obligations (including highly liquid U.S. federal agency mortgage-backed obligations), all of which are eligible as collateral in Federal Reserve open market operations and (iii) certain non-U.S. dollar-dominated government obligations. We strictly limit our GCLA to a narrowly defined list of cash and securities because they are highly liquid, even in a difficult funding environment. We do not include other potential sources of excess liquidity in our GCLA, such as less liquid unencumbered securities or committed credit facilities.

We maintain our GCLA to enable us to meet current and potential liquidity requirements. Our Modeled Liquidity Outflow and Intraday Liquidity Model incorporate a consolidated requirement for the Bank. Liquidity held directly by the Bank is intended for use only by the Bank to meet its liquidity requirements and is assumed not to be available to its affiliates, including Group Inc., unless (i) legally provided for and (ii) there are no additional regulatory, tax or other restrictions.

### Liquidity Regulatory Framework

The final rules on minimum liquidity standards approved by the U.S. federal bank regulatory agencies call for a liquidity coverage ratio (LCR) designed to ensure that banking organizations maintain an adequate level of unencumbered high-quality liquid assets (HQLA) based on expected net cash outflows under an acute short-term liquidity stress scenario. Our GCLA is substantially the same in composition as the assets that qualify as HQLA under these rules.

The LCR became effective in the U.S. on January 1, 2015, with a phase-in period whereby firms had an 80% minimum in 2015, which increased by 10% per year until 2017.

In addition, in the second quarter of 2016, the U.S. federal bank regulatory agencies issued a proposed rule that calls for a net stable funding ratio (NSFR) for large U.S. banking organizations. The proposal would require banking organizations to ensure they have access to stable funding over a one-year time horizon. The proposed NSFR requirement has an effective date of January 1, 2018.

The implementation of these rules, and any amendments adopted by the applicable regulatory authorities, could impact our liquidity and funding requirements and practices in the future.

### Credit Ratings

Credit ratings are important when we are competing in certain markets, such as OTC derivatives, and when we seek to engage in longer-term transactions. See "Risk Factors" in Part I of this Annual Report.

The table below presents the unsecured credit ratings and outlook of the Bank by Fitch, Inc. (Fitch), Moody's Investors Service (Moody's), and Standard & Poor's Rating Services (S&P).

| | As of December 2016 | | |
|---|---|---|---|
| | **Fitch** | **Moody's** | **S&P** |
| Short-term Debt | **F1** | **P-1** | **A-1** |
| Long-term Debt | **A+** | **A1** | **A+** |
| Short-term Bank Deposits | **F1+** | **P-1** | **N/A** |
| Long-term Bank Deposits | **AA-** | **A1** | **N/A** |
| Ratings Outlook | **Stable** | **Stable** | **Stable** |

During the second half of 2016, S&P upgraded the long-term debt rating of the Bank from A to A+, and changed the outlook from watch positive to stable.

We believe our credit ratings are primarily based on the credit rating agencies' assessment of:

- Our status within GS Group and likelihood of GS Group support;
- Our liquidity, market, credit and operational risk management practices;
- The level and variability of our earnings;
- Our capital base;
- Our primary businesses, reputation and management;
- Our corporate governance; and
- The external operating and economic environment, including, in some cases, the assumed level of government support or other systemic considerations, such as potential resolution.

Certain of our derivatives have been transacted under bilateral agreements with counterparties who may require us to post collateral or terminate the transactions based on changes in our and/or Group Inc.'s credit ratings. We assess the impact of these bilateral agreements by determining the collateral or termination payments that would occur assuming a downgrade by all rating agencies. A downgrade by any one rating agency, depending on the agency's relative ratings of the Bank and/or Group Inc. at the time of the downgrade, may have an impact which is comparable to the impact of a downgrade by all rating agencies.

We manage our GCLA to ensure we would, among other potential requirements, be able to make the additional collateral or termination payments that may be required in the event of a two-notch reduction in our and/or Group Inc.'s long-term credit ratings, as well as collateral that has not been called by counterparties, but is available to them.

The table below presents the additional collateral or termination payments related to our net derivative liabilities under bilateral agreements that could have been called at the reporting date by counterparties in the event of a one-notch and two-notch downgrade in our and/or Group Inc.'s credit ratings.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Additional collateral or termination payments: | | |
| One-notch downgrade | **$ 165** | $ 485 |
| Two-notch downgrade | **298** | 835 |

### Cash Flows

Our cash flows are complex and bear little relation to our net earnings and net assets. Consequently, we believe that traditional cash flow analysis is less meaningful in evaluating our liquidity position than the liquidity and asset-liability management policies described above. Cash flow analysis may, however, be helpful in highlighting certain macro trends and strategic initiatives in our businesses.

**Year Ended December 2016.** Our cash increased by $24.62 billion to $74.67 billion at the end of 2016. We generated $26.50 billion in net cash provided by investing and financing activities primarily from net cash acquired as a result of our acquisition of GE Capital Bank's online deposit platform in April 2016 and growth in private bank deposits. We used $1.88 billion in net cash for operating activities, which primarily reflects an increase in securities purchased under agreements to resell, net of securities sold under agreements to repurchase, partially offset by a decrease in financial instruments owned, at fair value.

**Year Ended December 2015.** Our cash increased by $10.19 billion to $50.05 billion at the end of 2015. We generated $21.34 billion in net cash provided by operating and financing activities which primarily reflects an increase in bank deposits and proceeds from issuance of other secured financings and from the net repayment of corporate loans and debt securities at fair value. We used $11.15 billion in net cash for investing activities, which reflects an increase in loans receivable.

## Market Risk Management

### Overview

Market risk is the risk of loss in the value of our positions, as well as certain other financial assets and financial liabilities, due to changes in market conditions. We employ a variety of risk measures, each described in the respective sections below, to monitor market risk. We hold positions primarily for market making for our clients and for our lending activities. Our positions therefore change based on client demands and our lending opportunities. Categories of market risk include the following:

- Interest rate risk: results from exposures to changes in the level, slope and curvature of yield curves, the volatilities of interest rates, mortgage prepayment speeds and credit spreads;
- Currency rate risk: results from exposures to changes in spot prices, forward prices and volatilities of currency rates; and
- Equity price risk: results from exposures to changes in prices and volatilities of individual equities, baskets of equities and equity indices.

Market Risk Management, which is independent of the revenue-producing units and reports to Bank's chief risk officer, has primary responsibility for control and oversight of the Bank's market risk management framework. Market Risk Management fulfills these responsibilities both directly and through use of a Service Level Agreement with GS Group's Market Risk Management function, which reports to GS Group's chief risk officer. Services provided by GS Group's Market Risk Management function are subject to the Bank's risk management policies for any work it performs for the Bank under a Service Level Agreement.

Managers in revenue-producing units and Market Risk Management discuss market information, positions and estimated risk and loss scenarios on an ongoing basis. Managers in revenue-producing units are accountable for managing risk within prescribed limits. These managers have in-depth knowledge of their positions, markets and the instruments available to hedge their exposures.

### Market Risk Management Process

We manage our market risk by diversifying exposures, controlling position sizes and establishing economic hedges in related securities or derivatives. This process includes:

- Accurate and timely exposure information incorporating multiple risk metrics;
- A dynamic limit setting framework; and
- Constant communication among revenue-producing units, risk managers and senior management.

**Risk Measures.** Market Risk Management produces risk measures and monitors them against established market risk limits. These measures reflect an extensive range of scenarios and the results are aggregated at product, business, GS Group and Bank levels.

We use a variety of risk measures to estimate the size of potential losses for both moderate and more extreme market moves over both short-term and long-term time horizons. Our primary risk measures are Value-at-Risk (VaR), which is used for shorter-term periods, and stress tests. Risk reports detail key risks, drivers and changes for each desk and business, and are distributed daily to senior management of both the revenue-producing units and the independent control and support functions.

**Value-at-Risk.** VaR is the potential loss in value due to adverse market movements over a defined time horizon with a specified confidence level. We typically employ a one-day time horizon with a 95% confidence level. We use a single VaR model which captures risks including interest rates, currency rates and equity prices. As such, VaR facilitates comparison across portfolios of different risk characteristics. VaR also captures the diversification of aggregated risk at the Bank level.

We are aware of the inherent limitations to VaR and therefore use a variety of risk measures in our market risk management process. Inherent limitations to VaR include:

- VaR does not estimate potential losses over longer time horizons where moves may be extreme;
- VaR does not take account of the relative liquidity of different risk positions; and
- Previous moves in market risk factors may not produce accurate predictions of all future market moves.

When calculating VaR, we use historical simulations with full valuation of approximately 70,000 market factors. VaR is calculated at a position level based on simultaneously shocking the relevant market risk factors for that position. We sample from five years of historical data to generate the scenarios for our VaR calculation. The historical data is weighted so that the relative importance of the data reduces over time. This gives greater importance to more recent observations and reflects current asset volatilities, which improves the accuracy of our estimates of potential loss. As a result, even if our positions included in VaR were unchanged, our VaR would increase with increasing market volatility and vice versa.

Given its reliance on historical data, VaR is most effective in estimating risk exposures in markets in which there are no sudden fundamental changes or shifts in market conditions.

Our VaR measure does not include:

- Positions that are best measured and monitored using sensitivity measures; and
- The impact of changes in counterparty and our own credit spreads on derivatives, as well as changes in our own credit spreads on unsecured borrowings for which the fair value option was elected.

We perform daily backtesting of the VaR model (i.e., comparing daily trading net revenues to the VaR measure calculated as of the prior business day) at the Bank and business level.

**Stress Testing.** Stress testing is a method of determining the effect of various hypothetical stress scenarios on the Bank. We use stress testing to examine risks of specific portfolios as well as the potential impact of significant risk exposures across the Bank. We use a variety of stress testing techniques to calculate the potential loss from a wide range of market moves on our portfolios, including sensitivity analysis, scenario analysis and stress tests. The results of our various stress tests are analyzed together for risk management purposes.

Sensitivity analysis is used to quantify the impact of a market move in a single risk factor across all positions (e.g., equity prices or credit spreads) using a variety of defined market shocks, ranging from those that could be expected over a one-day time horizon up to those that could take many months to occur. We also use sensitivity analysis to quantify the impact of the default of any single entity, which captures the risk of large or concentrated exposures.

Scenario analysis is used to quantify the impact of a specified event, including how the event impacts multiple risk factors simultaneously. When conducting scenario analysis, we typically consider a number of possible outcomes for each scenario, ranging from moderate to severely adverse market impacts. In addition, these stress tests are constructed using both historical events and forward-looking hypothetical scenarios.

Bank stress testing combines market, credit, operational and liquidity risks into a single combined scenario. The Bank stress tests are primarily used to assess capital adequacy as part of our capital planning and stress testing process; however, we also ensure that Bank stress testing is integrated into our risk governance framework. This includes selecting appropriate scenarios to use for our capital planning and stress testing process. See "Equity Capital Management and Regulatory Capital — Equity Capital Management" for further information.

Unlike VaR measures, which have an implied probability because they are calculated at a specified confidence level, there is generally no implied probability that our stress test scenarios will occur. Instead, stress tests are used to model both moderate and more extreme moves in underlying market factors. When estimating potential loss, we generally assume that our positions cannot be reduced or hedged (although experience demonstrates that we are generally able to do so).

**Limits**. We use risk limits at various levels (including Bank, business and product) to govern risk appetite by controlling the size of our exposures to market risk. Limits are set based on VaR and on a range of stress tests relevant to our exposures. Limits are reviewed frequently and amended on a permanent or temporary basis to reflect changing market conditions, business conditions or tolerance for risk.

The Bank Board and Bank Risk Committee approve market risk limits and sublimits at the Bank, business and product levels.

The purpose of the firmwide limits is to assist senior management in controlling our overall risk profile. Sub-limits are set below the approved level of risk limits. Sub-limits set the desired maximum amount of exposure that may be managed by any particular business on a day-to-day basis without additional levels of senior management approval, effectively leaving day-to-day decisions to individual desk managers and traders. Accordingly, sub-limits are a management tool designed to ensure appropriate escalation rather than to establish maximum risk tolerance. Sub-limits also distribute risk among various businesses in a manner that is consistent with their level of activity and client demand, taking into account the relative performance of each area.

Our market risk limits are monitored daily by Market Risk Management, which is responsible for identifying and escalating, on a timely basis, instances where limits have been exceeded.

When a risk limit has been exceeded (e.g., due to positional changes or changes in market conditions, such as increased volatilities or changes in correlations), it is escalated to the relevant senior managers in Market Risk Management, Bank chief risk officer and Bank Risk Committee. Such instances are remediated by an exposure reduction and/or a temporary or permanent increase to the risk limit.

### Model Review and Validation

Our VaR and stress testing models are regularly reviewed by Market Risk Management and enhanced in order to incorporate changes in the composition of positions included in our market risk measures, as well as variations in market conditions. Prior to implementing significant changes to our assumptions and/or models, Model Risk Management performs model validations. Significant changes to our VaR and stress testing models are reviewed with GS Group's chief risk officer and GS Group's chief financial officer, and approved by GS Group Firmwide Risk Committee.

See "Model Risk Management" for further information about the review and validation of these models.

### Systems

GS Group has made a significant investment in technology to monitor market risk including:

- An independent calculation of VaR and stress measures;
- Risk measures calculated at individual position levels;
- Attribution of risk measures to individual risk factors of each position;
- The ability to report many different views of the risk measures (e.g., by desk, business or product type); and
- The ability to produce ad hoc analyses in a timely manner.

### Metrics

We analyze VaR at the Bank level and a variety of more detailed levels, including by risk category, business, and region. The tables below present, by risk category, average daily VaR and period-end VaR, as well as the high and low VaR for the period. Diversification effect in the tables below represents the difference between total VaR and the sum of the VaRs for the two risk categories. This effect arises because the two market risk categories are not perfectly correlated.

The table below presents average daily VaR.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Risk Categories** | | |
| Interest rates | **$ 20** | $ 19 |
| Currency rates | **5** | 4 |
| Diversification effect | **(5)** | (4) |
| **Total** | **$ 20** | $ 19 |

Our average daily VaR increased $1 million to $20 million in 2016 as compared to 2015, reflecting an increase in the interest rates and currency rates categories primarily due to increased average exposure.

The table below presents period-end VaR.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Risk Categories** | | |
| Interest rates | **$ 20** | $ 26 |
| Currency rates | **3** | 2 |
| Equity prices | **–** | 1 |
| Diversification effect | **(4)** | (3) |
| **Total** | **$ 19** | $ 26 |

Our daily VaR decreased to $19 million as of December 2016 from $26 million as of December 2015, primarily reflecting a decrease in the interest rates category primarily due to reduced exposures.

The table below presents high and low VaR by risk category.

| | Year Ended December 2016 | |
|---|---|---|
| *$ in millions* | **High** | **Low** |
| **Risk Categories** | | |
| Interest rates | **$ 41** | **$ 13** |
| Currency rates | **18** | **2** |
| Equity prices | **3** | **–** |

The high and low total VaR was $34 million and $14 million, respectively, for the year ended December 2016

During both 2016 and 2015, the Bank's VaR risk limit was not exceeded, raised or reduced.

### Sensitivity Measures

Certain portfolios and individual positions are not included in VaR because VaR is not the most appropriate risk measure. Other sensitivity measures we use to analyze market risk are described below.

**10% Sensitivity Measures.** The table below presents market risk for positions that are not included in VaR. The market risk of these positions is determined by estimating the potential reduction in net revenues of a 10% decline in the value of these positions. Equity positions below relate to investments in qualified affordable housing projects. Debt positions include loans backed by commercial and residential real estate, corporate bank loans and other corporate debt. These equity and debt positions are included in "Financial instruments owned, at fair value" in our consolidated statements of financial condition. These measures do not reflect diversification benefits across asset categories or across other market risk measures. See Note 6 to the consolidated financial statements for further information about cash instruments.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Asset Categories** | | |
| Equity | **$ 31** | $ 29 |
| Debt | **837** | 708 |
| **Total** | **$ 868** | $ 737 |

**Interest Rate Sensitivity.** Loans receivable that are held for investment as of December 2016 and December 2015 were $36.07 billion and $36.38 billion, respectively, substantially all of which had floating interest rates. As of December 2016 and December 2015, the estimated sensitivity to a 100 basis point increase in interest rates on such loans was $335 million and $343 million, respectively, of additional interest income over a twelve-month period, which does not take into account the potential impact of an increase in costs to fund such loans. See Note 9 to the consolidated financial statements for further information about loans receivable that are held for investment.

### Other Market Risk Considerations

As of December 2016 and December 2015, we had commitments and held loans for which GS Group has obtained credit loss protection from Sumitomo Mitsui Financial Group, Inc. See Note 16 to the consolidated financial statements for further information about such lending commitments.

## Credit Risk Management

### Overview

Credit risk represents the potential for loss due to the default or deterioration in credit quality of a counterparty (e.g., an OTC derivatives counterparty or a borrower) or an issuer of securities or other instruments we hold. Our exposure to credit risk comes mostly from client transactions in loans and lending commitments and OTC derivatives. Credit risk also comes from cash placed with banks, securities financing transactions (i.e., resale and repurchase agreements) and receivables from brokers, dealers, clearing organizations, customers and counterparties.

Credit Risk Management, which is independent of the revenue-producing units and reports to Bank's chief risk officer, has primary responsibility for control and oversight of the Bank's credit risk management framework. Credit Risk Management fulfills these responsibilities both directly and through use of a Service Level Agreement with GS Group's Credit Risk Management function, which reports to GS Group's chief risk officer. Services provided by GS Group's Credit Risk Management function are subject to the Bank's risk management policies for any work it performs for the Bank under a Service Level Agreement.

In addition to Credit Risk Management approval, all loans to which the Bank commits that are in excess of defined thresholds must also be approved by a Bank risk officer. The Bank Risk Committee approves the Bank's credit policies. In addition, we hold other positions that give rise to credit risk (e.g., bonds held in our inventory and secondary bank loans). These credit risks are captured as a component of market risk measures, which are monitored and managed by Market Risk Management, consistent with other positions. We also enter into derivatives to manage market risk exposures. Such derivatives also give rise to credit risk, which is monitored and managed by Credit Risk Management.

### Credit Risk Management Process

Effective management of credit risk requires accurate and timely information, a high level of communication and knowledge of customers, countries, industries and products. Our process for managing credit risk includes:

- Approving transactions and setting and communicating credit exposure limits;
- Establishing or approving underwriting standards, including continuous review and refinement in connection with our lending activities;
- Monitoring compliance with established credit exposure limits;
- Assessing the likelihood that a counterparty will default on its payment obligations;
- Measuring our current and potential credit exposure and losses resulting from counterparty default;
- Reporting of credit exposures to Bank senior management, the Bank Board and regulators;
- Using credit risk mitigants, including collateral and hedging; and
- Communicating and collaborating with other independent control and support functions such as operations, legal and compliance.

As part of the risk assessment process, Credit Risk Management performs credit reviews which include initial and ongoing analyses of our counterparties. The Bank employs well-defined underwriting standards and policies, which seek to mitigate credit risk through analysis of a borrower's credit history, financial information, cash flow, sustainability of liquidity and collateral quality adequacy, if applicable. For substantially all of our credit exposures, the core of our process is an annual counterparty credit review. A credit review is an independent analysis of the capacity and willingness of a counterparty to meet its financial obligations, resulting in an internal credit rating. The determination of internal credit ratings also incorporates assumptions with respect to the nature of and outlook for the counterparty's industry, and the economic environment. Senior personnel within Credit Risk Management, with expertise in specific industries, inspect and approve credit reviews and internal credit ratings.

Our risk assessment process may also include, where applicable, reviewing certain key metrics, such as delinquency status, collateral values, credit scores and other risk factors.

GS Group's global credit risk management systems capture credit exposure to individual counterparties and on an aggregate basis to counterparties and their subsidiaries (economic groups). These systems also provide management with comprehensive information on our aggregate credit risk by product, internal credit rating, industry, country and region.

### Risk Measures and Limits

We measure our credit risk based on the potential loss in the event of non-payment by a counterparty using current and potential exposure. For loans and lending commitments, the primary measure is a function of the notional amount of the position. For derivatives and securities financing transactions, current exposure represents the amount presently owed to us after taking into account applicable netting and collateral arrangements while potential exposure represents our estimate of the future exposure that could arise over the life of a transaction based on market movements within a specified confidence level. Potential exposure also takes into account netting and collateral arrangements.

We use credit limits at various levels (e.g., counterparties including affiliates, economic group, industry and country) as well as underwriting standards to control the size and nature of our credit exposures. Limits for counterparties and economic groups are reviewed regularly and revised to reflect changing risk appetites for a given counterparty or group of counterparties. Limits for industries and countries are based on our risk tolerance and are designed to allow for regular monitoring, review, escalation and management of credit risk concentrations. The GS Group Risk Committee of the Board and the GS Group Risk Governance Committee (through delegated authority from the Firmwide Risk Committee) approve credit risk limits at firmwide, business and product levels, inclusive of Bank.

Credit Risk Management (through delegated authority from the GS Group Risk Governance Committee) sets credit limits for individual counterparties (including affiliates), economic groups, industries and countries. Policies authorized by the Firmwide Risk Committee, the GS Group Risk Governance Committee and the GS Group Credit Policy Committee prescribe the level of formal approval required for us to assume credit exposure to a counterparty across all product areas, taking into account any applicable netting provisions, collateral or other credit risk mitigants.

### Stress Tests

We use regular stress tests to calculate the credit exposures, including potential concentrations that would result from applying shocks to counterparty credit ratings or credit risk factors (e.g., currency rates, credit spreads, interest rates, equity prices). These shocks include a wide range of moderate and more extreme market movements. Some of our stress tests include shocks to multiple risk factors, consistent with the occurrence of a severe market or economic event.

Unlike potential exposure, which is calculated within a specified confidence level, with a stress test there is generally no assumed probability of these events occurring.

We perform stress tests on a regular basis as part of our routine risk management processes and conduct tailored stress tests on an ad hoc basis in response to market developments. Stress tests are conducted jointly with our market and liquidity risk functions.

### Model Review and Validation

Our potential credit exposure and stress testing models, and any changes to such models or assumptions, are reviewed by Model Risk Management. See "Model Risk Management" for further information about the review and validation of these models.

### Risk Mitigants

To reduce our credit exposures on loans and lending commitments, depending on the credit quality of the borrower and other characteristics of the transaction, we employ a variety of potential risk mitigants. Risk mitigants include collateral provisions, guarantees, covenants, structural seniority of the bank loan claims and, for certain lending commitments, provisions in the legal documentation that allow us to adjust loan amounts, pricing, structure and other terms as market conditions change. The type and structure of risk mitigants employed can significantly influence the degree of credit risk involved in a loan or lending commitment.

For derivatives and securities financing transactions, we may enter into netting agreements with counterparties that permit us to offset receivables and payables with such counterparties. We may also reduce credit risk with counterparties by entering into agreements that enable us to obtain collateral from them on an upfront or contingent basis and/or to terminate transactions if the counterparty's credit rating falls below a specified level. We monitor the fair value of the collateral on a daily basis to ensure that our credit exposures are appropriately collateralized. We seek to minimize exposures where there is a significant positive correlation between the creditworthiness of our counterparties and the market value of collateral we receive.

When we do not have sufficient visibility into a counterparty's financial strength or when we believe a counterparty requires support from its parent, we may obtain third-party guarantees of the counterparty's obligations. We may also mitigate our credit risk using credit derivatives or participation agreements.

### Credit Exposures

As of December 2016, our credit exposures increased as compared with December 2015, primarily reflecting an increase in cash deposits with central banks. The percentage of our credit exposures arising from non-investment-grade counterparties (based on our internally determined public rating agency equivalents) decreased as compared with December 2015, reflecting an increase in investment-grade credit exposure related to cash deposits with central banks and a decrease in non-investment-grade loans and lending commitments.

During 2016, the number of counterparty defaults remained the same as compared with 2015, and such defaults primarily occurred within loans and lending commitments. The total number of counterparty defaults remained low, representing less than 0.5% of all counterparties. Estimated losses associated with counterparty defaults were higher compared with 2015 and were not material to the Bank. Our credit exposures are described further below.

**Cash.** Our credit exposure on cash arises from our unrestricted cash, and includes both interest-bearing and non-interest-bearing deposits. To mitigate the risk of credit loss, we place substantially all of our deposits with highly-rated banks and central banks. Unrestricted cash was $74.42 billion and $49.81 billion as of December 2016 and December 2015, respectively, and excludes cash segregated for regulatory and other purposes of $252 million and $235 million as of December 2016 and December 2015, respectively.

**OTC Derivatives.** Our credit exposure on OTC derivatives arises primarily from our market-making activities. As a market maker, we enter into derivative transactions to provide liquidity to clients and to facilitate the transfer and hedging of their risks. We also enter into derivatives to manage market risk exposures. We manage our credit exposure on OTC derivatives using the credit risk process, measures, limits and risk mitigants described above.

Derivatives are reported on a net-by-counterparty basis (i.e., the net payable or receivable for derivative assets and liabilities for a given counterparty) when a legal right of setoff exists under an enforceable netting agreement. Derivatives are accounted for at fair value, net of cash collateral received or posted under enforceable credit support agreements. We generally enter into OTC derivatives transactions under bilateral collateral arrangements that require the daily exchange of collateral. As credit risk is an essential component of fair value, we include a credit valuation adjustment (CVA) in the fair value of derivatives to reflect counterparty credit risk, as described in Note 7 to the consolidated financial statements. CVA is a function of the present value of expected exposure, the probability of counterparty default and the assumed recovery upon default.

The table below presents the distribution of our exposure to OTC derivatives by tenor, both before and after the effect of collateral and netting agreements.

| $ in millions | Investment-Grade | Non-Investment-Grade / Unrated | Total |
|---|---|---|---|
| **As of December 2016** | | | |
| Less than 1 year | **$ 5,895** | **$ 195** | **$ 6,090** |
| 1 - 5 years | **15,294** | **298** | **15,592** |
| Greater than 5 years | **48,327** | **501** | **48,828** |
| Total | **69,516** | **994** | **70,510** |
| Netting | **(59,842)** | **(108)** | **(59,950)** |
| **OTC derivative assets** | **$ 9,674** | **$ 886** | **$ 10,560** |
| **Net credit exposure** | **$ 7,529** | **$ 884** | **$ 8,413** |
| As of December 2015 | | | |
| Less than 1 year | $ 5,053 | $ 126 | $ 5,179 |
| 1 - 5 years | 18,020 | 551 | 18,571 |
| Greater than 5 years | 50,720 | 540 | 51,260 |
| Total | 73,793 | 1,217 | 75,010 |
| Netting | (64,299) | (199) | (64,498) |
| OTC derivative assets | $ 9,494 | $ 1,018 | $ 10,512 |
| Net credit exposure | $ 7,314 | $ 861 | $ 8,175 |

In the table above:

- Tenor is based on expected duration for mortgage-related credit derivatives and generally on remaining contractual maturity for other derivatives.
- Receivable and payable balances with the same counterparty in the same tenor category are netted within such tenor category.
- Receivable and payable balances for the same counterparty across tenor categories are netted under enforceable netting agreements, and cash collateral received is netted under enforceable credit support agreements.
- Net credit exposure represents OTC derivative assets, included in "Financial instruments owned, at fair value," less cash collateral and the fair value of securities collateral, primarily U.S. government and federal agency obligations and non-U.S. government and agency obligations, received under credit support agreements, which management considers when determining credit risk, but such collateral is not eligible for netting under U.S. GAAP.

The tables below present the distribution of our exposure to OTC derivatives by tenor and our internally determined public rating agency equivalents.

| | Investment-Grade | | | | |
|---|---|---|---|---|---|
| $ in millions | AAA | AA | A | BBB | Total |
| **As of December 2016** | | | | | |
| Less than 1 year | **$ 4** | **$ 818** | **$ 4,038** | **$ 1,035** | **$ 5,895** |
| 1 - 5 years | **670** | **4,051** | **8,124** | **2,449** | **15,294** |
| Greater than 5 years | **1,034** | **26,140** | **12,893** | **8,260** | **48,327** |
| Total | **1,708** | **31,009** | **25,055** | **11,744** | **69,516** |
| Netting | **(337)** | **(28,662)** | **(19,795)** | **(11,048)** | **(59,842)** |
| **OTC derivative assets** | **$ 1,371** | **$ 2,347** | **$ 5,260** | **$ 696** | **$ 9,674** |
| **Net credit exposure** | **$ 1,371** | **$ 1,870** | **$ 3,673** | **$ 615** | **$ 7,529** |
| As of December 2015 | | | | | |
| Less than 1 year | $ 54 | $ 1,023 | $ 3,556 | $ 420 | $ 5,053 |
| 1 - 5 years | 646 | 5,785 | 10,021 | 1,568 | 18,020 |
| Greater than 5 years | 1,056 | 25,206 | 13,837 | 10,621 | 50,720 |
| Total | 1,756 | 32,014 | 27,414 | 12,609 | 73,793 |
| Netting | (386) | (29,158) | (22,567) | (12,188) | (64,299) |
| OTC derivative assets | $ 1,370 | $ 2,856 | $ 4,847 | $ 421 | $ 9,494 |
| Net credit exposure | $ 1,370 | $ 2,250 | $ 3,342 | $ 352 | $ 7,314 |

| | Non-Investment-Grade / Unrated | | |
|---|---|---|---|
| $ in millions | BB or lower | Unrated | Total |
| **As of December 2016** | | | |
| Less than 1 year | **$ 149** | **$ 46** | **$ 195** |
| 1 - 5 years | **293** | **5** | **298** |
| Greater than 5 years | **499** | **2** | **501** |
| Total | **941** | **53** | **994** |
| Netting | **(106)** | **(2)** | **(108)** |
| **OTC derivative assets** | **$ 835** | **$ 51** | **$ 886** |
| **Net credit exposure** | **$ 833** | **$ 51** | **$ 884** |
| As of December 2015 | | | |
| Less than 1 year | $ 124 | $ 2 | $ 126 |
| 1 - 5 years | 543 | 8 | 551 |
| Greater than 5 years | 540 | – | 540 |
| Total | 1,207 | 10 | 1,217 |
| Netting | (189) | (10) | (199) |
| OTC derivative assets | $ 1,018 | $ – | $ 1,018 |
| Net credit exposure | $ 861 | $ – | $ 861 |

**Lending and Financing Activities.** We manage our lending and financing activities using the credit risk process (including adherence to product underwriting standards), measures, limits and risk mitigants described above. Other lending positions, including secondary trading positions, are risk-managed as a component of market risk.

- **Lending Activities.** Our lending activities include lending to institutional and corporate borrowers. Loans and lending commitments associated with these activities are principally used for operating liquidity and general corporate purposes or in connection with contingent acquisitions. Corporate loans may be secured or unsecured, depending on the loan purpose, the risk profile of the borrower and other factors. Our lending activities also include extending loans to borrowers that are secured by commercial and other real estate. See the tables below for further information about our credit exposures associated with these lending activities.
- **Securities Financing Transactions.** We enter into securities financing transactions in order to, among other things, facilitate client activities and acquire securities to cover short positions. We bear credit risk related to resale agreements only to the extent that cash advanced or the value of securities pledged or delivered to the counterparty exceeds the value of the collateral received. We also have credit exposure on repurchase agreements to the extent that the value of securities pledged or delivered to the counterparty for these transactions exceeds the amount of cash or collateral received. Securities collateral obtained for securities financing transactions primarily includes U.S. government and federal agency obligations. We had approximately $28 million and $227 million as of December 2016 and December 2015, respectively, of credit exposure related to securities financing transactions reflecting both netting agreements and collateral that management considers when determining credit risk.
- **Other Credit Exposures.** We are exposed to credit risk from our receivables from customers and counterparties, brokers, dealers and clearing organizations. These receivables are primarily comprised of initial cash margin placed with clearing organizations and receivables related to sales of loans which have traded, but not yet settled. These receivables generally have minimal credit risk due to the short-term nature of receivables related to loan settlements and the low probability of clearing organization default. Our net credit exposure related to these activities was approximately $2.51 billion and $2.42 billion as of December 2016 and December 2015, respectively, and was primarily comprised of initial margin (both cash and securities) placed with investment-grade clearing organizations. The regional breakdown of our net credit exposure related to these activities was approximately 12% and 7% in the Americas, approximately 87% and 92% in Europe, Middle East and Africa (EMEA) and approximately 1% and 1% in Asia as of December 2016 and December 2015, respectively.

In addition, we extend other loans and lending commitments to our private wealth management clients that are primarily secured by residential real estate, securities or other assets. We also purchase loans backed by residential real estate and consumer loans. The gross exposure related to such loans and lending commitments was approximately $22.09 billion and $21.28 billion as of December 2016 and December 2015, respectively. Our net credit exposure related to these activities was substantially all concentrated in the Americas as of both December 2016 and December 2015. The fair value of the collateral received against such loans and lending commitments generally exceeded the gross carrying amount as of both December 2016 and December 2015.

### Credit Exposure by Industry, Region and Credit Quality

The tables below present our credit exposure related to cash, OTC derivatives, and loans and lending commitments (excluding credit exposures described above in "Securities Financing Transactions" and "Other Credit Exposures") broken down by industry, region and credit quality. In the tables below, substantially all cash is held with the Federal Reserve Bank.

| | Cash as of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Credit Exposure by Industry** | | |
| Financial Institutions | **$ 231** | $ 535 |
| Sovereign | **74,186** | 49,275 |
| **Total** | **$ 74,417** | $ 49,810 |
| **Credit Exposure by Region** | | |
| Americas | **$ 74,327** | $ 49,650 |
| EMEA | **31** | 36 |
| Asia | **59** | 124 |
| **Total** | **$ 74,417** | $ 49,810 |
| **Credit Exposure by Credit Quality (Credit Rating Equivalent)** | | |
| AAA | **$ 74,186** | $ 49,274 |
| AA | **105** | 112 |
| A | **87** | 413 |
| BBB or lower | **39** | 11 |
| **Total** | **$ 74,417** | $ 49,810 |

| | OTC Derivatives as of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Credit Exposure by Industry** | | |
| Funds | **$ 1,564** | $ 678 |
| Financial Institutions | **3,806** | 4,119 |
| Consumer, Retail & Healthcare | **41** | 65 |
| Sovereign | **638** | 748 |
| Municipalities & Nonprofit | **2,603** | 3,024 |
| Natural Resources & Utilities | **553** | 586 |
| Real Estate | **7** | 31 |
| Technology, Media & Telecommunications | **336** | 159 |
| Diversified Industrials | **511** | 513 |
| Other (including Special Purpose Vehicles) | **501** | 589 |
| **Total** | **$ 10,560** | $ 10,512 |
| **Credit Exposure by Region** | | |
| Americas | **$ 7,826** | $ 7,003 |
| EMEA | **2,406** | 2,247 |
| Asia | **328** | 1,262 |
| **Total** | **$ 10,560** | $ 10,512 |
| **Credit Exposure by Credit Quality (Credit Rating Equivalent)** | | |
| AAA | **$ 1,371** | $ 1,370 |
| AA | **2,348** | 2,856 |
| A | **5,259** | 4,847 |
| BBB | **696** | 421 |
| BB or lower | **835** | 1,018 |
| Unrated | **51** | – |
| **Total** | **$ 10,560** | $ 10,512 |

| | Loans and Lending Commitments as of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Credit Exposure by Industry** | | |
| Funds | **$ 3,595** | $ 2,268 |
| Financial Institutions | **10,379** | 12,420 |
| Consumer, Retail & Healthcare | **26,740** | 27,421 |
| Sovereign | **479** | 43 |
| Municipalities & Nonprofit | **709** | 628 |
| Natural Resources & Utilities | **20,416** | 19,856 |
| Real Estate | **8,591** | 11,163 |
| Technology, Media & Telecommunications | **25,825** | 23,102 |
| Diversified Industrials | **15,358** | 15,517 |
| Other (including Special Purpose Vehicles) | **9,747** | 10,323 |
| **Total** | **$ 121,839** | $ 122,741 |
| **Credit Exposure by Region** | | |
| Americas | **$ 99,406** | $ 100,290 |
| EMEA | **20,820** | 20,739 |
| Asia | **1,613** | 1,712 |
| **Total** | **$ 121,839** | $ 122,741 |
| **Credit Exposure by Credit Quality (Credit Rating Equivalent)** | | |
| AAA | **$ 3,135** | $ 4,148 |
| AA | **7,554** | 7,297 |
| A | **26,101** | 24,622 |
| BBB | **38,761** | 38,254 |
| BB or lower | **46,136** | 48,127 |
| Unrated | **152** | 293 |
| **Total** | **$ 121,839** | $ 122,741 |

## Operational Risk Management

### Overview

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. Our exposure to operational risk arises from routine processing errors as well as extraordinary incidents, such as major systems failures or legal and regulatory matters.

Potential types of loss events related to internal and external operational risk include:

- Clients, products and business practices;
- Execution, delivery and process management;
- Business disruption and system failures;
- Employment practices and workplace safety;
- Damage to physical assets;
- Internal fraud; and
- External fraud.

Operational Risk Management, which is independent of the revenue-producing units and reports to Bank's chief risk officer, has primary responsibility for development and implementation of the Bank's operational risk management framework. Operational Risk Management fulfills these responsibilities both directly and through use of a Service Level Agreement with GS Group's Operational Risk Management function, which reports to GS Group's chief risk officer. Services provided by GS Group's Operational Risk Management function are subject to the Bank's risk management policies for any work it performs for the Bank under a Service Level Agreement.

### Operational Risk Management Process

Managing operational risk requires timely and accurate information as well as a strong control culture of compliance. We seek to manage our operational risk through:

- Training, supervision and development of our people;
- Active participation of senior management in identifying and mitigating key operational risks across the Bank;
- Independent control and support functions that monitor operational risk on a daily basis, and implementation of extensive policies and procedures, and controls designed to prevent the occurrence of operational risk events;
- Proactive communication between revenue-producing units and independent control and support functions; and
- A network of systems to facilitate the collection of data used to analyze and assess our operational risk exposure.

We combine top-down and bottom-up approaches to manage and measure operational risk. From a top-down perspective, senior management assesses Bank and business-level operational risk profiles. From a bottom-up perspective, revenue-producing units and independent control and support functions at the Bank are responsible for risk identification and risk management on a day-to-day basis, including escalating operational risks to senior management.

Our operational risk management framework is in part designed to comply with the operational risk measurement rules under the Revised Capital Framework and has evolved based on the changing needs of our businesses and regulatory guidance.

Our operational risk management framework comprises the following practices:

- Risk identification and assessment;
- Risk measurement; and
- Risk monitoring and reporting.

Internal Audit performs an independent review of our operational risk management framework, including our key controls, processes and applications, on an annual basis to assess the effectiveness of our framework.

The Bank expanded its existing risk management platform and controls to incorporate the additional employees, vendors, technology, call center and compliance controls, including the expansion of fraud prevention, anti-money laundering and consumer compliance considerations, related to the growing number of retail customers as a result of both the acquisition of GE Capital Bank's online deposit platform and the establishment of Marcus.

### Risk Identification and Assessment

The core of our operational risk management framework is risk identification and assessment. We have a comprehensive data collection process, which is in line with GS Group's policies and procedures, for operational risk events.

The Bank adheres to GS Group's policies that require revenue-producing units and independent control and support functions to report and escalate operational risk events. When operational risk events are identified, the policies require that the events be documented and analyzed to determine whether changes are required in our systems and/or processes to further mitigate the risk of future events.

In addition, the GS Group systems capture internal operational risk event data, key metrics such as transaction volumes, and statistical information such as performance trends. We use an internally developed operational risk management application to aggregate and organize this information. One of GS Group's key risk identification and assessment tools is an operational risk and control self-assessment process which is performed by managers from both revenue-producing units and independent control and support functions. This process consists of the identification and rating of operational risks, on a forward-looking basis, and the related controls. The results from this process are analyzed to evaluate operational risk exposures and identify businesses, activities or products with heightened levels of operational risk.

### Risk Measurement

We measure our operational risk exposure over a twelve-month time horizon using both statistical modeling and scenario analyses, which involve qualitative assessments of the potential frequency and extent of potential operational risk losses, for each business. Operational risk measurement incorporates qualitative and quantitative assessments of factors including:

- Internal and external operational risk event data;
- Assessments of internal controls;
- Evaluations of the complexity of business activities;
- The degree of and potential for automation in processes;
- New activity information;
- The legal and regulatory environment;
- Changes in the markets for our products and services, including the diversity and sophistication of our customers and counterparties; and
- Liquidity of the capital markets and the reliability of the infrastructure that supports the capital markets.

The results from these scenario analyses are used to monitor changes in operational risk and to determine business lines that may have heightened exposure to operational risk. These analyses ultimately are used in the determination of the appropriate level of operational risk capital to hold.

### Risk Monitoring and Reporting

We evaluate changes in the operational risk profile of the Bank and its businesses, including changes in business mix or jurisdictions in which we operate, by monitoring the factors noted above at a Bank level. We have both preventive and detective internal controls, which are designed to reduce the frequency and severity of operational risk losses and the probability of operational risk events. We monitor the results of assessments and independent internal audits of these internal controls.

We also provide periodic operational risk reports to senior management, risk committees and the Bank Board. In addition, we have established thresholds to monitor the impact of an operational risk event, including single loss events and cumulative losses over a twelve-month period, as well as escalation protocols. We also provide periodic operational risk reports, which include incidents that breach escalation thresholds, to senior management and the Bank Risk Committee.

### Model Review and Validation

The statistical models utilized by Operational Risk Management are subject to independent review and validation by Model Risk Management. See "Model Risk Management" for further information about the review and validation of these models.

## Model Risk Management

### Overview

Model risk is the potential for adverse consequences from decisions made based on model outputs that may be incorrect or used inappropriately. We rely on quantitative models across our business activities primarily to value certain financial assets and liabilities, to monitor and manage our risk, and to measure and monitor our regulatory capital.

The Bank's framework for managing model risk is consistent with and part of GS Group's framework. GS Group's model risk management framework is managed through a governance structure and risk management controls, which encompass standards designed to ensure we maintain a comprehensive model inventory, including risk assessment and classification, sound model development practices, independent review and model-specific usage controls.

The GS Group Firmwide Risk Committee and the GS Group Firmwide Model Risk Control Committee oversee our model risk management framework. Model Risk Management, which is independent of model developers, model owners and model users, reports to GS Group's chief risk officer. Model Risk Management has primary responsibility for identifying and reporting significant risks associated with models. Model Risk Management provides periodic updates to senior management, risk committees, including the Bank Risk Committee and the GS Group Risk Committee of the Board. The Bank makes use of a Service Level Agreement with Model Risk Management. The Bank's chief risk officer monitors whether Model Risk Management is providing satisfactory service through evaluating key performance indicators.

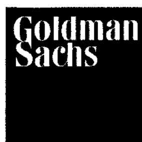
### Model Review and Validation

Model Risk Management consists of quantitative professionals who perform an independent review, validation and approval of models. This review includes an analysis of the model documentation, independent testing, an assessment of the appropriateness of the methodology used, and verification of compliance with model development and implementation standards. Model Risk Management reviews all existing models on an annual basis, as well as new models or significant changes to models.

The model validation process incorporates a review of models and trade and risk parameters across a broad range of scenarios (including extreme conditions) in order to critically evaluate and verify:

- The model's conceptual soundness, including the reasonableness of model assumptions, and suitability for intended use;
- The testing strategy utilized by the model developers to ensure that the models function as intended;
- The suitability of the calculation techniques incorporated in the model;
- The model's accuracy in reflecting the characteristics of the related product and its significant risks;
- The model's consistency with models for similar products; and
- The model's sensitivity to input parameters and assumptions.

See "Critical Accounting Policies — Fair Value — Review of Valuation Models," "Liquidity Risk Management," "Market Risk Management," "Credit Risk Management" and "Operational Risk Management" for further information about our use of models within these areas.



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**Bank USA**

March, 20 2017

To the Federal Deposit Insurance Corporation, Federal Reserve Bank of New York, New York State Department of Financial Services and the Audit Committee of the Board of Directors of Goldman Sachs Bank USA (the "Bank")

**Management's Assessment of Internal Control over Financial Reporting**

The management of the Bank is responsible for (i) preparing the Bank's annual financial statements in accordance with generally accepted accounting principles, and (ii) establishing and maintaining an adequate internal control structure and procedures for financial reporting, including controls over the preparation of regulatory financial statements in accordance with the instructions for the Call Report.

The Bank's internal control over financial reporting is a process designed under the supervision of the Bank's principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of reliable financial statements in accordance with U.S. generally accepted accounting principles and the instructions for the Call Report, and financial statements for regulatory reporting purposes.

The Bank's internal control over financial reporting includes policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets of the Bank; (ii) provide reasonable assurances that transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles and financial statements for regulatory reporting purposes, and that receipts and expenditures of the Bank are being made only in accordance with authorizations of management and directors of the Bank; and (iii) provide reasonable assurance regarding prevention, or timely detection and correction, of unauthorized acquisition, use, or disposition of the Bank'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 and correct, misstatements. Also, projections of any evaluation of effectiveness of 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 and procedures may deteriorate.

Management assessed the effectiveness of the Bank's internal control over financial reporting, including controls over the preparation of regulatory financial statements in accordance with U.S. generally accepted accounting principles and the instructions for the Call Report, as of December 31, 2016, based on the framework established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Based upon its assessment, management has concluded that, as of December 31, 2016, the Bank's internal control over financial reporting, including controls over the preparation of regulatory financial statements in accordance with U.S. generally accepted accounting principles and the instructions for the Call Report, is effective based on the criteria established in Internal Control – Integrated Framework.

Management's assessment of the effectiveness of internal control over financial reporting, including controls over the preparation of regulatory financial statements in accordance with the instructions for the Call Report, as of December 31, 2016, has been audited by PricewaterhouseCoopers LLP, an independent public accounting firm, as stated in their report dated March 20, 2017.

**Management's Assessment of Compliance with Designated Laws and Regulations**

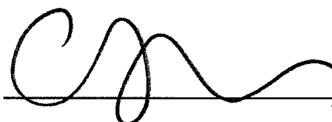
The management of the Bank is responsible for complying with Federal laws and regulations pertaining to insider loans and Federal and State laws and regulations pertaining to dividend restrictions.

The management of the Bank has assessed the Bank's compliance with the Federal laws and regulations pertaining to insider loans and the Federal and State laws and regulations pertaining to dividend restrictions during the fiscal year that ended on December 31, 2016. Based upon such assessment, management has concluded that the Bank has complied, in all material respects, with the Federal laws and regulations pertaining to insider loans and the Federal and State laws and regulations pertaining to dividend restrictions during the fiscal year that ended on December 31, 2016.

Chief Executive Officer

Stephen Scherr

Goldman Sachs Bank USA



Chief Financial Officer

Carey Halio

Goldman Sachs Bank USA

# Report of Independent Auditors

To the Board of Directors and Shareholder of Goldman Sachs Bank USA:

We have audited the accompanying consolidated financial statements of Goldman Sachs Bank USA and its subsidiaries (the "Bank"), which comprise the consolidated statements of financial condition as of December 31, 2016 and December 31, 2015, and the related consolidated statements of earnings, comprehensive income, changes in shareholder's equity and cash flows for the years then ended. We also have audited the Bank's internal control over financial reporting as of December 31, 2016 based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

## *Management's Responsibility for the Consolidated Financial Statements and Internal Control over Financial Reporting*

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of effective internal control over financial reporting relevant to the preparation and fair presentation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error. Management is also responsible for its assessment about the effectiveness of internal control over financial reporting, included in the accompanying Management Report, under the heading "Management's Assessment of Internal Control over Financial Reporting".

## *Auditors' Responsibility*

Our responsibility is to express an opinion on the consolidated financial statements and an opinion on the Bank's internal control over financial reporting based on our audits. We conducted our audits 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 consolidated financial statements are free from material misstatement and whether effective internal control over financial reporting was maintained in all material respects.

An audit of financial statements involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Bank's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit of financial statements also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

An audit of internal control over financial reporting involves performing procedures to obtain evidence about whether a material weakness exists. The procedures selected depend on our judgment, including assessment of the risk that a material weakness exists. An audit of internal control over financial reporting also involves obtaining an understanding of internal control over financial reporting and testing and evaluating the design and operating effectiveness of internal control over financial reporting based on the assessed risk.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

*PricewaterhouseCoopers LLP, PricewaterhouseCoopers Center, 300 Madison Avenue, New York, NY 10017*
*T: (646) 471 3000, F: (813) 286 6000*, www.pwc.com/us

### *Definition and Inherent Limitations of Internal Control Over Financial Reporting*

A company's internal control over financial reporting is a process effected by those charged with governance, management, and other personnel, designed to provide reasonable assurance regarding the preparation of reliable financial statements in accordance with accounting principles generally accepted in the United States of America. Because management's assessment and our audit were conducted to meet the reporting requirements of Section 112 of the Federal Deposit Insurance Corporation Improvement Act (FDICIA), our audit of the Bank's internal control over financial reporting included controls over the preparation of financial statements in accordance with accounting principles generally accepted in the United States of America and with the Federal Financial Institutions Examination Council Instructions for Consolidated Reports of Condition and Income. A company'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 assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and those charged with governance; and (iii) provide reasonable assurance regarding prevention, or timely detection and correction, of unauthorized acquisition, use, or disposition of the company'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 and correct, misstatements. Also, projections of any assessment 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.

### *Opinions*

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Bank as of December 31, 2016 and 2015, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Bank maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

### *Other Matter*

We did not perform auditing procedures on "Management's Assessment of Compliance with Designated Laws and Regulations" in the accompanying Management Report, and accordingly, we do not express an opinion or provide any assurance on it.

PricewaterhouseCoopers LLP

March 20, 2017

GOLDMAN SACHS BANK USA AND SUBSIDIARIES

# Consolidated Statements of Earnings

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Revenues** | | |
| Interest income | **$ 2,702** | $ 2,049 |
| Interest expense | **1,183** | 650 |
| Net interest income | **1,519** | 1,399 |
| | | |
| Gains and losses from financial instruments, net | **1,646** | 1,803 |
| Other revenues | **170** | 177 |
| Provision for losses on loans and lending commitments | **(71)** | (114) |
| Total non-interest revenues | **1,745** | 1,866 |
| Net revenues, including net interest income | **3,264** | 3,265 |
| | | |
| **Operating expenses** | | |
| Compensation and benefits | **234** | 162 |
| Service charges | **523** | 442 |
| Other expenses | **344** | 199 |
| Total operating expenses | **1,101** | 803 |
| | | |
| Pre-tax earnings | **2,163** | 2,462 |
| Provision for taxes | **705** | 780 |
| **Net earnings** | **$ 1,458** | $ 1,682 |

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

# Consolidated Statements of Comprehensive Income

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Net earnings | **$ 1,458** | $ 1,682 |
| Other comprehensive loss adjustments, net of tax: | | |
| Debt valuation adjustment | **(31)** | – |
| **Comprehensive income** | **$ 1,427** | $ 1,682 |

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

GOLDMAN SACHS BANK USA AND SUBSIDIARIES

# Consolidated Statements of Financial Condition

| *$ in millions, except per share amounts* | As of December 2016 | As of December 2015 |
|---|---|---|
| **Assets** | | |
| Cash | **$ 74,668** | $ 50,045 |
| Collateralized agreements: | | |
| Securities purchased under agreements to resell (includes $2,825 as of December 2016 and $1,025 as of December 2015, at fair value) | **3,673** | 2,481 |
| Receivables: | | |
| Loans receivable | **37,907** | 37,874 |
| Customers and counterparties, brokers, dealers and clearing organizations | **5,857** | 6,085 |
| Financial instruments owned, at fair value (includes $2,719 as of December 2016 and $5,358 as of December 2015, pledged as collateral) | **35,456** | 36,601 |
| Other assets | **1,551** | 1,416 |
| **Total assets** | **$ 159,112** | $ 134,502 |
| | | |
| **Liabilities and shareholder's equity** | | |
| Deposits (includes $5,301 as of December 2016 and $6,150 as of December 2015, at fair value) | **$ 114,985** | $ 88,284 |
| Collateralized financings: | | |
| Securities sold under agreements to repurchase, at fair value | **310** | 3,425 |
| Other secured financings (includes $2,432 as of December 2016 and $2,919 as of December 2015, at fair value) | **2,569** | 3,026 |
| Payables to customers and counterparties, brokers, dealers and clearing organizations | **3,757** | 3,495 |
| Financial instruments sold, but not yet purchased, at fair value | **8,805** | 8,510 |
| Unsecured borrowings (includes $236 as of December 2016 and $98 as of December 2015, at fair value) | **2,253** | 2,159 |
| Other liabilities and accrued expenses | **1,822** | 2,419 |
| Total liabilities | **134,501** | 111,318 |
| | | |
| **Commitments, contingencies and guarantees** | | |
| | | |
| **Shareholder's equity** | | |
| Shareholder's equity (includes common stock, par value $100 per share; 80,000,000 shares authorized, issued and outstanding) | **24,611** | 23,184 |
| **Total liabilities and shareholder's equity** | **$ 159,112** | $ 134,502 |

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

# Consolidated Statements of Changes in Shareholder's Equity

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Shareholder's equity** | | |
| Shareholder's equity, beginning balance | **$ 23,184** | $ 21,502 |
| Net earnings | **1,458** | 1,682 |
| Other comprehensive loss | **(31)** | – |
| **Shareholder's equity, ending balance** | **$ 24,611** | $ 23,184 |

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

# Consolidated Statements of Cash Flows

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Cash flows from operating activities** | | |
| Net earnings | **$ 1,458** | $ 1,682 |
| Adjustments to reconcile net earnings to net cash provided by/(used for) operating activities: | | |
| Depreciation and amortization | **13** | 2 |
| Deferred income taxes | **(19)** | 79 |
| Share-based compensation | **24** | 20 |
| Provision for losses on loans and lending commitments | **71** | 114 |
| Changes in operating assets and liabilities: | | |
| Loans held for sale | **(313)** | (1,224) |
| Receivables and payables (excluding loans receivable), net | **490** | 300 |
| Collateralized transactions (excluding other secured financings), net | **(4,307)** | (124) |
| Financial instruments owned, at fair value | **1,194** | 2,762 |
| Financial instruments sold, but not yet purchased, at fair value | **295** | 22 |
| Other, net | **(785)** | (481) |
| Net cash provided by/(used for) operating activities | **(1,879)** | 3,152 |
| **Cash flows from investing activities** | | |
| Net cash acquired in business acquisition | **16,491** | – |
| Loans receivable, net (excluding loans held for sale) | **250** | (11,152) |
| Other | **(49)** | – |
| Net cash provided by/(used for) investing activities | **16,692** | (11,152) |
| **Cash flows from financing activities** | | |
| Deposits, net | **10,247** | 15,263 |
| Proceeds from issuance of/(repayment of) other secured financings | **(492)** | 2,927 |
| Unsecured borrowings, net | **(79)** | – |
| Derivative contracts with a financing element, net | **134** | (1) |
| Net cash provided by financing activities | **9,810** | 18,189 |
| Net increase in cash | **24,623** | 10,189 |
| Cash, beginning balance | **50,045** | 39,856 |
| **Cash, ending balance** | **$ 74,668** | $ 50,045 |

**SUPPLEMENTAL DISCLOSURES:**

Cash payments for interest were $1.00 billion and $615 million for 2016 and 2015, respectively.

Cash payments for income taxes, net of refunds were $1.61 billion and $837 million for 2016 and 2015, respectively.

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

## Note 1.
## Description of Business

Goldman Sachs Bank USA, together with its consolidated subsidiaries (collectively, the Bank), is a New York State-chartered bank and a member of the Federal Reserve System. The Bank is supervised and regulated by the Board of Governors of the Federal Reserve System (Federal Reserve Board), the New York State Department of Financial Services (NYDFS) and the U.S. Consumer Financial Protection Bureau (CFPB), and is a member of the Federal Deposit Insurance Corporation (FDIC). The Bank's deposits are insured by the FDIC up to the maximum amount provided by law. The Bank is registered with the U.S. Commodity Futures Trading Commission (CFTC) as a swap dealer and as a government securities dealer subject to the rules and regulations of the U.S. Department of the Treasury (Treasury).

The Bank's principal office is located in New York, New York. The Bank operates one domestic branch located in Salt Lake City, Utah, which is regulated by the Utah Department of Financial Institutions. The Bank also has a branch in London, United Kingdom, which is regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

The Bank is a wholly-owned subsidiary of The Goldman Sachs Group, Inc. (Group Inc.). Group Inc. is a bank holding company under the U.S. Bank Holding Company Act of 1956 (BHC Act), a financial holding company under amendments to the BHC Act effected by the U.S. Gramm-Leach-Bliley Act of 1999, and is subject to supervision and examination by the Federal Reserve Board.

The Bank's primary activities include lending, engaging in derivatives transactions and deposit taking. The Bank is a lender to private wealth management clients of Goldman Sachs & Co. (GS&Co.), to institutional and corporate clients and to retail customers. The Bank enters into interest rate, credit, currency, commodity and equity derivatives and related products for the purpose of market making and risk management. The Bank accepts deposits from private wealth management clients, online retail customers and through deposit sweep programs and issues brokered certificates of deposit.

The following activities are conducted in the Bank's significant operating subsidiaries:

Goldman Sachs Mitsui Marine Derivative Products, L.P. (MMDP), a Delaware limited partnership, acts as an intermediary in transactions involving derivative contracts. MMDP is able to provide credit rating enhancement to derivative products due to its partnership with an external party, Mitsui Sumitomo Insurance Co., Ltd. (Mitsui Sumitomo).

Goldman Sachs Mortgage Company, a New York limited partnership, originates commercial mortgage loans and purchases commercial and residential mortgage loans and other consumer loan assets for securitization and market making.

All subsidiaries of the Bank are wholly-owned by the Bank, with the exception of MMDP, in which Mitsui Sumitomo has a 50% interest.

## Note 2.
## Basis of Presentation

These consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP) and include the accounts of the Bank and all other entities in which the Bank has a controlling financial interest. Intercompany transactions and balances have been eliminated.

All references to 2016 and 2015 refer to the Bank's years ended, or the dates, as the context requires, December 31, 2016 and December 31, 2015, respectively. Any reference to a future year refers to a year ending on December 31 of that year. Certain reclassifications have been made to previously reported amounts to conform to the current presentation.

## Note 3.
## Significant Accounting Policies

The Bank's significant accounting policies include accounting for loans and lending commitments at amortized cost net of allowance for loan losses, when and how to measure the fair value of assets and liabilities, accounting for deposits and when to consolidate an entity. See Note 9 for policies on accounting for loans receivable and lending commitments, Notes 5 through 8 for policies on fair value measurements, Note 13 for policies on accounting for deposits, and below and Note 11 for policies on consolidation accounting. All other significant accounting policies are either described below or included in the following footnotes:

| | |
|---|---|
| Financial Instruments Owned, at Fair Value and Financial Instruments Sold, But Not Yet Purchased, at Fair Value | Note 4 |
| Fair Value Measurements | Note 5 |
| Cash Instruments | Note 6 |
| Derivatives and Hedging Activities | Note 7 |
| Fair Value Option | Note 8 |
| Loans Receivable | Note 9 |
| Collateralized Agreements and Financings | Note 10 |
| Variable Interest Entities | Note 11 |
| Other Assets | Note 12 |
| Deposits | Note 13 |
| Unsecured Borrowings | Note 14 |
| Other Liabilities and Accrued Expenses | Note 15 |
| Commitments, Contingencies and Guarantees | Note 16 |
| Regulation and Capital Adequacy | Note 17 |
| Transactions with Related Parties | Note 18 |
| Interest Income and Interest Expense | Note 19 |
| Income Taxes | Note 20 |
| Credit Concentrations | Note 21 |
| Legal Proceedings | Note 22 |
| Employee Incentive Plans and Employee Benefit Plans | Note 23 |

### Consolidation

The Bank consolidates entities in which the Bank has a controlling financial interest. The Bank determines whether it has a controlling financial interest in an entity by first evaluating whether the entity is a voting interest entity or a variable interest entity (VIE).

**Voting Interest Entities.** Voting interest entities are entities in which (i) the total equity investment at risk is sufficient to enable the entity to finance its activities independently and (ii) the equity holders have the power to direct the activities of the entity that most significantly impact its economic performance, the obligation to absorb the losses of the entity and the right to receive the residual returns of the entity. The usual condition for a controlling financial interest in a voting interest entity is ownership of a majority voting interest. If the Bank has a controlling majority voting interest in a voting interest entity, the entity is consolidated.

**Variable Interest Entities.** A VIE is an entity that lacks one or more of the characteristics of a voting interest entity. The Bank has a controlling financial interest in a VIE when the Bank has a variable interest or interests that provide it with (i) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance, and (ii) the obligation to absorb losses of the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. See Note 11 for further information about VIEs.

### Use of Estimates

Preparation of these consolidated financial statements requires management to make certain estimates and assumptions, the most important of which relate to the allowance for losses on loans and lending commitments held for investment, fair value measurements, and the provisions for losses that may arise from litigation, regulatory proceedings, including governmental investigations, and tax audits. These estimates and assumptions are based on the best available information but actual results could be materially different.

### Revenue Recognition – Financial Assets and Financial Liabilities at Fair Value

Financial instruments owned, at fair value and Financial instruments sold, but not yet purchased, at fair value are recorded at fair value either under the fair value option or in accordance with other U.S. GAAP. In addition, the Bank has elected to account for certain of its other financial assets and financial liabilities at fair value by electing the fair value option. The fair value of a financial instrument is the amount 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. Financial assets are marked to bid prices and financial liabilities are marked to offer prices. Fair value measurements do not include transaction costs. Fair value gains or losses are included in "Gains and losses from financial instruments, net." See Notes 5 through 8 for further information about fair value measurements. In addition, the Bank recognizes income related to the syndication of loans and lending commitments and other fees from affiliates in "Gains and losses from financial instruments, net."

### Transfers of Assets

Transfers of assets are accounted for as sales when the Bank has relinquished control over the assets transferred. For transfers of assets accounted for as sales, any gains or losses are initially recognized in "Gains and losses from financial instruments, net." Assets or liabilities that arise from the Bank's continuing involvement with transferred assets are recognized at fair value. For transfers of assets that are not accounted for as sales, the assets generally remain in "Financial instruments owned, at fair value" or "Loans receivable" and the transfer is accounted for as a collateralized financing, with the related interest expense recognized over the life of the transaction. See Note 10 for further information about transfers of assets accounted for as collateralized financings.

### Securitization Activities

The Bank transfers portfolios of commercial mortgages to its affiliates for purposes of securitization. The Bank accounts for the transfer as a sale when it has relinquished control over the transferred assets. The Bank accounts for assets pending transfer at fair value and therefore does not typically recognize significant gains or losses upon the transfer of assets. The Bank generally receives cash in exchange for the transferred assets. As of December 2016 and December 2015, the Bank had no continuing involvement with transferred assets.

### Cash

Cash is comprised of highly liquid overnight deposits held in the ordinary course of business. As of December 2016 and December 2015, cash included $74.41 billion and $49.62 billion, respectively, of interest-bearing deposits with banks. Of these amounts, $74.24 billion and $49.36 billion were held at the Federal Reserve Bank of New York, which exceeded regulatory reserve requirements of $153 million and $110 million as of December 2016 and December 2015, respectively. As of December 2016 and December 2015, $98 million and $125 million, respectively, of "Cash" was segregated for regulatory and other purposes.

### Receivables from Customers and Counterparties, Brokers, Dealers and Clearing Organizations

Receivables from customers and counterparties, brokers, dealers and clearing organizations are primarily comprised of collateral posted in connection with certain derivative transactions and receivables related to unsettled trades. Receivables from customers and counterparties, brokers, dealers and clearing organizations are accounted for at amortized cost net of estimated uncollectible amounts, which generally approximates fair value. While these receivables are carried at amounts that approximate fair value, they are not accounted for at fair value under the fair value option or at fair value in accordance with other U.S. GAAP and therefore are not included in the Bank's fair value hierarchy in Notes 6 through 8. Had these receivables been included in the Bank's fair value hierarchy, substantially all would have been classified in level 2 as of December 2016 and December 2015. Interest on receivables from customers and counterparties, brokers, dealers and clearing organizations is recognized over the life of the transaction and included in "Interest income."

### Payables to Customers and Counterparties, Brokers, Dealers and Clearing Organizations

Payables to customers and counterparties, brokers, dealers and clearing organizations primarily consist of collateralized payables related to client transactions, including collateral received in connection with certain derivative transactions. Payables to customers and counterparties, brokers, dealers and clearing organizations are accounted for at cost plus accrued interest, which generally approximates fair value.

While these payables are carried at amounts that approximate fair value, they are not accounted for at fair value under the fair value option or at fair value in accordance with other U.S. GAAP and therefore are not included in the Bank's fair value hierarchy in Notes 6 through 8. Had these payables been carried at fair value and included in the Bank's fair value hierarchy, substantially all would have been classified in level 2 as of December 2016 and December 2015. Interest on payables to customers and counterparties, brokers, dealers and clearing organizations is recognized over the life of the transaction and included in "Interest expense."

### Offsetting Assets and Liabilities

To reduce credit exposures on derivatives and securities financing transactions, the Bank may enter into master netting agreements or similar arrangements (collectively, netting agreements) with counterparties that permit it to offset receivables and payables with such counterparties. A netting agreement is a contract with a counterparty that permits net settlement of multiple transactions with that counterparty, including upon the exercise of termination rights by a non-defaulting party. Upon exercise of such termination rights, all transactions governed by the netting agreement are terminated and a net settlement amount is calculated. In addition, the Bank receives and posts cash and securities collateral with respect to its derivatives and securities financing transactions, subject to the terms of the related credit support agreements or similar arrangements (collectively, credit support agreements). An enforceable credit support agreement grants the non-defaulting party exercising termination rights the right to liquidate the collateral and apply the proceeds to any amounts owed. In order to assess enforceability of the Bank's right of setoff under netting and credit support agreements, the Bank evaluates various factors including applicable bankruptcy laws, local statutes and regulatory provisions in the jurisdiction of the parties to the agreement.

Derivatives are reported on a net-by-counterparty basis (i.e., the net payable or receivable for derivative assets and liabilities for a given counterparty) in the consolidated statements of financial condition when a legal right of setoff exists under an enforceable netting agreement. Resale and repurchase agreements with the same term and currency are presented on a net-by-counterparty basis in the consolidated statements of financial condition when such transactions meet certain settlement criteria and are subject to netting agreements.

In the consolidated statements of financial condition, derivatives are reported net of cash collateral received and posted under enforceable credit support agreements, when transacted under an enforceable netting agreement. In the consolidated statements of financial condition, resale and repurchase agreements are not reported net of the related cash and securities received or posted as collateral. Certain other receivables and payables with affiliate broker dealers that meet the criteria of offsetting are reported on a net basis in the consolidated statements of financial condition. See Note 10 for further information about collateral received and pledged, including rights to deliver or repledge collateral. See Notes 7 and 10 for further information about offsetting.

### Foreign Currency Translation

Assets and liabilities denominated in non-U.S. currencies are translated at rates of exchange prevailing on the date of the consolidated statements of financial condition and revenues and expenses are translated at average rates of exchange for the period. Foreign currency remeasurement gains or losses on transactions in nonfunctional currencies are recognized in earnings.

### Recent Accounting Developments

**Revenue from Contracts with Customers (ASC 606).** In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." This ASU, as amended, provides comprehensive guidance on the recognition of revenue from customers arising from the transfer of goods and services, guidance on accounting for certain contract costs, and new disclosures.

The ASU is effective for the Bank in January 2018 under a modified retrospective approach or retrospectively to all periods presented. The Bank's implementation efforts include identifying revenues and costs within the scope of the ASU, reviewing contracts, and analyzing any changes to its existing revenue recognition policies. As a result of adopting this ASU, the Bank may, among other things, be required to change the current presentation of certain costs from a net presentation within net revenues to a gross basis, or vice versa. The Bank is still evaluating the effect of the ASU on its financial condition, results of operations and cash flows.

**Amendments to the Consolidation Analysis (ASC 810).** In February 2015, the FASB issued ASU No. 2015-02, "Consolidation (Topic 810) — Amendments to the Consolidation Analysis." This ASU eliminates the deferral of the requirements of ASU No. 2009-17, "Consolidations (Topic 810) — Improvements to Financial Reporting by Enterprises Involved with Variable Interest Entities" for certain interests in investment funds and provides a scope exception for certain investments in money market funds. It also makes several modifications to the consolidation guidance for VIEs and general partners' investments in limited partnerships, as well as modifications to the evaluation of whether limited partnerships are VIEs or voting interest entities.

The Bank adopted the ASU in January 2016, using a modified retrospective approach. The impact of adoption was not material to the Bank's statements of financial condition, results of operations or cash flows.

**Simplifying the Presentation of Debt Issuance Costs (ASC 835).** In April 2015, the FASB issued ASU No. 2015-03, "Interest — Imputation of Interest (Subtopic 835-30) — Simplifying the Presentation of Debt Issuance Costs." This ASU simplifies the presentation of debt issuance costs by requiring that these costs related to a recognized debt liability be presented in the statements of financial condition as a direct reduction from the carrying amount of that liability.

The Bank early adopted the ASU in September 2015, using a modified retrospective approach. Adoption of the ASU did not materially affect the Bank's financial condition, results of operations or cash flows.

**Simplifying the Accounting for Measurement-Period Adjustments (ASC 805).** In September 2015, the FASB issued ASU No. 2015-16, "Business Combinations (Topic 805) — Simplifying the Accounting for Measurement-Period Adjustments." This ASU eliminates the requirement for an acquirer in a business combination to account for measurement-period adjustments retrospectively.

The Bank adopted the ASU in January 2016. Adoption of the ASU did not materially affect the Bank's financial condition, results of operations or cash flows.

**Recognition and Measurement of Financial Assets and Financial Liabilities (ASC 825).** In January 2016, the FASB issued ASU No. 2016-01, "Financial Instruments (Topic 825) — Recognition and Measurement of Financial Assets and Financial Liabilities." This ASU amends certain aspects of recognition, measurement, presentation and disclosure of financial instruments. It includes a requirement to present separately in other comprehensive income changes in fair value attributable to a Bank's own credit spreads (debt valuation adjustment or DVA), net of tax, on financial liabilities for which the fair value option was elected.

The ASU is effective for the Bank in January 2018. Early adoption is permitted under a modified retrospective approach for the requirements related to DVA. In January 2016, the Bank early adopted this ASU for the requirements related to DVA, and reclassified the cumulative DVA, a gain of $13 million (net of tax), from retained earnings to accumulated other comprehensive loss. The Bank does not expect the adoption of the remaining provisions of the ASU to have a material impact on its financial condition, results of operations or cash flows.

**Leases (ASC 842).** In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)." This ASU requires that, for leases longer than one year, a lessee recognize in the statements of financial condition a right-of-use asset, representing the right to use the underlying asset for the lease term, and a lease liability, representing the liability to make lease payments. It also requires that for finance leases, a lessee recognize interest expense on the lease liability, separately from the amortization of the right-of-use asset in the statements of earnings, while for operating leases, such amounts should be recognized as a combined expense. In addition, this ASU requires expanded disclosures about the nature and terms of lease agreements.

The ASU is effective for the Bank in January 2019 under a modified retrospective approach. Early adoption is permitted. The Bank's implementation efforts include reviewing existing leases and service contracts with affiliates, which may include embedded leases. Based on implementation efforts performed to date, the Bank does not expect the amount of the potential gross up to have a material impact on its financial condition.

**Measurement of Credit Losses on Financial Instruments (ASC 326).** In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments — Credit Losses (Topic 326) — Measurement of Credit Losses on Financial Instruments." This ASU amends several aspects of the measurement of credit losses on financial instruments, including replacing the existing incurred credit loss model and other models with the Current Expected Credit Losses (CECL) model and amending certain aspects of accounting for purchased financial assets with deterioration in credit quality since origination.

Under CECL, the allowance for losses for financial assets that are measured at amortized cost should reflect management's estimate of credit losses over the remaining expected life of the financial assets. Expected credit losses for newly recognized financial assets, as well as changes to expected credit losses during the period, would be recognized in earnings. For certain purchased financial assets with deterioration in credit quality since origination, an initial allowance would be recorded for expected credit losses and recognized as an increase to the purchase price rather than as an expense. Expected credit losses, including losses on off-balance-sheet exposures such as lending commitments, will be measured based on historical experience, current conditions and forecasts that affect the collectability of the reported amount.

The ASU is effective for the Bank in January 2020 under a modified retrospective approach. Early adoption is permitted in January 2019. Adoption of the ASU will result in earlier recognition of credit losses and an increase in the recorded allowance for certain purchased loans with deterioration in credit quality since origination with a corresponding increase to their gross carrying value. The impact of adoption of this ASU on the Bank's financial condition, results of operations and cash flows will depend on, among other things, the economic environment and the type of financial assets held by the Bank on the date of adoption.

**Classification of Certain Cash Receipts and Cash Payments (ASC 230).** In August 2016, the FASB issued ASU No. 2016-15, "Statement of Cash Flows (Topic 230) — Classification of Certain Cash Receipts and Cash Payments." This ASU provides guidance on the disclosure and classification of certain items within the statements of cash flows.

The ASU is effective for the Bank in January 2018 under a retrospective approach. Early adoption is permitted. Since the ASU only impacts classification in the statements of cash flows, adoption will not affect the Bank's cash.

**Clarifying the Definition of a Business (ASC 805).** In January 2017, the FASB issued ASU No. 2017-01, "Business Combinations (Topic 805) – Clarifying the Definition of a Business." The ASU amends the definition of a business and provides a threshold which must be considered to determine whether a transaction is an asset acquisition or a business combination. The ASU is effective for the Bank in January 2018 under a prospective approach. Early adoption is permitted. The Bank is still evaluating the effect of the ASU on its financial condition, results of operations and cash flows.

**Restricted Cash (ASC 230).** In November 2016, the FASB issued ASU No. 2016-18, "Statement of Cash Flows (Topic 230) – Restricted Cash." This ASU requires that cash segregated for regulatory and other purposes be included in cash and cash equivalents disclosed in the statements of cash flows and is required to be applied retrospectively.

The Bank early adopted the ASU in December 2016. Adoption of the ASU did not affect the Bank's consolidated statements of financial condition or cash flows.

## Note 4.
## Financial Instruments Owned, at Fair Value and Financial Instruments Sold, But Not Yet Purchased, at Fair Value

Financial instruments owned, at fair value and financial instruments sold, but not yet purchased, at fair value are accounted for at fair value either under the fair value option or in accordance with other U.S. GAAP. See Note 8 for further information about other financial assets and financial liabilities accounted for at fair value under the fair value option.

The table below presents the Bank's financial instruments owned, at fair value and financial instruments sold, but not yet purchased, at fair value.

| *$ in millions* | Financial Instruments Owned | Financial Instruments Sold, But Not Yet Purchased |
|---|---|---|
| **As of December 2016** | | |
| U.S. government and federal agency obligations | **$ 14,026** | **$ 2,497** |
| Non-U.S. government and agency obligations | **40** | **6** |
| Loans and securities backed by: | | |
| Commercial real estate | **1,198** | **–** |
| Residential real estate | **6,511** | **3** |
| Corporate loans and debt securities | **2,228** | **261** |
| Other | **438** | **–** |
| Investments in funds at NAV | **17** | **–** |
| Subtotal | **24,458** | **2,767** |
| Derivatives | **10,998** | **6,038** |
| **Total** | **$ 35,456** | **$ 8,805** |
| As of December 2015 | | |
| U.S. government and federal agency obligations | $ 14,707 | $ 2,232 |
| Non-U.S. government and agency obligations | 234 | 6 |
| Loans and securities backed by: | | |
| Commercial real estate | 1,510 | 1 |
| Residential real estate | 5,990 | 2 |
| Corporate loans and debt securities | 2,916 | 292 |
| Other | 413 | – |
| Investments in funds at NAV | 17 | – |
| Subtotal | 25,787 | 2,533 |
| Derivatives | 10,814 | 5,977 |
| Total | $ 36,601 | $ 8,510 |

In the table above, other primarily consists of other debt obligations and equities.

### Gains and Losses from Financial Instruments, Net

The table below presents "Gains and losses from financial instruments, net."

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Product Type** | | |
| Interest rates | **$ (2,472)** | $ (1,994) |
| Currencies | **3,298** | 2,370 |
| Credit | **810** | 1,324 |
| Equity | **14** | 99 |
| Other | **(4)** | 4 |
| **Total** | **$ 1,646** | $ 1,803 |

In the table above:

- Gains/(losses) include both realized and unrealized gains and losses, and are primarily related to the Bank's financial instruments owned, at fair value and financial instruments sold, but not yet purchased, at fair value, including both derivative and non-derivative financial instruments, and the syndication of loans and lending commitments.
- Gains/(losses) exclude related interest income and interest expense. See Note 19 for further information about interest income and interest expense.
- Gains/(losses) are not representative of the manner in which the Bank manages its business activities because many of the Bank's market-making, lending and other activities utilize financial instruments across various product types. Accordingly, gains or losses in one product type frequently offset gains or losses in other product types. For example, many of the Bank's interest rate derivatives are sensitive to changes in foreign currency exchange rates and may be economically hedged with foreign currency contracts.

## Note 5.
## Fair Value Measurements

The fair value of a financial instrument is the amount 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. Financial assets are marked to bid prices and financial liabilities are marked to offer prices. Fair value measurements do not include transaction costs. The Bank measures certain financial assets and financial liabilities as a portfolio (i.e., based on its net exposure to market and/or credit risks).

The best evidence of fair value is a quoted price in an active market. If quoted prices in active markets are not available, fair value is determined by reference to prices for similar instruments, quoted prices or recent transactions in less active markets, or internally developed models that primarily use market-based or independently sourced inputs including, but not limited to, interest rates, volatilities, equity or debt prices, foreign exchange rates, commodity prices, credit spreads and funding spreads (i.e., the spread or difference between the interest rate at which a borrower could finance a given financial instrument relative to a benchmark interest rate).

U.S. GAAP has a three-level fair value hierarchy for disclosure of fair value measurements. This hierarchy prioritizes inputs to the valuation techniques used to measure fair value, giving the highest priority to level 1 inputs and the lowest priority to level 3 inputs. A financial instrument's level in this hierarchy is based on the lowest level of input that is significant to its fair value measurement. The fair value hierarchy is as follows:

**Level 1.** Inputs are unadjusted quoted prices in active markets to which the Bank had access at the measurement date for identical, unrestricted assets or liabilities.

**Level 2.** Inputs to valuation techniques are observable, either directly or indirectly.

**Level 3.** One or more inputs to valuation techniques are significant and unobservable.

The fair values for substantially all of the Bank's financial assets and financial liabilities are based on observable prices and inputs and are classified in levels 1 and 2 of the fair value hierarchy. Certain level 2 and level 3 financial assets and financial liabilities may require appropriate valuation adjustments that a market participant would require to arrive at fair value for factors such as counterparty and the Bank or its affiliates' credit quality, funding risk, transfer restrictions, liquidity and bid/offer spreads. Valuation adjustments are generally based on market evidence.

See Notes 6 through 8 for further information about fair value measurements of cash instruments, derivatives and other financial assets and financial liabilities accounted for at fair value primarily under the fair value option (including information about unrealized gains and losses related to level 3 financial assets and financial liabilities, and transfers in and out of level 3), respectively.

The table below presents financial assets and financial liabilities accounted for at fair value under the fair value option or in accordance with other U.S. GAAP. Counterparty and cash collateral netting represents the impact on derivatives of netting across levels of the fair value hierarchy. Netting among positions classified in the same level is included in that level.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Total level 1 financial assets | **$ 3,068** | $ 5,268 |
| Total level 2 financial assets | **84,649** | 82,266 |
| Total level 3 financial assets | **2,903** | 2,430 |
| Investments in funds at NAV | **17** | 17 |
| Counterparty and cash collateral netting | **(52,356)** | (52,355) |
| **Total financial assets at fair value** | **$ 38,281** | $ 37,626 |
| Total assets | **$ 159,112** | $ 134,502 |
| Total level 3 financial assets divided by: | | |
| Total assets | **1.8%** | 1.8% |
| Total financial assets at fair value | **7.6%** | 6.5% |
| Total level 1 financial liabilities | **$ 2,498** | $ 2,233 |
| Total level 2 financial liabilities | **33,480** | 45,831 |
| Total level 3 financial liabilities | **4,307** | 3,307 |
| Counterparty and cash collateral netting | **(23,201)** | (30,269) |
| **Total financial liabilities at fair value** | **$ 17,084** | $ 21,102 |
| Total level 3 financial liabilities divided by total financial liabilities at fair value | **25.2%** | 15.7% |

## Note 6.
## Cash Instruments

Cash instruments include U.S. government and federal agency obligations, non-U.S. government and agency obligations, mortgage-backed loans and securities, corporate loans and debt securities, investments in funds at NAV, and other non-derivative financial instruments owned and financial instruments sold, but not yet purchased. See below for the types of cash instruments included in each level of the fair value hierarchy and the valuation techniques and significant inputs used to determine their fair values. See Note 5 for an overview of the Bank's fair value measurement policies.

### Level 1 Cash Instruments

Level 1 cash instruments include U.S. government and non-U.S. government obligations. These instruments are valued using quoted prices for identical unrestricted instruments in active markets.

The Bank defines active markets for debt instruments based on both the average daily trading volume and the number of days with trading activity.

### Level 2 Cash Instruments

Level 2 cash instruments include U.S. government agency obligations, most mortgage-backed loans and securities, most corporate loans and debt securities, most lending commitments and certain other cash instruments.

Valuations of level 2 cash instruments can be verified to quoted prices, recent trading activity for identical or similar instruments, broker or dealer quotations or alternative pricing sources with reasonable levels of price transparency. Consideration is given to the nature of the quotations (e.g., indicative or firm) and the relationship of recent market activity to the prices provided from alternative pricing sources.

Valuation adjustments are typically made to level 2 cash instruments (i) if the cash instrument is subject to transfer restrictions and/or (ii) for other premiums and liquidity discounts that a market participant would require to arrive at fair value. Valuation adjustments are generally based on market evidence.

### Level 3 Cash Instruments

Level 3 cash instruments have one or more significant valuation inputs that are not observable. Absent evidence to the contrary, level 3 cash instruments are initially valued at transaction price, which is considered to be the best initial estimate of fair value. Subsequently, the Bank uses other methodologies to determine fair value, which vary based on the type of instrument. Valuation inputs and assumptions are changed when corroborated by substantive observable evidence, including values realized on sales of financial assets.

### Valuation Techniques and Significant Inputs of Level 3 Cash Instruments

Valuation techniques of level 3 cash instruments vary by instrument, but are generally based on discounted cash flow techniques. The valuation techniques and the nature of significant inputs used to determine the fair values of each type of level 3 cash instrument are described below:

**Loans and Securities Backed by Commercial Real Estate.** Loans and securities backed by commercial real estate are directly or indirectly collateralized by a single commercial real estate property or a portfolio of properties, and may include tranches of varying levels of subordination. Significant inputs are generally determined based on relative value analyses and include:

- Transaction prices in both the underlying collateral and instruments with the same or similar underlying collateral and the basis, or price difference, to such prices;
- Market yields implied by transactions of similar or related assets and/or current levels and changes in market indices such as the CMBX (an index that tracks the performance of commercial mortgage bonds);
- A measure of expected future cash flows in a default scenario (recovery rates) implied by the value of the underlying collateral, which is mainly driven by current performance of the underlying collateral, capitalization rates and multiples. Recovery rates are expressed as a percentage of notional or face value of the instrument and reflect the benefit of credit enhancements on certain instruments; and
- Timing of expected future cash flows (duration) which, in certain cases, may incorporate the impact of other unobservable inputs (e.g., prepayment speeds).

**Corporate Loans and Debt Securities.** Corporate loans and debt securities includes bank loans and bridge loans and corporate debt securities. Significant inputs are generally determined based on relative value analyses, which incorporate comparisons both to prices of credit default swaps that reference the same or similar underlying instrument or entity and to other debt instruments for the same issuer for which observable prices or broker quotations are available. Significant inputs include:

- Market yields implied by transactions of similar or related assets and/or current levels and trends of market indices such as CDX and LCDX (indices that track the performance of corporate credit and loans, respectively);
- Current performance and recovery assumptions and, where the Bank uses credit default swaps to value the related cash instrument, the cost of borrowing the underlying reference obligation; and
- Duration.

**Other Debt Obligations.** Significant inputs are generally determined based on relative value analyses, which incorporate comparisons both to prices of credit default swaps that reference the same or similar underlying instrument or entity and to other debt instruments for the same issuer for which observable prices or broker quotations are available. Significant inputs include:

- Market yields implied by transactions of similar or related assets and/or current levels and trends of market indices;
- Current performance and recovery assumptions and, where the Bank uses credit default swaps to value the related cash instrument, the cost of borrowing the underlying reference obligation; and
- Duration.

**Equities.** Equities primarily relates to equity investments made as part of the Bank's Community Reinvestment Act (CRA) activities. Recent third-party completed or pending transactions (e.g., merger proposals, tender offers, debt restructurings) are considered to be the best evidence for any change in fair value. When these are not available, the following valuation methodologies are used, as appropriate:

- Transactions in similar instruments; and
- Discounted cash flow techniques.

The Bank also considers changes in the outlook for the relevant industry and financial performance of the issuer as compared to projected performance. Significant inputs include:

- Market and transaction multiples;
- Discount rates, growth rates, and capitalization rates; and
- For equity instruments with debt-like features, market yields implied by transactions of similar or related assets, current performance and recovery assumptions, and duration.

### Fair Value of Cash Instruments by Level

The tables below present cash instrument assets and liabilities at fair value by level within the fair value hierarchy. In the tables below:

- Cash instrument assets and liabilities are included in "Financial instruments owned, at fair value" and "Financial instruments sold, but not yet purchased, at fair value," respectively.
- Cash instrument assets are shown as positive amounts and cash instrument liabilities are shown as negative amounts.

| | As of December 2016 | | | |
|---|---|---|---|---|
| *$ in millions* | **Level 1** | **Level 2** | **Level 3** | **Total** |
| **Assets** | | | | |
| U.S. government and federal agency obligations | $ 3,028 | $ 10,998 | $ – | $ 14,026 |
| Non-U.S. government and agency obligations | 40 | – | – | 40 |
| Loans and securities backed by: | | | | |
| Commercial real estate | – | 1,027 | 171 | 1,198 |
| Residential real estate | – | 6,511 | – | 6,511 |
| Corporate loans and debt securities | – | 1,923 | 305 | 2,228 |
| Other | – | 132 | 306 | 438 |
| Subtotal | $ 3,068 | $ 20,591 | $ 782 | $ 24,441 |
| Investments in funds at NAV | | | | 17 |
| **Total cash instrument assets** | | | | $ 24,458 |
| **Liabilities** | | | | |
| U.S. government and federal agency obligations | $ (2,497) | $ – | $ – | $ (2,497) |
| Non-U.S. government and agency obligations | (1) | (5) | – | (6) |
| Loans and securities backed by residential real estate | – | (3) | – | (3) |
| Corporate loans and debt securities | – | (237) | (24) | (261) |
| **Total cash instrument liabilities** | $ (2,498) | $ (245) | $ (24) | $ (2,767) |

| $ in millions | As of December 2015 Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| **Assets** | | | | |
| U.S. government and federal agency obligations | $ 5,086 | $ 9,621 | $ – | $ 14,707 |
| Non-U.S. government and agency obligations | 182 | 52 | – | 234 |
| Loans and securities backed by: | | | | |
| Commercial real estate | – | 1,370 | 140 | 1,510 |
| Residential real estate | – | 5,955 | 35 | 5,990 |
| Corporate loans and debt securities | – | 2,459 | 457 | 2,916 |
| Other | – | 217 | 196 | 413 |
| Subtotal | $ 5,268 | $ 19,674 | $ 828 | $ 25,770 |
| Investments in funds at NAV | | | | 17 |
| Total cash instrument assets | | | | $ 25,787 |
| **Liabilities** | | | | |
| U.S. government and federal agency obligations | $ (2,232) | $ – | $ – | $ (2,232) |
| Non-U.S. government and agency obligations | (1) | (5) | – | (6) |
| Loans and securities backed by: | | | | |
| Commercial real estate | – | (1) | – | (1) |
| Residential real estate | – | (2) | – | (2) |
| Corporate loans and debt securities | – | (195) | (97) | (292) |
| Total cash instrument liabilities | $ (2,233) | $ (203) | $ (97) | $ (2,533) |

In the tables above, other primarily consists of other debt obligations and equities.

### Significant Unobservable Inputs

The table below presents the amount of level 3 assets, and ranges and weighted averages of significant unobservable inputs used to value the Bank's level 3 cash instruments.

| $ in millions | Level 3 Assets and Range of Significant Unobservable Inputs (Weighted Average) as of December 2016 | 2015 |
|---|---|---|
| **Loans and securities backed by commercial real estate** | | |
| Level 3 assets | **$171** | $140 |
| Yield | **4.2% to 9.9% (6.2%)** | 3.5% to 9.6% (5.4%) |
| **Corporate loans and debt securities** | | |
| Level 3 assets | **$305** | $457 |
| Yield | **2.5% to 13.9% (5.2%)** | 1.9% to 36.6% (5.7%) |
| Recovery rate | **40.0% to 85.0% (72.4%)** | 40.0% to 75.0% (61.7%) |
| Duration (years) | **1.1 to 2.4 (2.0)** | 0.7 to 3.4 (2.3) |
| **Other** | | |
| Level 3 assets | **$306** | $196 |
| Discount rate/yield | **4.6% to 19.0% (14.2%)** | 5.7% to 16.3% (10.7%) |
| Recovery rate | **83.5% to 92.3% (87.1%)** | N.M. |
| Duration (years) | **0.9 to 1.5 (1.3)** | N.M. |

In the table above:

- Ranges represent the significant unobservable inputs that were used in the valuation of each type of cash instrument.
- Weighted averages are calculated by weighting each input by the relative fair value of the cash instruments.
- The ranges and weighted averages of these inputs are not representative of the appropriate inputs to use when calculating the fair value of any one cash instrument. For example, the highest recovery rate for corporate loans and debt securities is appropriate for valuing a specific loan but may not be appropriate for valuing any other corporate loan or debt security. Accordingly, the ranges of inputs do not represent uncertainty in, or possible ranges of, fair value measurements of the Bank's level 3 cash instruments.
- Significant unobservable input types which are only relevant to a single instrument are not meaningful and therefore have been excluded.
- Increases in yield or duration used in the valuation of the Bank's level 3 cash instruments would result in a lower fair value measurement, while an increase in recovery rate would result in a higher fair value measurement. Due to the distinctive nature of each of the Bank's level 3 cash instruments, the interrelationship of inputs is not necessarily uniform within each product type.
- Loans and securities backed by commercial real estate, corporate loans and debt securities and other debt obligations are valued using discounted cash flows, and equities are valued using market comparables and discounted cash flows.

### Transfers Between Levels of the Fair Value Hierarchy

Transfers between levels of the fair value hierarchy are reported at the beginning of the reporting period in which they occur. There were no transfers between level 1 and level 2 cash instrument assets or liabilities during 2016 or 2015. See "Level 3 Rollforward" below for information about transfers between level 2 and level 3.

### Level 3 Rollforward

The table below presents a summary of the changes in fair value for level 3 cash instrument assets and liabilities. In the table below:

- Changes in fair value are presented for all cash instrument assets and liabilities that are categorized as level 3 as of the end of the period.
- Net unrealized gains/(losses) relate to instruments that were still held at period-end.
- Purchases include originations and secondary purchases.
- If a cash instrument asset or liability was transferred to level 3 during a reporting period, its entire gain or loss for the period is included in level 3. For level 3 cash instrument assets, increases are shown as positive amounts, while decreases are shown as negative amounts. For level 3 cash instrument liabilities, increases are shown as negative amounts, while decreases are shown as positive amounts.
- Level 3 cash instruments are frequently economically hedged with level 1 and level 2 cash instruments and/or level 1, level 2 or level 3 derivatives. Accordingly, gains or losses that are reported in level 3 can be partially offset by gains or losses attributable to level 1 or level 2 cash instruments and/or level 1, level 2 or level 3 derivatives. As a result, gains or losses included in the level 3 rollforward below do not necessarily represent the overall impact on the Bank's results of operations, liquidity or capital resources.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Total cash instrument assets** | | |
| Beginning balance | **$ 828** | $ 3,091 |
| Net realized gains/(losses) | **32** | 53 |
| Net unrealized gains/(losses) | **–** | (5) |
| Purchases | **313** | 384 |
| Sales | **(49)** | (761) |
| Settlements | **(219)** | (1,280) |
| Transfers into level 3 | **88** | 67 |
| Transfers out of level 3 | **(211)** | (721) |
| **Ending balance** | **$ 782** | $ 828 |
| **Total cash instrument liabilities** | | |
| Beginning balance | **$ (97)** | $ (123) |
| Net unrealized gains/(losses) | **10** | (34) |
| Purchases | **40** | 36 |
| Sales | **(8)** | (4) |
| Settlements | **(5)** | (3) |
| Transfers into level 3 | **(5)** | (1) |
| Transfers out of level 3 | **41** | 32 |
| **Ending balance** | **$ (24)** | $ (97) |

The table below disaggregates, by product type, the information for cash instrument assets included in the summary table above.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Loans and securities backed by commercial real estate** | | |
| Beginning balance | **$ 140** | $ 584 |
| Net realized gains/(losses) | **5** | 5 |
| Net unrealized gains/(losses) | **(3)** | 2 |
| Purchases | **114** | 111 |
| Sales | **–** | (179) |
| Settlements | **(29)** | (365) |
| Transfers into level 3 | **10** | – |
| Transfers out of level 3 | **(66)** | (18) |
| **Ending balance** | **$ 171** | $ 140 |
| **Loans and securities backed by residential real estate** | | |
| Beginning balance | **$ 35** | $ 47 |
| Net realized gains/(losses) | **–** | 3 |
| Net unrealized gains/(losses) | **–** | 3 |
| Purchases | **1** | 1 |
| Sales | **–** | (4) |
| Settlements | **(36)** | (6) |
| Transfers out of level 3 | **–** | (9) |
| **Ending balance** | **$ –** | $ 35 |
| **Corporate loans and debt securities** | | |
| Beginning balance | **$ 457** | $ 2,165 |
| Net realized gains/(losses) | **15** | 43 |
| Net unrealized gains/(losses) | **7** | (5) |
| Purchases | **64** | 139 |
| Sales | **(49)** | (575) |
| Settlements | **(122)** | (794) |
| Transfers into level 3 | **78** | 55 |
| Transfers out of level 3 | **(145)** | (571) |
| **Ending balance** | **$ 305** | $ 457 |
| **Other** | | |
| Beginning balance | **$ 196** | $ 295 |
| Net realized gains/(losses) | **12** | 2 |
| Net unrealized gains/(losses) | **(4)** | (5) |
| Purchases | **134** | 133 |
| Sales | **–** | (3) |
| Settlements | **(32)** | (115) |
| Transfers into level 3 | **–** | 12 |
| Transfers out of level 3 | **–** | (123) |
| **Ending balance** | **$ 306** | $ 196 |

In the table above, other primarily consists of other debt obligations and equities.

### Level 3 Rollforward Commentary

**Year Ended December 2016.** The net realized gains on level 3 cash instrument assets of $32 million for 2016 was reported in "Gains and losses from financial instruments, net."

Transfers into level 3 during 2016 reflected transfers of certain corporate loans and debt securities and certain loans and securities backed by commercial real estate from level 2, principally due to reduced price transparency as a result of a lack of market evidence, including fewer market transactions in these instruments.

Transfers out of level 3 during 2016 reflected transfers of certain corporate loans and debt securities to level 2, principally due to increased price transparency as a result of market evidence, including market transactions in these instruments, and transfers of certain loans and securities backed by commercial real estate to level 2, principally due to certain unobservable yield and duration inputs not being significant to the valuation of these instruments.

**Year Ended December 2015.** The net realized and unrealized gains on level 3 cash instrument assets of $48 million (reflecting $53 million of net realized gains and $5 million of net unrealized losses) for 2015 were reported in "Gains and losses from financial instruments, net."

The net unrealized loss on level 3 cash instrument liabilities of $34 million for 2015 primarily reflected losses on unfunded corporate loan commitments, primarily due to the impact of widening credit spreads.

Transfers into level 3 during 2015 primarily reflected transfers of certain cash instrument assets, primarily corporate loans and debt securities and certain other cash instruments from level 2, principally due to reduced price transparency as a result of a lack of market evidence, including fewer market transactions in these instruments.

Transfers out of level 3 during 2015 primarily reflected transfers of certain cash instrument assets, primarily corporate loans and debt securities to level 2 principally due to certain unobservable yield and duration inputs not being significant to the valuation of these instruments.

## Note 7.
## Derivatives and Hedging Activities

### Derivative Activities

Derivatives are instruments that derive their value from underlying asset prices, indices, reference rates and other inputs, or a combination of these factors. Derivatives may be traded on an exchange (exchange-traded) or they may be privately negotiated contracts, which are usually referred to as over-the-counter (OTC) derivatives. Certain of the Bank's OTC derivatives are cleared and settled through central clearing counterparties (OTC-cleared), while others are bilateral contracts between two counterparties (bilateral OTC).

**Market-Making.** As a market maker, the Bank enters into derivative transactions to provide liquidity to clients and to facilitate the transfer and hedging of their risks. In this role, the Bank typically acts as principal and is required to commit capital to provide execution, and maintains inventory in response to, or in anticipation of, client demand.

**Risk Management.** The Bank also enters into derivatives to actively manage risk exposures that arise from its market-making and lending activities in derivative and cash instruments. The Bank's holdings and exposures are hedged, in many cases, on either a portfolio or risk-specific basis, as opposed to an instrument-by-instrument basis. In addition, the Bank may enter into derivatives designated as hedges under U.S. GAAP. These derivatives are used to manage interest rate exposure in certain deposits.

The Bank enters into various types of derivatives, including:

- **Futures and Forwards.** Contracts that commit counterparties to purchase or sell financial instruments or currencies in the future.

- **Swaps.** Contracts that require counterparties to exchange cash flows such as currency or interest payment streams. The amounts exchanged are based on the specific terms of the contract with reference to specified rates, financial instruments, currencies or indices.

- **Options.** Contracts in which the option purchaser has the right, but not the obligation, to purchase from or sell to the option writer financial instruments or currencies within a defined time period for a specified price.

Derivatives are reported on a net-by-counterparty basis (i.e., the net payable or receivable for derivative assets and liabilities for a given counterparty) when a legal right of setoff exists under an enforceable netting agreement (counterparty netting). Derivatives are accounted for at fair value, net of cash collateral received or posted under enforceable credit support agreements (cash collateral netting). Derivative assets and liabilities are included in "Financial instruments owned, at fair value" and "Financial instruments sold, but not yet purchased, at fair value," respectively. Realized and unrealized gains and losses on derivatives not designated as hedges under ASC 815 are included in "Gains and losses from financial instruments, net" in Note 4.

The tables below present the gross fair value and the notional amount of derivative contracts by major product type, the amounts of counterparty and cash collateral netting in the consolidated statements of financial condition, as well as cash and securities collateral posted and received under enforceable credit support agreements that do not meet the criteria for netting under U.S. GAAP.

| | **As of December 2016** | | As of December 2015 | |
|---|---|---|---|---|
| *$ in millions* | **Derivative Assets** | **Derivative Liabilities** | Derivative Assets | Derivative Liabilities |
| **Not accounted for as hedges** | | | | |
| Exchange-traded | **$ 438** | **$ 360** | $ 302 | $ 262 |
| OTC-cleared | **131,571** | **109,827** | 150,879 | 129,689 |
| Bilateral OTC | **503,345** | **495,212** | 514,507 | 506,378 |
| **Total interest rates** | **635,354** | **605,399** | 665,688 | 636,329 |
| **Currencies – Bilateral OTC** | **66,753** | **63,565** | 57,839 | 61,645 |
| **Credit – Bilateral OTC** | **3,187** | **2,806** | 3,422 | 2,661 |
| **Equities – Bilateral OTC** | **1,440** | **1,035** | 960 | 709 |
| **Commodities – Bilateral OTC** | **97** | **94** | 153 | 150 |
| **Subtotal** | **706,831** | **672,899** | 728,062 | 701,494 |
| **Accounted for as hedges** | | | | |
| OTC-cleared | **137** | **67** | 205 | 21 |
| Bilateral OTC | **114** | **1** | 173 | 2 |
| **Total interest rates** | **251** | **68** | 378 | 23 |
| **Total gross fair value** | **$ 707,082** | **$ 672,967** | $ 728,440 | $ 701,517 |
| **Offset in the consolidated statements of financial condition** | | | | |
| OTC-cleared | **$ (107,151)** | **$ (107,151)** | $ (126,875) | $ (126,875) |
| Bilateral OTC | **(537,433)** | **(537,433)** | (539,394) | (539,394) |
| **Total counterparty netting** | **(644,584)** | **(644,584)** | (666,269) | (666,269) |
| OTC-cleared | **(24,541)** | **(2,743)** | (24,108) | (2,741) |
| Bilateral OTC | **(26,959)** | **(19,602)** | (27,249) | (26,530) |
| **Total cash collateral netting** | **(51,500)** | **(22,345)** | (51,357) | (29,271) |
| **Total amount offset** | **$ (696,084)** | **$ (666,929)** | $ (717,626) | $ (695,540) |
| **Included in the consolidated statements of financial condition** | | | | |
| Exchange-traded | **$ 438** | **$ 360** | $ 302 | $ 262 |
| OTC-cleared | **16** | **–** | 101 | 94 |
| Bilateral OTC | **10,544** | **5,678** | 10,411 | 5,621 |
| **Total** | **$ 10,998** | **$ 6,038** | $ 10,814 | $ 5,977 |
| **Not offset in the consolidated statements of financial condition** | | | | |
| Cash collateral | **$ (122)** | **$ (441)** | $ (362) | $ (781) |
| Securities collateral | **(1,926)** | **(482)** | (1,726) | (614) |
| **Total** | **$ 8,950** | **$ 5,115** | $ 8,726 | $ 4,582 |

| | Notional Amounts as of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Not accounted for as hedges** | | |
| Exchange-traded | **$ 3,980,613** | $ 3,918,183 |
| OTC-cleared | **9,442,518** | 13,074,682 |
| Bilateral OTC | **19,168,270** | 21,927,828 |
| **Total interest rates** | **32,591,401** | 38,920,693 |
| **Currencies – Bilateral OTC** | **2,084,118** | 2,058,533 |
| **Credit – Bilateral OTC** | **164,567** | 164,005 |
| **Equities – Bilateral OTC** | **43,329** | 75,110 |
| **Commodities – Bilateral OTC** | **3,572** | 7,128 |
| **Subtotal** | **34,886,987** | 41,225,469 |
| **Accounted for as hedges** | | |
| OTC-cleared | **22,180** | 22,585 |
| Bilateral OTC | **3,008** | 3,981 |
| **Total interest rates** | **25,188** | 26,566 |
| **Total notional amount** | **$ 34,912,175** | $ 41,252,035 |

In the tables above:

- Gross fair values exclude the effects of both counterparty netting and collateral, and therefore are not representative of the Bank's exposure.
- Where the Bank has received or posted collateral under credit support agreements, but has not yet determined such agreements are enforceable, the related collateral has not been netted.
- Notional amounts, which represent the sum of gross long and short derivative contracts, provide an indication of the volume of the Bank's derivative activity and do not represent anticipated losses.
- Total gross fair value of derivatives includes derivative assets and derivative liabilities of $5.47 billion and $1.87 billion, respectively, as of December 2016, and derivative assets and derivative liabilities of $4.80 billion and $2.38 billion, respectively, as of December 2015, which are not subject to an enforceable netting agreement or are subject to a netting agreement that the Bank has not yet determined to be enforceable.

A clearing organization adopted a rule change in the first quarter of 2017 that requires transactions to be considered settled each day. Certain other clearing organizations allow for similar treatment. To the extent transactions with these clearing organizations are considered settled, the impact would be a reduction in gross interest rate assets and liabilities, and a corresponding decrease in counterparty and cash collateral netting, with no impact to the consolidated statements of financial condition.

### Valuation Techniques for Derivatives

The Bank's level 2 and level 3 derivatives are valued using derivative pricing models (e.g., discounted cash flow models, correlation models, and models that incorporate option pricing methodologies, such as Monte Carlo simulations). Price transparency of derivatives can generally be characterized by product type, as described below.

- **Interest Rate.** In general, the key inputs used to value interest rate derivatives are transparent, even for most long-dated contracts. Interest rate swaps and options denominated in the currencies of leading industrialized nations are characterized by high trading volumes and tight bid/offer spreads. Interest rate derivatives that reference indices, such as an inflation index, or the shape of the yield curve (e.g., 10-year swap rate vs. 2-year swap rate) are more complex, but the key inputs are generally observable.
- **Currency.** Prices for currency derivatives based on the exchange rates of leading industrialized nations, including those with longer tenors, are generally transparent. The primary difference between the price transparency of developed and emerging market currency derivatives is that emerging markets tend to be observable for contracts with shorter tenors.
- **Credit.** Price transparency for credit default swaps, including both single names and baskets of credits, varies by market and underlying reference entity or obligation. Credit default swaps that reference indices, large corporates and major sovereigns generally exhibit the most price transparency. For credit default swaps with other underliers, price transparency varies based on credit rating, the cost of borrowing the underlying reference obligations, and the availability of the underlying reference obligations for delivery upon the default of the issuer. Credit default swaps that reference loans, asset-backed securities and emerging market debt instruments tend to have less price transparency than those that reference corporate bonds. In addition, more complex credit derivatives, such as those sensitive to the correlation between two or more underlying reference obligations, generally have less price transparency.
- **Equity.** Price transparency for equity derivatives varies by market and underlier. Options on indices and the common stock of corporates included in major equity indices exhibit the most price transparency. Equity derivatives generally have observable market prices, except for contracts with long tenors or reference prices that differ significantly from current market prices. More complex equity derivatives, such as those sensitive to the correlation between two or more individual stocks, generally have less price transparency.

Liquidity is essential to observability of all product types. If transaction volumes decline, previously transparent prices and other inputs may become unobservable. Conversely, even highly structured products may at times have trading volumes large enough to provide observability of prices and other inputs. See Note 5 for an overview of the Bank's fair value measurement policies.

### Level 1 Derivatives

Level 1 derivatives include short-term contracts for future delivery of securities when the underlying security is a level 1 instrument, and exchange-traded derivatives if they are actively traded and are valued at their quoted market price. As of both December 2016 and December 2015, the Bank had no level 1 derivatives.

### Level 2 Derivatives

Level 2 derivatives include OTC derivatives for which all significant valuation inputs are corroborated by market evidence and exchange-traded derivatives that are not actively traded and/or that are valued using models that calibrate to market-clearing levels of OTC derivatives. In evaluating the significance of a valuation input, the Bank considers, among other factors, a portfolio's net risk exposure to that input.

The selection of a particular model to value a derivative depends on the contractual terms of and specific risks inherent in the instrument, as well as the availability of pricing information in the market. For derivatives that trade in liquid markets, model selection does not involve significant management judgment because outputs of models can be calibrated to market-clearing levels.

Valuation models require a variety of inputs, such as contractual terms, market prices, yield curves, discount rates (including those derived from interest rates on collateral received and posted as specified in credit support agreements for collateralized derivatives), credit curves, measures of volatility, prepayment rates, loss severity rates and correlations of such inputs. Significant inputs to the valuations of level 2 derivatives can be verified to market transactions, broker or dealer quotations or other alternative pricing sources with reasonable levels of price transparency. Consideration is given to the nature of the quotations (e.g., indicative or firm) and the relationship of recent market activity to the prices provided from alternative pricing sources.

### Level 3 Derivatives

Level 3 derivatives are valued using models which utilize observable level 1 and/or level 2 inputs, as well as unobservable level 3 inputs. The significant unobservable inputs used to value the Bank's level 3 derivatives are described below.

- For the majority of the Bank's interest rate and currency derivatives classified within level 3, significant unobservable inputs include correlations of certain currencies and interest rates (e.g., the correlation between Euro inflation and Euro interest rates) and specific interest rate volatilities.
- For level 3 credit derivatives, significant unobservable inputs include illiquid credit spreads, which are unique to specific reference obligations and reference entities.
- For level 3 equity derivatives, significant unobservable inputs generally include correlation inputs, such as the correlation of the price performance of two or more individual stocks or the correlation of the price performance for a basket of stocks to another asset class.

Subsequent to the initial valuation of a level 3 derivative, the Bank updates the level 1 and level 2 inputs to reflect observable market changes and any resulting gains and losses are recorded in level 3. Level 3 inputs are changed when corroborated by evidence such as similar market transactions, third-party pricing services and/or broker or dealer quotations or other empirical market data. In circumstances where the Bank cannot verify the model value by reference to market transactions, it is possible that a different valuation model could produce a materially different estimate of fair value. See below for further information about significant unobservable inputs used in the valuation of level 3 derivatives.

### Valuation Adjustments

Valuation adjustments are integral to determining the fair value of derivative portfolios and are used to adjust the mid-market valuations produced by derivative pricing models to the appropriate exit price valuation. These adjustments incorporate bid/offer spreads, the cost of liquidity, credit valuation adjustments and funding valuation adjustments, which account for the credit and funding risk inherent in the uncollateralized portion of derivative portfolios. The Bank also makes funding valuation adjustments to collateralized derivatives where the terms of the agreement do not permit the Bank to deliver or repledge collateral received. Market-based inputs are generally used when calibrating valuation adjustments to market-clearing levels.

In addition, for derivatives that include significant unobservable inputs, the Bank makes model or exit price adjustments to account for the valuation uncertainty present in the transaction.

### Fair Value of Derivatives by Level

The tables below present the fair value of derivatives on a gross basis by level and major product type as well as the impact of netting, included in the consolidated statements of financial condition.

| | As of December 2016 | | | |
|---|---|---|---|---|
| *$ in millions* | **Level 1** | **Level 2** | **Level 3** | **Total** |
| **Assets** | | | | |
| Interest rates | **$ –** | **$ 634,953** | **$ 652** | **$ 635,605** |
| Currencies | **–** | **66,161** | **592** | **66,753** |
| Credit | **–** | **1,897** | **1,290** | **3,187** |
| Equities | **–** | **1,016** | **424** | **1,440** |
| Commodities | **–** | **82** | **15** | **97** |
| Gross fair value | **–** | **704,109** | **2,973** | **707,082** |
| Counterparty netting within levels | **–** | **(642,876)** | **(852)** | **(643,728)** |
| Subtotal | **$ –** | **$ 61,233** | **$ 2,121** | **$ 63,354** |
| Cross-level counterparty netting | | | | **(856)** |
| Cash collateral netting | | | | **(51,500)** |
| **Net fair value** | | | | **$ 10,998** |
| **Liabilities** | | | | |
| Interest rates | **$ –** | **$ (604,362)** | **$ (1,105)** | **$ (605,467)** |
| Currencies | **–** | **(63,439)** | **(126)** | **(63,565)** |
| Credit | **–** | **(2,094)** | **(712)** | **(2,806)** |
| Equities | **–** | **(1,029)** | **(6)** | **(1,035)** |
| Commodities | **–** | **(81)** | **(13)** | **(94)** |
| Gross fair value | **–** | **(671,005)** | **(1,962)** | **(672,967)** |
| Counterparty netting within levels | **–** | **642,876** | **852** | **643,728** |
| Subtotal | **$ –** | **$ (28,129)** | **$ (1,110)** | **$ (29,239)** |
| Cross-level counterparty netting | | | | **856** |
| Cash collateral netting | | | | **22,345** |
| **Net fair value** | | | | **$ (6,038)** |

| | As of December 2015 | | | |
|---|---|---|---|---|
| *$ in millions* | Level 1 | Level 2 | Level 3 | Total |
| **Assets** | | | | |
| Interest rates | $ – | $ 665,659 | $ 407 | $ 666,066 |
| Currencies | – | 57,452 | 387 | 57,839 |
| Credit | – | 1,905 | 1,517 | 3,422 |
| Equities | – | 709 | 251 | 960 |
| Commodities | – | 136 | 17 | 153 |
| Gross fair value | – | 725,861 | 2,579 | 728,440 |
| Counterparty netting within levels | – | (664,294) | (977) | (665,271) |
| Subtotal | $ – | $ 61,567 | $ 1,602 | $ 63,169 |
| Cross-level counterparty netting | | | | (998) |
| Cash collateral netting | | | | (51,357) |
| Net fair value | | | | $ 10,814 |
| **Liabilities** | | | | |
| Interest rates | $ – | $ (635,313) | $ (1,039) | $ (636,352) |
| Currencies | – | (61,493) | (152) | (61,645) |
| Credit | – | (1,904) | (757) | (2,661) |
| Equities | – | (706) | (3) | (709) |
| Commodities | – | (135) | (15) | (150) |
| Gross fair value | – | (699,551) | (1,966) | (701,517) |
| Counterparty netting within levels | – | 664,294 | 977 | 665,271 |
| Subtotal | $ – | $ (35,257) | $ (989) | $ (36,246) |
| Cross-level counterparty netting | | | | 998 |
| Cash collateral netting | | | | 29,271 |
| Net fair value | | | | $ (5,977) |

In the tables above:

- The gross fair values exclude the effects of both counterparty netting and collateral netting, and therefore are not representative of the Bank's exposure.
- Counterparty netting is reflected in each level to the extent that receivable and payable balances are netted within the same level and is included in counterparty netting within levels. Where the counterparty netting is across levels, the netting is reflected in cross-level counterparty netting.
- Derivative assets are shown as positive amounts and derivative liabilities are shown as negative amounts.

### Significant Unobservable Inputs

The table below presents the amount of level 3 assets (liabilities), and ranges, averages and medians of significant unobservable inputs used to value substantially all of the Bank's level 3 derivatives.

| | Level 3 Assets (Liabilities) and Range of Significant Unobservable Inputs (Average/Median) as of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Interest rates, net** | **$(453)** | $(632) |
| Correlation | **(10)% to 86% (56%/60%)** | (25)% to 92% (53%/55%) |
| Volatility (bps) | **31 to 151 (84/57)** | 31 to 152 (84/57) |
| **Currencies, net** | **$466** | $235 |
| Correlation | **25% to 70% (50%/55%)** | 25% to 70% (50%/51%) |
| **Credit, net** | **$578** | $760 |
| Credit spreads (bps) | **16 to 800 (210/146)** | 39 to 1,019 (223/142) |
| **Equities, net** | **$418** | $248 |
| Correlation | **19% to 88% (40%/40%)** | 27% to 88% (50%/50%) |

In the table above:

- Derivative assets are shown as positive amounts and derivative liabilities are shown as negative amounts.
- Ranges represent the significant unobservable inputs that were used in the valuation of each type of derivative.
- Averages represent the arithmetic average of the inputs and are not weighted by the relative fair value or notional of the respective financial instruments. An average greater than the median indicates that the majority of inputs are below the average. For example, the difference between the average and the median for credit spread inputs indicates that the majority of the inputs fall in the lower end of the range.
- The ranges, averages and medians of these inputs are not representative of the appropriate inputs to use when calculating the fair value of any one derivative. For example, the highest correlation for interest rate derivatives is appropriate for valuing a specific interest rate derivative but may not be appropriate for valuing any other interest rate derivative. Accordingly, the ranges of inputs do not represent uncertainty in, or possible ranges of, fair value measurements of the Bank's level 3 derivatives.
- Interest rates, currencies and equities derivatives are valued using option pricing models, and credit derivatives are valued using option pricing and discounted cash flow models.
- The fair value of any one instrument may be determined using multiple valuation techniques. For example, option pricing models and discounted cash flows models are typically used together to determine fair value. Therefore, the level 3 balance encompasses both of these techniques.
- Correlation within currencies and equities includes cross-product correlation.

### Range of Significant Unobservable Inputs

The following is information about the ranges of significant unobservable inputs used to value the Bank's level 3 derivative instruments:

- **Correlation.** Ranges for correlation cover a variety of underliers both within one market (e.g., foreign exchange rates) and across markets (e.g., correlation of an interest rate and a foreign exchange rate), as well as across regions. Generally, cross-product correlation inputs are used to value more complex instruments and are lower than correlation inputs on assets within the same derivative product type.
- **Volatility.** Ranges for volatility cover numerous underliers across a variety of markets, maturities and strike prices.
- **Credit spreads.** The ranges for credit spreads cover a variety of underliers (index and single names), regions, sectors, maturities and credit qualities (high-yield and investment-grade). The broad range of this population gives rise to the width of the ranges of significant unobservable inputs.

### Sensitivity of Fair Value Measurement to Changes in Significant Unobservable Inputs

The following is a description of the directional sensitivity of the Bank's level 3 fair value measurements to changes in significant unobservable inputs, in isolation:

- **Correlation.** In general, for contracts where the holder benefits from the convergence of the underlying asset or index prices (e.g., interest rates, foreign exchange rates and equity prices), an increase in correlation results in a higher fair value measurement.
- **Volatility.** In general, for purchased options an increase in volatility results in a higher fair value measurement.
- **Credit spreads.** In general, the fair value of purchased credit protection increases as credit spreads increase. Credit spreads are strongly related to distinctive risk factors of the underlying reference obligations, which include reference entity-specific factors such as leverage, volatility and industry, market-based risk factors, such as borrowing costs or liquidity of the underlying reference obligation, and macroeconomic conditions.

Due to the distinctive nature of each of the Bank's level 3 derivatives, the interrelationship of inputs is not necessarily uniform within each product type.

### Level 3 Rollforward

The table below presents a summary of the changes in fair value for all level 3 derivatives. In the table below:

- Changes in fair value are presented for all derivative assets and liabilities that are categorized as level 3 as of the end of the period.
- Net unrealized gains/(losses) relate to instruments that were still held at period-end.
- If a derivative was transferred to level 3 during a reporting period, its entire gain or loss for the period is included in level 3. Transfers between levels are reported at the beginning of the reporting period in which they occur.
- Positive amounts for transfers into level 3 and negative amounts for transfers out of level 3 represent net transfers of derivative assets. Negative amounts for transfers into level 3 and positive amounts for transfers out of level 3 represent net transfers of derivative liabilities.
- A derivative with level 1 and/or level 2 inputs is classified in level 3 in its entirety if it has at least one significant level 3 input.
- If there is one significant level 3 input, the entire gain or loss from adjusting only observable inputs (i.e., level 1 and level 2 inputs) is classified as level 3.
- Gains or losses that have been reported in level 3 resulting from changes in level 1 or level 2 inputs are frequently offset by gains or losses attributable to level 1 or level 2 derivatives and/or level 1, level 2 and level 3 cash instruments. As a result, gains/(losses) included in the level 3 rollforward below do not necessarily represent the overall impact on the Bank's results of operations, liquidity or capital resources.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Total level 3 derivatives** | | |
| Beginning balance | **$ 613** | $ 204 |
| Net realized gains/(losses) | **(139)** | (158) |
| Net unrealized gains/(losses) | **(145)** | 392 |
| Purchases | **137** | 297 |
| Sales | **(6)** | (62) |
| Settlements | **152** | 136 |
| Transfers into level 3 | **158** | (221) |
| Transfers out of level 3 | **241** | 25 |
| **Ending balance** | **$ 1,011** | $ 613 |

The table below disaggregates, by product type, the information for level 3 derivatives included in the summary table above.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Interest rates, net** | | |
| Beginning balance | **$ (632)** | $ (224) |
| Net realized gains/(losses) | **(53)** | (54) |
| Net unrealized gains/(losses) | **(165)** | (47) |
| Purchases | **9** | 7 |
| Sales | **(4)** | (4) |
| Settlements | **9** | 49 |
| Transfers into level 3 | **136** | (369) |
| Transfers out of level 3 | **247** | 10 |
| **Ending balance** | **$ (453)** | $ (632) |
| **Currencies, net** | | |
| Beginning balance | **$ 235** | $ (41) |
| Net realized gains/(losses) | **(75)** | (70) |
| Net unrealized gains/(losses) | **204** | 251 |
| Purchases | **55** | 59 |
| Sales | **(2)** | (10) |
| Settlements | **45** | 43 |
| Transfers into level 3 | **–** | 8 |
| Transfers out of level 3 | **4** | (5) |
| **Ending balance** | **$ 466** | $ 235 |
| **Credit, net** | | |
| Beginning balance | **$ 760** | $ 360 |
| Net realized gains/(losses) | **(21)** | (42) |
| Net unrealized gains/(losses) | **(285)** | 272 |
| Purchases | **1** | 27 |
| Sales | **–** | (47) |
| Settlements | **110** | 57 |
| Transfers into level 3 | **22** | 109 |
| Transfers out of level 3 | **(9)** | 24 |
| **Ending balance** | **$ 578** | $ 760 |
| **Equities, net** | | |
| Beginning balance | **$ 248** | $ 107 |
| Net realized gains/(losses) | **10** | 8 |
| Net unrealized gains/(losses) | **101** | (84) |
| Purchases | **72** | 204 |
| Sales | **–** | (1) |
| Settlements | **(12)** | (13) |
| Transfers into level 3 | **–** | 31 |
| Transfers out of level 3 | **(1)** | (4) |
| **Ending balance** | **$ 418** | $ 248 |
| **Commodities, net** | | |
| Beginning balance | **$ 2** | $ 2 |
| Net realized gains/(losses) | **–** | – |
| Net unrealized gains/(losses) | **–** | – |
| Transfers into level 3 | **–** | – |
| Transfers out of level 3 | **–** | – |
| **Ending balance** | **$ 2** | $ 2 |

### Level 3 Rollforward Commentary

**Year Ended December 2016.** The net realized and unrealized losses on level 3 derivatives of $284 million (reflecting $139 million of net realized losses and $145 million of net unrealized losses) for 2016 were reported in "Gains and losses from financial instruments, net."

The net unrealized loss on level 3 derivatives of $145 million for 2016 was primarily attributable to losses on certain credit derivatives, reflecting the impact of tighter credit spreads, and losses on certain interest rate derivatives, reflecting the impact of changes in interest rates, partially offset by gains on certain currency derivatives, reflecting the impact of changes in foreign exchange rates, and gains on certain equity derivatives, reflecting the impact of changes in equity prices.

Transfers into level 3 derivatives during 2016 primarily reflected transfers of certain interest rate derivative assets from level 2, principally due to reduced transparency of certain unobservable inputs used to value these derivatives.

Transfers out of level 3 derivatives during 2016 primarily reflected transfers of certain interest rate derivative liabilities to level 2, primarily due to increased transparency of interest rates used to value these derivatives.

**Year Ended December 2015.** The net realized and unrealized gains on level 3 derivative assets and liabilities of $234 million (reflecting $158 million of net realized losses and $392 million of net unrealized gains) for 2015 were reported in "Gains and losses from financial instruments, net."

The net unrealized gain on level 3 derivatives of $392 million for 2015 was primarily attributable to gains on certain currency derivatives, reflecting the impact of changes in foreign exchange rates and gains on certain credit derivatives, reflecting the impact of wider credit spreads.

Transfers into level 3 derivatives during 2015 primarily reflected transfers of certain interest rate derivative liabilities from level 2, primarily due to certain unobservable inputs becoming significant to valuation of these derivatives, and transfer of certain credit derivative assets from level 2, primarily due to unobservable credit spread inputs becoming significant to the valuation of these derivatives.

### Credit Derivatives

The Bank enters into a broad array of credit derivatives in locations around the world to facilitate client transactions and to manage the credit risk associated with its activities. Credit derivatives are actively managed based on the Bank's net risk position.

Credit derivatives are individually negotiated contracts and can have various settlement and payment conventions. Credit events include failure to pay, bankruptcy, acceleration of indebtedness, restructuring, repudiation and dissolution of the reference entity.

The Bank enters into the following types of credit derivatives:

- **Credit Default Swaps.** Single-name credit default swaps protect the buyer against the loss of principal on one or more bonds, loans or mortgages (reference obligations) in the event the issuer (reference entity) of the reference obligations suffers a credit event. The buyer of protection pays an initial or periodic premium to the seller and receives protection for the period of the contract. If there is no credit event, as defined in the contract, the seller of protection makes no payments to the buyer of protection. However, if a credit event occurs, the seller of protection is required to make a payment to the buyer of protection, which is calculated in accordance with the terms of the contract.
- **Credit Options.** In a credit option, the option writer assumes the obligation to purchase or sell a reference obligation at a specified price or credit spread. The option purchaser buys the right, but does not assume the obligation, to sell the reference obligation to, or purchase it from, the option writer. The payments on credit options depend either on a particular credit spread or the price of the reference obligation.
- **Credit Indices, Baskets and Tranches.** Credit derivatives may reference a basket of single-name credit default swaps or a broad-based index. If a credit event occurs in one of the underlying reference obligations, the protection seller pays the protection buyer. The payment is typically a pro-rata portion of the transaction's total notional amount based on the underlying defaulted reference obligation. In certain transactions, the credit risk of a basket or index is separated into various portions (tranches), each having different levels of subordination. The most junior tranches cover initial defaults and once losses exceed the notional amount of these junior tranches, any excess loss is covered by the next most senior tranche in the capital structure.
- **Total Return Swaps.** A total return swap transfers the risks relating to economic performance of a reference obligation from the protection buyer to the protection seller. Typically, the protection buyer receives from the protection seller a floating rate of interest and protection against any reduction in fair value of the reference obligation, and in return the protection seller receives the cash flows associated with the reference obligation, plus any increase in the fair value of the reference obligation.

The Bank economically hedges its exposure to written credit derivatives primarily by entering into offsetting purchased credit derivatives with identical underliers. Substantially all of the Bank's purchased credit derivative transactions are with financial institutions and are subject to stringent collateral thresholds. In addition, upon the occurrence of a specified trigger event, the Bank may take possession of the reference obligations underlying a particular written credit derivative, and consequently may, upon liquidation of the reference obligations, recover amounts on the underlying reference obligations in the event of default.

As of December 2016, written and purchased credit derivatives had total gross notional amounts of $75.37 billion and $89.20 billion, respectively, for total net notional purchased protection of $13.83 billion. As of December 2015, written and purchased credit derivatives had total gross notional amounts of $70.52 billion and $93.49 billion, respectively, for total net notional purchased protection of $22.97 billion. Substantially all of the Bank's written and purchased credit derivatives are credit default swaps.

The table below presents certain information about credit derivatives.

| | Credit Spread on Underlier (basis points) | | | | |
|---|---|---|---|---|---|
| $ in millions | 0 -250 | 251 - 500 | 501 - 1,000 | Greater than 1,000 | Total |
| **As of December 2016** | | | | | |
| **Maximum Payout/Notional Amount of Written Credit Derivatives by Tenor** | | | | | |
| Less than 1 year | **$ 24,366** | **$ 260** | **$ 61** | **$ 444** | **$ 25,131** |
| 1 – 5 years | **33,102** | **2,325** | **1,008** | **623** | **37,058** |
| Greater than 5 | **12,732** | **422** | **8** | **15** | **13,177** |
| **Total** | **$ 70,200** | **$ 3,007** | **$ 1,077** | **$ 1,082** | **$ 75,366** |
| **Maximum Payout/Notional Amount of Purchased Credit Derivatives** | | | | | |
| Offsetting | **$ 52,615** | **$ 2,712** | **$ 1,000** | **$ 1,003** | **$ 57,330** |
| Other | **30,928** | **640** | **170** | **133** | **31,871** |
| **Fair Value of Written Credit Derivatives** | | | | | |
| Asset | **$ 597** | **$ 814** | **$ 115** | **$ 62** | **$ 1,588** |
| Liability | **479** | **78** | **21** | **188** | **766** |
| **Net** | **$ 118** | **$ 736** | **$ 94** | **$ (126)** | **$ 822** |
| As of December 2015 | | | | | |
| **Maximum Payout/Notional Amount of Written Credit Derivatives by Tenor** | | | | | |
| Less than 1 year | $ 23,503 | $ 298 | $ 407 | $ 355 | $ 24,563 |
| 1 – 5 years | 33,089 | 1,970 | 1,068 | 1,554 | 37,681 |
| Greater than 5 | 7,597 | 564 | 67 | 47 | 8,275 |
| Total | $ 64,189 | $ 2,832 | $ 1,542 | $ 1,956 | $ 70,519 |
| **Maximum Payout/Notional Amount of Purchased Credit Derivatives** | | | | | |
| Offsetting | $ 53,060 | $ 2,615 | $ 1,464 | $ 1,926 | $ 59,065 |
| Other | 31,335 | 2,175 | 356 | 555 | 34,421 |
| **Fair Value of Written Credit Derivatives** | | | | | |
| Asset | $ 1,023 | $ 49 | $ 26 | $ 37 | $ 1,135 |
| Liability | 691 | 78 | 81 | 307 | 1,157 |
| Net | $ 332 | $ (29) | $ (55) | $ (270) | $ (22) |

In the table above:

- Fair values exclude the effects of both netting of receivable balances with payable balances under enforceable netting agreements, and netting of cash received or posted under enforceable credit support agreements, and therefore are not representative of the Bank's credit exposure.
- Tenor is based on expected duration for mortgage-related credit derivatives and on remaining contractual maturity for other credit derivatives.
- The credit spread on the underlier, together with the tenor of the contract, are indicators of payment/performance risk. The Bank is less likely to pay or otherwise be required to perform where the credit spread and the tenor are lower.
- Offsetting purchased credit derivatives represent the notional amount of purchased credit derivatives that economically hedge written credit derivatives with identical underliers and are included in offsetting.
- Other purchased credit derivatives represent the notional amount of all other purchased credit derivatives not included in offsetting.

### Impact of Credit Spreads on Derivatives

On an ongoing basis, the Bank realizes gains or losses relating to changes in credit risk through the unwind of derivative contracts and changes in credit mitigants.

The net gain, including hedges, attributable to the impact of changes in credit exposure and credit spreads (of the Bank's counterparties as well as of the Bank or its affiliates) on derivatives was $87 million and $75 million for 2016 and 2015, respectively.

### Derivatives with Credit-Related Contingent Features

Certain of the Bank's derivatives have been transacted under bilateral agreements with counterparties who may require the Bank to post collateral or terminate the transactions based on changes in the credit ratings of the Bank and/or Group Inc. Typically, such requirements are based on the credit ratings of Group Inc. The Bank assesses the impact of these bilateral agreements by determining the collateral or termination payments that would occur assuming a downgrade by all rating agencies. A downgrade by any one rating agency, depending on the agency's relative ratings of the Bank and/or Group Inc. at the time of the downgrade, may have an impact which is comparable to the impact of a downgrade by all rating agencies.

The table below presents the aggregate fair value of net derivative liabilities under such agreements (excluding application of collateral posted to reduce these liabilities), the related aggregate fair value of the assets posted as collateral and the additional collateral or termination payments that could have been called at the reporting date by counterparties in the event of a one-notch and two-notch downgrade in the credit ratings of the Bank and/or Group Inc.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Net derivative liabilities under bilateral agreements | **$ 5,318** | $ 5,448 |
| Collateral posted | **4,454** | 4,631 |
| Additional collateral or termination payments: | | |
| One-notch downgrade | **165** | 485 |
| Two-notch downgrade | **298** | 835 |

### Hedge Accounting

The Bank applies hedge accounting for certain interest rate swaps used to manage the interest rate exposure of certain fixed-rate certificates of deposit.

To qualify for hedge accounting, the hedging instrument must be highly effective at reducing the risk from the exposure being hedged. Additionally, the Bank must formally document the hedging relationship at inception and test the hedging relationship at least on a quarterly basis to ensure the hedging instrument continues to be highly effective over the life of the hedging relationship.

### Fair Value Hedges

The Bank designates certain interest rate swaps as fair value hedges. These interest rate swaps hedge changes in fair value attributable to the designated benchmark interest rate (e.g., London Interbank Offered Rate (LIBOR)), effectively converting a substantial portion of fixed-rate obligations into floating-rate obligations.

The Bank applies a statistical method that utilizes regression analysis when assessing the effectiveness of its fair value hedging relationships in achieving offsetting changes in the fair values of the hedging instrument and the risk being hedged (i.e., interest rate risk). An interest rate swap is considered highly effective in offsetting changes in fair value attributable to changes in the hedged risk when the regression analysis results in a coefficient of determination of 80% or greater and a slope between 80% and 125%.

For qualifying fair value hedges, gains or losses on derivatives are included in "Interest expense." The change in fair value of the hedged item attributable to the risk being hedged is reported as an adjustment to its carrying value and is subsequently amortized into interest expense over its remaining life. Gains or losses resulting from hedge ineffectiveness are included in "Interest expense." When a derivative is no longer designated as a hedge, any remaining difference between the carrying value and par value of the hedged item is amortized to interest expense over the remaining life of the hedged item using the effective interest method. See Note 19 for further information about interest income and interest expense.

The table below presents the gains/(losses) from interest rate derivatives accounted for as hedges, the related hedged deposits, and the hedge ineffectiveness on these derivatives, which primarily consists of amortization of prepaid credit spreads resulting from the passage of time.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Interest rate hedges | **$ (164)** | $ (23) |
| Hedged deposits | **132** | (5) |
| **Hedge ineffectiveness** | **$ (32)** | $ (28) |

## Note 8.
## Fair Value Option

### Other Financial Assets and Financial Liabilities at Fair Value

In addition to all cash and derivative instruments included in "Financial instruments owned, at fair value" and "Financial instruments sold, but not yet purchased, at fair value," the Bank accounts for certain of its other financial assets and financial liabilities at fair value primarily under the fair value option. The primary reasons for electing the fair value option are to:

- Reflect economic events in earnings on a timely basis;
- Mitigate volatility in earnings from using different measurement attributes (e.g., transfers of financial instruments owned accounted for as financings are recorded at fair value whereas the related secured financing would be recorded on an accrual basis absent electing the fair value option); and
- Address simplification and cost-benefit considerations (e.g., accounting for hybrid financial instruments at fair value in their entirety versus bifurcation of embedded derivatives and hedge accounting for debt hosts).

Hybrid financial instruments are instruments that contain bifurcatable embedded derivatives and do not require settlement by physical delivery of non-financial assets (e.g., physical commodities). The Bank does not bifurcate hybrid financial instruments and accounts for the entire hybrid financial instrument at fair value under the fair value option.

Other financial assets and financial liabilities accounted for at fair value under the fair value option include:

- Repurchase agreements and certain resale agreements;

- Substantially all other secured financings, consisting of advances from the Federal Home Loan Bank of New York (FHLB) and transfers of assets accounted for as financings rather than sales;
- Certain unsecured borrowings; and
- Certain time deposits (deposits with no stated maturity are not eligible for a fair value option election), including structured certificates of deposit, which are hybrid financial instruments.

### Fair Value of Other Financial Assets and Financial Liabilities by Level

The table below presents, by level within the fair value hierarchy, other financial assets and financial liabilities accounted for at fair value primarily under the fair value option.

| *$ in millions* | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| **As of December 2016** | | | | |
| **Assets** | | | | |
| Securities purchased under agreements to resell | **$ –** | **$ 2,825** | **$ –** | **$ 2,825** |
| **Total** | **$ –** | **$ 2,825** | **$ –** | **$ 2,825** |
| **Liabilities** | | | | |
| Deposits | **$ –** | **$ (2,128)** | **$ (3,173)** | **$ (5,301)** |
| Securities sold under agreements to repurchase | **–** | **(310)** | **–** | **(310)** |
| Other secured financings | **–** | **(2,432)** | **–** | **(2,432)** |
| Unsecured borrowings | **–** | **(236)** | **–** | **(236)** |
| **Total** | **$ –** | **$ (5,106)** | **$ (3,173)** | **$ (8,279)** |
| As of December 2015 | | | | |
| **Assets** | | | | |
| Securities purchased under agreements to resell | $ – | $ 1,025 | $ – | $ 1,025 |
| Total | $ – | $ 1,025 | $ – | $ 1,025 |
| **Liabilities** | | | | |
| Deposits | $ – | $ (3,929) | $ (2,221) | $ (6,150) |
| Securities sold under agreements to repurchase | – | (3,425) | – | (3,425) |
| Other secured financings | – | (2,919) | – | (2,919) |
| Unsecured borrowings | – | (98) | – | (98) |
| Total | $ – | $ (10,371) | $ (2,221) | $ (12,592) |

In the table above, other financial assets are shown as positive amounts and other financial liabilities are shown as negative amounts.

### Valuation Techniques and Significant Inputs

Other financial assets and financial liabilities at fair value are generally valued based on discounted cash flow techniques, which incorporate inputs with reasonable levels of price transparency, and are generally classified as level 2 because the inputs are observable. Valuation adjustments may be made for liquidity and for counterparty and the Bank's credit quality.

See below for information about the significant inputs used to value other financial assets and financial liabilities at fair value.

**Resale and Repurchase Agreements.** The significant inputs to the valuation of resale and repurchase agreements are funding spreads, the amount and timing of expected future cash flows and interest rates. As of both December 2016 and December 2015, the Bank had no level 3 resale or repurchase agreements. See Note 10 for further information about collateralized agreements and financings.

**Other Secured Financings.** The significant inputs to the valuation of other secured financings at fair value are the amount and timing of expected future cash flows, interest rates, funding spreads, the fair value of the collateral delivered by the Bank (which is determined using the amount and timing of expected future cash flows, market prices, market yields and recovery assumptions) and the frequency of additional collateral calls. As of both December 2016 and December 2015, there were no level 3 other secured financings.

**Deposits.** The significant inputs to the valuation of time deposits are interest rates and the amount and timing of future cash flows. The inputs used to value the embedded derivative component of hybrid financial instruments are consistent with the inputs used to value the Bank's other derivative instruments. See Note 7 for further information about derivatives. See Note 13 for further information about deposits.

The Bank's deposits that are included in level 3 are hybrid financial instruments. As the significant unobservable inputs used to value hybrid financial instruments primarily relate to the embedded derivative component of these deposits, these inputs are incorporated in the Bank's derivative disclosures related to unobservable inputs in Note 7.

### Transfers Between Levels of the Fair Value Hierarchy

Transfers between levels of the fair value hierarchy are reported at the beginning of the reporting period in which they occur. There were no transfers of other financial assets and financial liabilities between level 1 and level 2 and between level 2 and level 3 during 2016 or 2015.

### Level 3 Rollforward

The table below presents a summary of the changes in fair value for other level 3 financial liabilities accounted for at fair value. In the table below:

- Changes in fair value are presented for all other financial liabilities that are categorized as level 3 as of the end of the period.
- Net unrealized gains/(losses) relate to instruments that were still held at period-end.
- If a financial liability was transferred to level 3 during a reporting period, its entire gain or loss for the period is included in level 3. For level 3 other financial liabilities, increases are shown as negative amounts, while decreases are shown as positive amounts.
- Level 3 other financial liabilities are frequently economically hedged with derivatives. Accordingly, gains or losses that are reported in level 3 can be partially offset by gains or losses attributable to level 2 or 3 derivatives. As a result, gains or losses included in the level 3 rollforward below do not necessarily represent the overall impact on the Bank's results of operations, liquidity or capital resources.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Deposits** | | |
| Beginning balance | **$ (2,221)** | $ (1,065) |
| Net realized gains/(losses) | **(22)** | (9) |
| Net unrealized gains/(losses) | **(83)** | 50 |
| Issuances | **(993)** | (1,251) |
| Settlements | **146** | 54 |
| **Ending balance** | **$ (3,173)** | $ (2,221) |

### Level 3 Rollforward Commentary

**Year Ended December 2016.** The net realized and unrealized losses on level 3 other financial liabilities of $105 million (reflecting $22 million of net realized losses and $83 million of net unrealized losses) for 2016 include losses of approximately $65 million reported in "Gains and losses from financial instruments, net" in the consolidated statements of earnings, and losses of $40 million reported in "Debt valuation adjustment" in the consolidated statements of comprehensive income.

The net unrealized loss on level 3 other financial liabilities of $83 million during 2016 consisted of losses on certain hybrid financial instruments included in deposits, principally due to the impact of an increase in the market value of the underlying assets.

There were no transfers into or out of level 3 other financial liabilities during 2016.

**Year Ended December 2015.** The net realized and unrealized gains on level 3 other financial liabilities of $41 million (reflecting $9 million of net realized losses and $50 million of net unrealized gains) for 2015 were reported in "Gains and losses from financial instruments, net."

There were no transfers into or out of level 3 of other financial liabilities during 2015.

### Gains and Losses on Financial Assets and Financial Liabilities Accounted for at Fair Value Under the Fair Value Option

The table below presents the gains and losses recognized in earnings as a result of the Bank electing to apply the fair value option to certain financial assets and financial liabilities. These gains and losses are included in "Gains and losses from financial instruments, net." The table below also includes gains and losses on the embedded derivative component of hybrid financial instruments included in deposits. These gains and losses would have been recognized under other U.S. GAAP even if the Bank had not elected to account for the entire hybrid financial instrument at fair value.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Deposits | **$ (125)** | $ (18) |
| Other | **(26)** | 71 |
| **Total** | **$ (151)** | $ 53 |

In the table above:

- Gains/(losses) exclude contractual interest, which is included in "Interest income" and "Interest expense," for all instruments other than hybrid financial instruments. See Note 19 for further information about interest income and interest expense.
- Other primarily consists of gains/(losses) on certain unsecured borrowings and FHLB advances.

Excluding the gains and losses on the instruments accounted for under the fair value option described above, "Gains and losses from financial instruments, net" primarily represents gains and losses on "Financial instruments owned, at fair value," "Financial instruments sold, but not yet purchased, at fair value" and the syndication of loans and lending commitments.

### Loans and Lending Commitments at Fair Value

The Bank originates loans to provide financing to clients. These loans are typically longer-term in nature. The Bank's lending activities include lending to investment-grade and non-investment-grade corporate borrowers. The Bank's lending activities also include extending loans to borrowers that are secured by commercial and residential real estate. In addition, the Bank extends loans and lending commitments to private wealth management clients that are primarily secured by residential real estate or other assets.

The Bank accounts for certain loans at fair value under the fair value option which are included in "Financial instruments owned, at fair value." See Note 6 for a discussion of the techniques and significant inputs used in the valuation of loans. See Note 9 for information about loans receivable not accounted for at fair value.

The table below presents details about loans at fair value. In the table below, loans to private wealth management clients includes $6.51 billion and $5.95 billion of loans secured by residential real estate, $210 million and $190 million secured by investments in real or financial assets, and $67 million and $31 million of loans secured by commercial real estate as of December 2016 and December 2015, respectively.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Corporate loans | **$ 1,917** | $ 2,614 |
| Loans to private wealth management clients | **6,788** | 6,168 |
| Loans backed by commercial real estate | **1,112** | 1,478 |
| Loans backed by residential real estate | **1** | 43 |
| Other loans | **130** | 51 |
| **Total** | **$ 9,948** | $ 10,354 |

In the table above:

- The aggregate contractual principal amount of loans for which the fair value option was elected exceeded the related fair value by $126 million and $105 million as of December 2016 and December 2015, respectively.
- Included in these amounts are loans in non-accrual status (including loans more than 90 days past due) with a contractual principal balance of $5 million and an immaterial fair value as of December 2016, and a contractual principal balance of $7 million and a fair value of $1 million as of December 2015.

As of December 2016 and December 2015, the fair value of unfunded lending commitments for which the fair value option was elected was a liability of $39 million and $153 million, respectively, and the related total contractual amount of these lending commitments was $5.73 billion and $11.18 billion, respectively. See Note 16 for further information about lending commitments.

### Impact of Credit Spreads on Loans and Lending Commitments

The estimated net gain attributable to changes in instrument-specific credit spreads on loans and lending commitments for which the fair value option was elected was $65 million and $293 million for 2016 and 2015, respectively. The Bank generally calculates the fair value of loans and lending commitments for which the fair value option is elected by discounting future cash flows at a rate which incorporates the instrument-specific credit spreads. For floating-rate loans and lending commitments, substantially all changes in fair value are attributable to changes in instrument-specific credit spreads, whereas for fixed-rate loans and lending commitments, changes in fair value are also attributable to changes in interest rates.

### Debt Valuation Adjustment

The Bank calculates the fair value of financial liabilities for which the fair value option is elected by discounting future cash flows at a rate which incorporates the Bank's credit spreads. The net DVA on such financial liabilities was a loss of $50 million ($31 million, net of tax) for 2016, and was included in "Debt valuation adjustment" in the consolidated statements of comprehensive income. The gains/(losses) reclassified to earnings from accumulated other comprehensive loss upon extinguishment of such financial liabilities were not material for 2016.

## Note 9.
## Loans Receivable

Loans receivable is primarily comprised of loans held for investment that are accounted for at amortized cost net of allowance for loan losses. Interest on loans receivable is recognized over the life of the loan and is recorded on an accrual basis.

The table below presents details about loans receivable.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Corporate loans | **$ 19,372** | $ 16,903 |
| Loans to private wealth management clients | **12,382** | 12,823 |
| Loans backed by commercial real estate | **2,218** | 3,614 |
| Loans backed by residential real estate | **1,029** | 1,325 |
| Other loans | **3,125** | 3,398 |
| Total loans receivable, gross | **38,126** | 38,063 |
| Allowance for loan losses | **(219)** | (189) |
| **Total loans receivable** | **$ 37,907** | $ 37,874 |

In the table above:

- Loans to private wealth management clients include $10.68 billion and $11.25 billion of loans secured by investments in real or financial assets, $1.58 billion and $1.50 billion of loans secured by commercial real estate and $127 million and $75 million of loans secured by residential real estate as of December 2016 and December 2015, respectively.
- Total loans receivable consists of $36.07 billion and $36.38 billion of loans at amortized cost net of allowance as of December 2016 and December 2015, respectively, and $1.84 billion and $1.49 billion of loans held for sale as of as of December 2016 and December 2015, respectively.

The following is a description of the captions in the table above:

- **Corporate Loans.** Corporate loans include term loans, revolving lines of credit, letter of credit facilities and bridge loans, and are principally used for operating liquidity and general corporate purposes, or in connection with acquisitions. Corporate loans include loans originated as part of the Bank's Community Reinvestment Act activities. Corporate loans may be secured or unsecured, depending on the loan purpose, the risk profile of the borrower and other factors. Loans receivable related to the Bank's relationship lending activities are reported within corporate loans.
- **Loans to Private Wealth Management Clients.** Loans to the Bank's private wealth management clients include loans used by clients to finance private asset purchases, employ leverage for strategic investments in real or financial assets, bridge cash flow timing gaps or provide liquidity for other needs. Such loans are primarily secured by securities or other assets.
- **Loans Backed by Commercial Real Estate.** Loans backed by commercial real estate include loans extended by the Bank that are directly or indirectly secured by hotels, retail stores, multifamily housing complexes and commercial and industrial properties. Loans backed by commercial real estate also include loans purchased by the Bank.
- **Loans Backed by Residential Real Estate.** Loans backed by residential real estate include loans extended by the Bank to clients who warehouse assets that are directly or indirectly secured by residential real estate. Loans backed by residential real estate also include loans purchased by the Bank.

- **Other Loans.** Other loans primarily include loans extended to clients who warehouse assets that are directly or indirectly secured by consumer loans, including auto loans, and private student loans and other assets. Other loans also includes unsecured loans to individuals made through Marcus.

### Loans and Lending Commitments Held For Investment

As of December 2016 and December 2015, the fair value of loans held for investment was $36.02 billion and $36.09 billion, respectively. As of December 2016, had these loans been carried at fair value and included in the fair value hierarchy, $20.33 billion and $15.69 billion would have been classified in level 2 and level 3, respectively. As of December 2015, had these loans been carried at fair value and included in the fair value hierarchy, $18.82 billion and $17.27 billion would have been classified in level 2 and level 3, respectively.

The Bank also extends lending commitments that are held for investment and accounted for on an accrual basis. As of December 2016 and December 2015, such lending commitments were $86.37 billion and $77.98 billion, respectively. Substantially all of these commitments were extended to corporate borrowers and were primarily related to the Bank's relationship lending activities. The carrying value and the estimated fair value of such lending commitments were liabilities of $249 million and $2.11 billion, respectively, as of December 2016, and $201 million and $2.78 billion, respectively, as of December 2015. The carrying value included $163 million and $122 million as of December 2016 and December 2015, respectively, related to the allowance for losses on unfunded commitments. As these lending commitments are not accounted for at fair value under the fair value option or at fair value in accordance with other U.S. GAAP, their fair value is not included in the Bank's fair value hierarchy in Notes 6 through 8. As of December 2016, had these lending commitments been carried at fair value and included in the Bank's fair value hierarchy, $910 million and $1.20 billion would have been classified in level 2 and level 3, respectively. As of December 2015, had these lending commitments been carried at fair value and included in the Bank's fair value hierarchy, $1.12 billion and $1.66 billion would have been classified in level 2 and level 3, respectively.

### Loans and Lending Commitments Held For Sale

Included in loans receivable are loans held for sale which are accounted for at the lower of cost or market. The carrying value of such loans was $1.84 billion and $1.49 billion as of December 2016 and December 2015, respectively. As of December 2016 and December 2015, the carrying value of loans held for sale generally approximated fair value.

While these loans are carried at amounts that approximate fair value, they are not accounted for at fair value under the fair value option or at fair value in accordance with other U.S. GAAP and therefore are not included in the Bank's fair value hierarchy in Notes 6 through 8. Had these items been included in the fair value hierarchy, most would have been classified in level 3 as of December 2016 and level 2 as of December 2015.

In addition, as of December 2016 and December 2015, $5.76 billion and $7.32 billion, respectively, of the Bank's lending commitments were held for sale and were accounted for at the lower of cost or market.

### Credit Quality

The Bank's risk assessment process includes evaluating the credit quality of its loans receivable. For loans receivable, the Bank performs credit reviews which include initial and ongoing analyses of its borrowers. A credit review is an independent analysis of the capacity and willingness of a borrower to meet its financial obligations, resulting in an internal credit rating. The determination of internal credit ratings also incorporates assumptions with respect to the nature of and outlook for the borrower's industry, and the economic environment. The Bank also assigns a regulatory risk rating to such loans based on the definitions provided by the U.S. federal bank regulatory agencies.

The table below presents gross loans receivable and related lending commitments by the Bank's internally determined public rating agency equivalent and by regulatory risk rating. Non-criticized/pass loans and lending commitments represent loans and lending commitments that are performing and/or do not demonstrate adverse characteristics that are likely to result in a credit loss. The table below includes loans and lending commitments held for investment and held for sale.

| $ in millions | Loans | Lending Commitments | Total |
|---|---|---|---|
| **Credit Rating Equivalent** | | | |
| **As of December 2016** | | | |
| Investment-grade | **$ 17,584** | **$ 67,984** | **$ 85,568** |
| Non-investment-grade | **20,542** | **24,098** | **44,640** |
| **Total** | **$ 38,126** | **$ 92,082** | **$ 130,208** |
| As of December 2015 | | | |
| Investment-grade | $ 18,323 | $ 59,251 | $ 77,574 |
| Non-investment-grade | 19,740 | 25,738 | 45,478 |
| Total | $ 38,063 | $ 84,989 | $ 123,052 |
| **Regulatory Risk Rating** | | | |
| **As of December 2016** | | | |
| Non-criticized/pass | **$ 37,118** | **$ 90,090** | **$ 127,208** |
| Criticized | **1,008** | **1,992** | **3,000** |
| **Total** | **$ 38,126** | **$ 92,082** | **$ 130,208** |
| As of December 2015 | | | |
| Non-criticized/pass | $ 36,633 | $ 83,627 | $ 120,260 |
| Criticized | 1,430 | 1,362 | 2,792 |
| Total | $ 38,063 | $ 84,989 | $ 123,052 |

The Bank enters into economic hedges to mitigate credit risk on certain loans receivable and commercial lending commitments (both of which are held for investment) related to the Bank's relationship lending activities. Such hedges are accounted for at fair value. See Note 16 for further information about commercial lending commitments and associated hedges.

Loans receivable are determined to be impaired when it is probable that the Bank will not be able to collect all principal and interest due under the contractual terms of the loan. At that time, loans are generally placed on non-accrual status and all accrued but uncollected interest is reversed against interest income, and interest subsequently collected is recognized on a cash basis to the extent the loan balance is deemed collectible. Otherwise, all cash received is used to reduce the outstanding loan balance. In certain circumstances, the Bank may also modify the original terms of a loan agreement by granting a concession to a borrower experiencing financial difficulty. Such modifications are considered troubled debt restructurings and typically include interest rate reductions, payment extensions, and modification of loan covenants. Loans modified in a troubled debt restructuring are considered impaired and are subject to specific loan-level reserves.

As of December 2016 and December 2015, the gross carrying value of impaired loans receivable on non-accrual status were $163 million and $62 million, respectively. As of December 2016, there were no loans that were modified in troubled debt restructuring, however the Bank had $144 million in lending commitments that were modified in troubled debt restructuring. There were no such loans or lending commitments as of December 2015.

### Allowance for Losses on Loans and Lending Commitments

The Bank's allowance for loan losses is comprised of specific loan-level reserves and portfolio level reserves as described below:

- Specific loan-level reserves are determined on loans that exhibit credit quality weakness and are therefore individually evaluated for impairment.
- Portfolio level reserves are determined on loans not deemed impaired by aggregating groups of loans with similar risk characteristics and estimating the probable loss inherent in the portfolio.

The allowance for loan losses is determined using various inputs, including industry default and loss data, current macroeconomic indicators, borrower's capacity to meet its financial obligations, borrower's country of risk, loan seniority and collateral type. Management's estimate of loan losses entails judgment about loan collectability at the reporting dates, and there are uncertainties inherent in those judgments. While management uses the best information available to determine this estimate, future adjustments to the allowance may be necessary based on, among other things, changes in the economic environment or variances between actual results and the original assumptions used. Loans are charged off against the allowance for loan losses when deemed to be uncollectible. As of December 2016 and December 2015, substantially all of the Bank's loans receivable were evaluated for impairment at the portfolio level.

The Bank also records an allowance for losses on lending commitments that are held for investment and accounted for on an accrual basis. Such allowance is determined using the same methodology as the allowance for loan losses, while also taking into consideration the probability of drawdowns or funding, and is included in "Other liabilities and accrued expenses." As of December 2016 and December 2015, most lending commitments were evaluated for impairment at the portfolio level.

The table below presents changes in the allowance for loan losses and the allowance for losses on lending commitments.

| *$ in millions* | Year Ended December 2016 | 2015 |
|---|---|---|
| **Allowance for loan losses** | | |
| Beginning balance | **$ 189** | $ 137 |
| Charge-offs | **–** | (1) |
| Provision | **58** | 53 |
| Other | **(28)** | – |
| **Ending balance** | **$ 219** | $ 189 |
| | | |
| **Allowance for losses on lending commitments** | | |
| Beginning balance | **$ 122** | $ 61 |
| Provision | **61** | 61 |
| Other | **(20)** | – |
| **Ending balance** | **$ 163** | $ 122 |

In the table above:

- Other represents the reduction to the allowance related to loans and lending commitments transferred to held for sale.
- As of December 2016 and December 2015, the allowance for loan losses and allowance for losses on lending commitments were primarily related to corporate loans and corporate lending commitments and were primarily determined at the portfolio level.

## Note 10.
## Collateralized Agreements and Financings

Collateralized agreements are securities purchased under agreements to resell (resale agreements). Collateralized financings are securities sold under agreements to repurchase (repurchase agreements) and other secured financings. The Bank enters into these transactions in order to, among other things, facilitate client activities, invest excess cash, and finance certain Bank activities.

Collateralized agreements and financings are presented on a net-by-counterparty basis when a legal right of setoff exists. Interest on collateralized agreements and collateralized financings is recognized over the life of the transaction and included in "Interest income" and "Interest expense," respectively. See Note 19 for further information about interest income and interest expense.

The table below presents the carrying value of resale and repurchase agreements.

| *$ in millions* | As of December 2016 | 2015 |
|---|---|---|
| Securities purchased under agreements to resell | **$ 3,673** | $ 2,481 |
| Securities sold under agreements to repurchase | **310** | 3,425 |

In the table above:

- All repurchase agreements are carried at fair value under the fair value option.
- As of December 2016 and December 2015, $2.83 billion and $1.03 billion of resale agreements were at fair value, respectively.

See Note 8 for further information about the valuation techniques and significant inputs used to determine fair value.

### Resale and Repurchase Agreements

A resale agreement is a transaction in which the Bank purchases financial instruments from a seller, typically in exchange for cash, and simultaneously enters into an agreement to resell the same or substantially the same financial instruments to the seller at a stated price plus accrued interest at a future date.

A repurchase agreement is a transaction in which the Bank sells financial instruments to a buyer, typically in exchange for cash, and simultaneously enters into an agreement to repurchase the same or substantially the same financial instruments from the buyer at a stated price plus accrued interest at a future date.

The financial instruments purchased or sold in resale and repurchase agreements primarily include U.S. government and federal agency obligations.

The Bank receives financial instruments purchased under resale agreements and makes delivery of financial instruments sold under repurchase agreements. To mitigate credit exposure, the Bank monitors the market value of these financial instruments on a daily basis, and delivers or obtains additional collateral due to changes in the market value of the financial instruments, as appropriate. For resale agreements, the Bank typically requires collateral with a fair value approximately equal to the carrying value of the relevant assets in the consolidated statements of financial condition.

### Offsetting Arrangements

The table below presents the gross and net resale and repurchase agreements and the related amount of counterparty netting included in the consolidated statements of financial condition. The table below also presents the amounts not offset in the consolidated statements of financial condition, including counterparty netting that does not meet the criteria for netting under U.S. GAAP and the fair value of cash or securities collateral received or posted subject to enforceable credit support agreements.

| | Assets | Liabilities |
|---|---|---|
| *$ in millions* | Resale agreements | Repurchase agreements |
| **As of December 2016** | | |
| **Included in the consolidated statements of financial condition** | | |
| Gross carrying value | **$ 9,471** | **$ 6,108** |
| Counterparty netting | **(5,798)** | **(5,798)** |
| **Total** | **3,673** | **310** |
| **Amounts not offset** | | |
| Counterparty netting | **(115)** | **(115)** |
| Collateral | **(2,971)** | **(124)** |
| **Total** | **$ 587** | **$ 71** |
| As of December 2015 | | |
| **Included in the consolidated statements of financial condition** | | |
| Gross carrying value | $ 5,759 | $ 6,703 |
| Counterparty netting | (3,278) | (3,278) |
| Total | 2,481 | 3,425 |
| **Amounts not offset** | | |
| Counterparty netting | (131) | (131) |
| Collateral | (2,234) | (3,294) |
| Total | $ 116 | $ – |

In the table above:

- The majority of the gross carrying values of these arrangements are subject to enforceable netting agreements.
- Where the Bank has received or posted collateral under credit support agreements, but has not yet determined such agreements are enforceable, the related collateral has not been netted.

### Gross Carrying Value of Repurchase Agreements

The table below presents the gross carrying value of repurchase agreements by class of collateral pledged.

| | Repurchase agreements as of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| U.S. government and federal agency obligations | **$ 5,913** | $ 6,336 |
| Corporate debt securities | **76** | 92 |
| Non-U.S. government and agency obligations | **39** | 275 |
| Equities and convertible debentures | **80** | – |
| **Total** | **$ 6,108** | $ 6,703 |

As of December 2016 and December 2015, all of the Bank's repurchase agreements were either overnight or had no stated maturity.

### Other Secured Financings

In addition to repurchase agreements, the Bank funds certain assets through the use of other secured financings and pledges financial instruments and other assets as collateral in these transactions. These other secured financings consist of:

- FHLB advances; and
- Transfers of assets accounted for as financings rather than sales primarily collateralized by bank loans and mortgage whole loans.

The Bank has elected to apply the fair value option to substantially all other secured financings because the use of fair value eliminates non-economic volatility in earnings that would arise from using different measurement attributes. See Note 8 for further information about other secured financings that are accounted for at fair value.

Other secured financings that are not recorded at fair value are recorded based on the amount of cash received plus accrued interest, which generally approximates fair value. While these financings are carried at amounts that approximate fair value, they are not accounted for at fair value under the fair value option or at fair value in accordance with other U.S. GAAP and therefore are not included in the Bank's fair value hierarchy in Notes 6 through 8. Had these financings been included in the Bank's fair value hierarchy, they would have been primarily classified in level 3 as of December 2016 and December 2015.

**FHLB Advances.** As a member of the FHLB, the Bank can draw under a funding arrangement secured by eligible collateral. As of December 2016 and December 2015, outstanding borrowings from the FHLB were $2.43 billion and $2.92 billion, respectively. As of both December 2016 and December 2015, interest rates ranged from 3-month LIBOR plus 0.14% to 0.36% with a weighted average rate of 3-month LIBOR plus 0.23%. These borrowings are carried at fair value under the fair value option in the Bank's fair value hierarchy. See Note 8 for further information about borrowings accounted for at fair value. Outstanding FHLB advances include $503 million and $502 million of short-term borrowings as of December 2016 and December 2015, respectively, and $1.93 billion and $2.42 billion of long-term borrowings as of December 2016 and December 2015, respectively.

**Other.** As of December 2016 and December 2015, other secured financings, excluding FHLB advances, were $137 million and $107 million, respectively. As of both December 2016 and December 2015, all of the amounts outstanding had a contractual maturity of greater than one year.

As of December 2016 and December 2015, the aggregate contractual principal amount of other secured financings for which the fair value option was elected approximated their fair value.

### Collateral Received and Pledged

The Bank receives cash and securities (e.g., U.S. government and federal agency, other sovereign and corporate obligations) as collateral, primarily in connection with resale agreements, derivative transactions and customer margin loans. The Bank obtains cash and securities as collateral on an upfront or contingent basis for derivative instruments and collateralized agreements to reduce its credit exposure to individual counterparties.

In many cases, the Bank is permitted to deliver or repledge financial instruments received as collateral when entering into repurchase agreements or collateralized derivative transactions.

The Bank also pledges certain financial instruments owned, at fair value and loans receivable in connection with repurchase agreements and other secured financings. These assets are pledged to counterparties who may or may not have the right to deliver or repledge them.

The table below presents financial instruments at fair value received as collateral that were available to be delivered or repledged and were delivered or repledged by the Bank.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Collateral available to be delivered or repledged | **$ 13,637** | $ 6,622 |
| Collateral that was delivered or repledged | **6,197** | 3,778 |

The table below presents information about assets pledged.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Financial instruments owned, at fair value pledged to counterparties that: | | |
| Had the right to deliver or repledge | **$ 2,719** | $ 5,358 |
| Did not have the right to deliver or repledge | **5,306** | 4,456 |
| Other assets pledged to counterparties that did not have the right to deliver or repledge | **137** | 107 |

## Note 11. Variable Interest Entities

A variable interest in a VIE is an investment (e.g., debt or equity securities) or other interest (e.g., derivatives or loans and lending commitments) that will absorb portions of the VIE's expected losses and/or receive portions of the VIE's expected residual returns.

The Bank enters into derivatives with certain mortgage-backed and corporate collateralized debt obligations (CDO) VIEs and sells loans to collateralized loan obligations (CLO) VIEs. The Bank also makes investments in and lends to VIEs that hold real estate and distressed loans. The Bank enters into basis swaps on assets held by other asset-backed VIEs. The Bank generally enters into derivatives with other counterparties to mitigate its risk from derivatives with these VIEs.

VIEs generally finance the purchase of assets by issuing debt and equity securities that are either collateralized by or indexed to the assets held by the VIE. The debt and equity securities issued by a VIE may include tranches of varying levels of subordination. See Note 3 for the Bank's consolidation policies, including the definition of a VIE.

### VIE Consolidation Analysis

The enterprise with a controlling financial interest in a VIE is known as the primary beneficiary and consolidates the VIE. The Bank determines whether it is the primary beneficiary of a VIE by performing an analysis that principally considers:

- Which variable interest holder has the power to direct the activities of the VIE that most significantly impact the VIE's economic performance;
- Which variable interest holder has the obligation to absorb losses or the right to receive benefits from the VIE that could potentially be significant to the VIE;
- The VIE's purpose and design, including the risks the VIE was designed to create and pass through to its variable interest holders;
- The VIE's capital structure;
- The terms between the VIE and its variable interest holders and other parties involved with the VIE; and
- Related-party relationships.

The Bank reassesses its initial evaluation of whether an entity is a VIE when certain reconsideration events occur. The Bank reassesses its determination of whether it is the primary beneficiary of a VIE on an ongoing basis based on current facts and circumstances.

### Nonconsolidated VIEs

The table below presents a summary of the nonconsolidated VIEs in which the Bank holds variable interests. The Bank's exposure to the obligations of VIEs is generally limited to its interests in these entities. In certain instances, the Bank provides guarantees, including derivative guarantees, to VIEs or holders of variable interests in VIEs. The nature of the Bank's variable interests can take different forms, as described in the rows under maximum exposure to loss. In the table below:

- The maximum exposure to loss excludes the benefit of offsetting financial instruments that are held to mitigate the risks associated with these variable interests.
- For loans and investments, the maximum exposure to loss is the carrying value of these interests.
- For commitments and guarantees, and derivatives, the maximum exposure to loss is the notional amount, which does not represent anticipated losses and also has not been reduced by unrealized losses already recorded. As a result, the maximum exposure to loss exceeds liabilities recorded for commitments and guarantees, and derivatives provided to VIEs.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Total nonconsolidated VIEs** | | |
| Assets in VIEs | **$ 6,460** | $ 6,207 |
| Carrying value of variable interests – assets | **713** | 812 |
| Carrying value of variable interests – liabilities | **202** | 129 |
| Maximum exposure to loss: | | |
| Commitments and guarantees | **535** | 819 |
| Derivatives | **3,831** | 3,742 |
| Loans and investments | **622** | 765 |
| **Total maximum exposure to loss** | **$ 4,988** | $ 5,326 |

The table below disaggregates the information for nonconsolidated VIEs included in the summary table above.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Mortgage-backed** | | |
| Assets in VIEs | **$ 284** | $ 482 |
| Carrying value of variable interests – assets | **23** | 12 |
| Carrying value of variable interests – liabilities | **–** | 1 |
| Maximum exposure to loss: | | |
| Derivatives | **280** | 454 |
| **Total maximum exposure to loss** | **$ 280** | $ 454 |
| **Corporate CDOs and CLOs** | | |
| Assets in VIEs | **$ 729** | $ 625 |
| Carrying value of variable interests – assets | **147** | 246 |
| Carrying value of variable interests – liabilities | **–** | 1 |
| Maximum exposure to loss: | | |
| Commitments and guarantees | **186** | 647 |
| Derivatives | **581** | 117 |
| Loans and investments | **79** | 245 |
| **Total maximum exposure to loss** | **$ 846** | $ 1,009 |
| **Real estate, credit-related and other investing** | | |
| Assets in VIEs | **$ 2,280** | $ 1,562 |
| Carrying value of variable interests – assets | **524** | 485 |
| Carrying value of variable interests – liabilities | **1** | 1 |
| Maximum exposure to loss: | | |
| Commitments and guarantees | **349** | 172 |
| Loans and investments | **524** | 485 |
| **Total maximum exposure to loss** | **$ 873** | $ 657 |
| **Other asset-backed** | | |
| Assets in VIEs | **$ 3,167** | $ 3,538 |
| Carrying value of variable interests – assets | **19** | 69 |
| Carrying value of variable interests – liabilities | **201** | 126 |
| Maximum exposure to loss: | | |
| Derivatives | **2,970** | 3,171 |
| Loans and investments | **19** | 35 |
| **Total maximum exposure to loss** | **$ 2,989** | $ 3,206 |

In the table above:

- Mortgage-backed includes assets in VIEs of $164 million and $223 million, and maximum exposure to loss of $164 million and $223 million, as of December 2016 and December 2015, respectively, related to CDOs backed by mortgage obligations.
- The carrying value of all assets and liabilities held by the Bank related to its variable interests in nonconsolidated VIEs are included in the consolidated statements of financial condition in "Financial instruments owned, at fair value" and "Financial instruments sold, but not yet purchased, at fair value."

### Consolidated VIEs

As of both December 2016 and December 2015, the Bank had no consolidated VIEs.

## Note 12.
## Other Assets

Other assets are generally less liquid assets. The table below presents other assets by type.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Receivables from affiliates | **$ 421** | $ 399 |
| Federal Reserve Board shares | **413** | 412 |
| Income tax-related assets | **229** | 191 |
| Federal Home Loan Bank shares | **140** | 160 |
| Investments in qualified affordable housing projects | **263** | 229 |
| Other | **85** | 25 |
| **Total** | **$ 1,551** | $ 1,416 |

## Note 13.
## Deposits

The table below presents the types and sources of the Bank's deposits.

| *$ in millions* | Savings and Demand | Time | Total |
|---|---|---|---|
| **As of December 2016** | | | |
| Private bank and online retail | **$ 52,197** | **$ 2,938** | **$ 55,135** |
| Brokered certificates of deposit | **–** | **35,155** | **35,155** |
| Deposit sweep programs | **16,019** | **–** | **16,019** |
| Institutional | **5,676** | **3,000** | **8,676** |
| **Total** | **$ 73,892** | **$ 41,093** | **$ 114,985** |
| As of December 2015 | | | |
| Private bank | $ 32,062 | $ 1,660 | $ 33,722 |
| Brokered certificates of deposit | – | 32,567 | 32,567 |
| Deposit sweep programs | 15,791 | – | 15,791 |
| Institutional | 4,204 | 2,000 | 6,204 |
| Total | $ 52,057 | $ 36,227 | $ 88,284 |

In April 2016, the Bank acquired GE Capital Bank's online retail deposit platform and assumed $16.52 billion of deposits, consisting of $8.76 billion in online deposit accounts and certificates of deposit and $7.76 billion in brokered certificates of deposit. In the table above:

- Savings and demand accounts are comprised of money market deposit accounts, negotiable order of withdrawal accounts, and demand deposit accounts that have no stated maturity or expiration date. Savings account holders may be required by the Bank to give written notice of intended withdrawals not less than seven days before such withdrawals are made and may be limited on the number of withdrawals made within a month. Demand account holders are not subject to restrictions with respect to the timing and number of transactions that deposit holders may execute.
- Substantially all of the Bank's deposits are interest-bearing and are held in the U.S.
- Time deposits consist primarily of brokered certificates of deposit which have stipulated maturity dates and rates of interest. Early withdrawals of time deposits are generally prohibited.
- Time deposits include $5.30 billion and $6.15 billion as of December 2016 and December 2015, respectively, of deposits accounted for at fair value under the fair value option. See below and Note 8 for further information about deposits accounted for at fair value.

- Time deposits have a weighted average maturity of approximately 2.5 years and 3 years as of December 2016 and December 2015, respectively.
- Deposit sweep programs represent long-term contractual agreements with several U.S. broker-dealers who sweep client cash to FDIC-insured deposits. Pursuant to the external deposit sweep program agreements, each third party broker-dealer agrees, for a prescribed term, to place a certain minimum amount of deposits from their clients with the Bank. Each individual client's deposit may be withdrawn at any time. As of both December 2016 and December 2015, the Bank had deposit sweep program contractual arrangements with eight external U.S. broker-dealers.
- All institutional deposits are from Group Inc.
- Deposits insured by the FDIC as of December 2016 and December 2015 were approximately $69.91 billion and $55.48 billion, respectively.

The table below presents the Bank's time deposits by contractual maturity.

| *$ in millions* | **As of December 2016** |
|---|---|
| 2017 | **$ 14,253** |
| 2018 | **6,016** |
| 2019 | **5,451** |
| 2020 | **4,097** |
| 2021 | **3,559** |
| 2022 - thereafter | **7,717** |
| **Total** | **$ 41,093** |

As of December 2016, deposits include $5.05 billion of time deposits that were greater than $250,000.

The Bank's savings and demand deposits are recorded based on the amount of cash received plus accrued interest, which approximates fair value. In addition, the Bank designates certain derivatives as fair value hedges to convert a majority of its time deposits not accounted for at fair value from fixed-rate obligations into floating-rate obligations. Accordingly, the carrying value of time deposits approximated fair value as of December 2016 and December 2015. While these savings and demand deposits and most time deposits are carried at amounts that approximate fair value, they are not accounted for at fair value under the fair value option or at fair value in accordance with other U.S. GAAP and therefore are not included in the Bank's fair value hierarchy in Notes 6 through 8. Had these deposits been included in the Bank's fair value hierarchy, they would have been classified in level 2 as of December 2016 and December 2015.

The table below presents time deposits accounted for under the fair value option by tenor.

| | As of December | | | |
|---|---|---|---|---|
| *$ in millions* | **2016** | | 2015 | |
| | **Principal** | **Fair Value** | Principal | Fair Value |
| Maturity ≤ 1 year | **$ 1,732** | **$ 1,736** | $ 2,020 | $ 2,021 |
| Maturity > 1 year | **3,476** | **3,565** | 4,247 | 4,129 |
| **Total** | **$ 5,208** | **$ 5,301** | $ 6,267 | $ 6,150 |

## Note 14.
## Unsecured Borrowings

The table below presents details about the Bank's unsecured borrowings.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Unsecured long-term borrowings | **$ 2,133** | $ 2,059 |
| Unsecured short-term borrowings | **120** | 100 |
| **Total** | **$ 2,253** | $ 2,159 |

### Subordinated Borrowings

The Bank has a $5.00 billion revolving subordinated loan agreement with Group Inc., which matures in 2039. As of both December 2016 and December 2015, outstanding subordinated borrowings were $2.00 billion. The carrying value of the subordinated borrowings generally approximates fair value. Amounts borrowed under this agreement bear interest at the overnight bank funding rate plus 1.85% per annum. Any amounts payable under the agreement would be subordinate to the claims of certain other creditors of the Bank, including depositors and regulatory agencies.

### Senior Unsecured Borrowings

The Bank had an $8.50 billion committed senior unsecured credit line with Group Inc., which matured in 2017. As of December 2016, there were no outstanding borrowings under this facility. As of December 2015, the outstanding amount was $59 million. In February 2017, the credit line was amended to a $4.0 billion senior unsecured facility, committed on an intraday basis.

The Bank has a senior debt facility consisting of an uncommitted term unsecured line of credit with Group Inc., which matures in 2019. As of both December 2016 and December 2015, there were no outstanding borrowings under this facility.

### Other Unsecured Borrowings

The Bank held $253 million and $100 million of other unsecured borrowings as of December 2016 and December 2015, respectively, substantially all of which were hybrid financial instruments. As of December 2016, $120 million was classified as short-term borrowings and $133 million was classified as long-term borrowings. As of December 2015, $100 million was classified as short-term borrowings and there were no long-term borrowings outstanding.

The Bank accounts for hybrid financial instruments at fair value under the fair value option. See Note 8 for further information about hybrid financial instruments that are accounted for at fair value.

## Note 15.
## Other Liabilities and Accrued Expenses

The table below presents other liabilities and accrued expenses by type.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Income tax-related liabilities | **$ 762** | $ 953 |
| Payables to affiliates | **522** | 970 |
| Accrued expenses and other | **538** | 496 |
| **Total** | **$ 1,822** | $ 2,419 |

## Note 16.
## Commitments, Contingencies and Guarantees

### Commitments

The table below presents the Bank's commitments by type.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| Commitments to extend credit | | |
| Commercial lending: | | |
| Investment-grade | **$ 67,511** | $ 65,259 |
| Non-investment-grade | **26,914** | 28,028 |
| Warehouse financing | **3,440** | 3,190 |
| Total commitments to extend credit | **97,865** | 96,477 |
| Contingent and forward starting resale agreements | **599** | 709 |
| Forward starting repurchase and secured lending agreements | **77** | 298 |
| Investment commitments | **767** | 708 |
| Other | **448** | 307 |
| **Total commitments** | **$ 99,756** | $ 98,499 |

The table below presents the Bank's commitments by period of expiration.

| | **As of December 2016** | | | |
|---|---|---|---|---|
| *$ in millions* | **2017** | **2018 - 2019** | **2020 - 2021** | **2022 - Thereafter** |
| Commitments to extend credit | | | | |
| Commercial lending: | | | | |
| Investment-grade | **$ 17,869** | **$ 12,892** | **$ 36,406** | **$ 344** |
| Non-investment-grade | **2,286** | **7,135** | **14,231** | **3,262** |
| Warehouse financing | **366** | **1,305** | **263** | **1,506** |
| Total commitments to extend credit | **20,521** | **21,332** | **50,900** | **5,112** |
| Contingent and forward starting resale agreements | **599** | **–** | **–** | **–** |
| Forward starting repurchase and secured lending agreements | **77** | **–** | **–** | **–** |
| Investment commitments | **29** | **–** | **–** | **738** |
| Other | **448** | **–** | **–** | **–** |
| **Total commitments** | **$ 21,674** | **$ 21,332** | **$ 50,900** | **$ 5,850** |

### Commitments to Extend Credit

The Bank's commitments to extend credit are agreements to lend with fixed termination dates and depend on the satisfaction of all contractual conditions to borrowing. These commitments are presented net of amounts syndicated to third parties. The total commitment amount does not necessarily reflect actual future cash flows because the Bank may syndicate all or substantial additional portions of these commitments. In addition, commitments can expire unused or be reduced or cancelled at the counterparty's request.

As of December 2016 and December 2015, $86.37 billion and $77.98 billion, respectively, of the Bank's lending commitments were held for investment and were accounted for on an accrual basis. See Note 9 for further information about such commitments. In addition, as of December 2016 and December 2015, $5.76 billion and $7.32 billion, respectively, of the Bank's lending commitments were held for sale and were accounted for at the lower of cost or market.

The Bank accounts for the remaining commitments to extend credit at fair value. Losses, if any, are generally recorded, net of any fees in "Gains and losses from financial instruments, net."

**Commercial Lending.** The Bank's commercial lending commitments are extended to investment-grade and non-investment-grade corporate borrowers. Commitments to investment-grade corporate borrowers are principally used for operating liquidity and general corporate purposes. The Bank also extends lending commitments in connection with contingent acquisition financing and other types of corporate lending as well as commercial real estate financing. Commitments that are extended for contingent acquisition financing are often intended to be short-term in nature, as borrowers often seek to replace them with other funding sources.

Sumitomo Mitsui Financial Group, Inc. (SMFG) provides the Bank and its affiliates with credit loss protection on certain approved loan commitments (primarily investment-grade commercial lending commitments). The notional amount of such loan commitments was $26.88 billion and $27.03 billion as of December 2016 and December 2015, respectively, substantially all of which was in the Bank. The credit loss protection on loan commitments provided by SMFG is generally limited to 95% of the first loss the Bank and its affiliates realize on such commitments, up to a maximum of approximately $950 million. In addition, subject to the satisfaction of certain conditions, upon the Bank's request, SMFG will provide protection for 70% of additional losses on such commitments, up to a maximum of $1.13 billion, of which $768 million of protection had been provided as of both December 2016 and December 2015. The Bank also uses other financial instruments to mitigate credit risks related to certain commitments not covered by SMFG. These instruments primarily include credit default swaps that reference the same or similar underlying instrument or entity, or credit default swaps that reference a market index.

**Warehouse Financing.** The Bank provides financing to clients who warehouse financial assets. These arrangements are secured by the warehoused assets, primarily consisting of consumer and corporate loans.

### Contingent and Forward Starting Resale Agreements/Forward Starting Repurchase Agreements

The Bank enters into resale agreements and repurchase agreements that settle at a future date, generally within three business days. The Bank also enters into commitments to provide contingent financing to its clients and counterparties through resale agreements. The Bank's funding of these commitments depends on the satisfaction of all contractual conditions to the resale agreement and these commitments can expire unused.

### Investment Commitments

The Bank's investment commitments include commitments to invest in securities, real estate and other assets.

### Contingencies

**Legal Proceedings.** See Note 22 for information about legal proceedings.

**Certain Mortgage-Related Contingencies.** There are multiple areas of focus by regulators, governmental agencies and others within the mortgage market that may impact originators, issuers, servicers and investors. There remains significant uncertainty surrounding the nature and extent of any potential exposure for participants in this market.

The Bank has not been a significant originator of residential mortgage loans. The Bank did purchase loans originated by others and generally received loan-level representations. During the period 2005 through 2008, the Bank sold approximately $10 billion of loans to government-sponsored enterprises and approximately $11 billion of loans to other third parties. In addition, the Bank transferred loans to trusts and other mortgage securitization vehicles.

In connection with both sales of loans and securitizations, the Bank provided loan-level representations and/or assigned the loan-level representations from the party from whom the Bank purchased the loans. The Bank's exposure to claims for repurchase of residential mortgage loans based on alleged breaches of representations will depend on a number of factors such as the extent to which these claims are made within the statute of limitations, taking into consideration the agreements to toll the statute of limitations the Bank has entered into with trustees representing certain trusts. Based upon the large number of defaults in residential mortgages, including those sold or securitized by the Bank, there is a potential for repurchase claims. However, the Bank is not in a position to make a meaningful estimate of that exposure at this time.

## Guarantees

The table below presents information about certain derivatives that meet the definition of a guarantee, securities lending indemnifications and certain other guarantees.

| *$ in millions* | Derivatives | Securities lending indemnifications | Other financial guarantees |
|---|---|---|---|
| **As of December 2016** | | | |
| **Carrying Value of Net Liability** | **$ 1,666** | **$ –** | **$ 7** |
| **Maximum Payout/Notional Amount by Period of Expiration** | | | |
| 2017 | **$ 39,488** | **$ 38,368** | **$ 497** |
| 2018 - 2019 | **39,190** | **–** | **588** |
| 2020 - 2021 | **20,075** | **–** | **1,074** |
| 2022 - thereafter | **4,767** | **–** | **22** |
| **Total** | **$ 103,520** | **$ 38,368** | **$ 2,181** |
| As of December 2015 | | | |
| Carrying Value of Net Liability | $ 1,363 | $ – | $ 1 |
| **Maximum Payout/Notional Amount by Period of Expiration** | | | |
| 2016 | $ 49,816 | $ 37,256 | $ 124 |
| 2017 - 2018 | 22,817 | – | 976 |
| 2019 - 2020 | 18,978 | – | 663 |
| 2021 - thereafter | 4,835 | – | 656 |
| Total | $ 96,446 | $ 37,256 | $ 2,419 |

In the table above:

- The maximum payout is based on the notional amount of the contract and does not represent anticipated losses.
- Amounts exclude certain commitments to issue standby letters of credit that are included in "Commitments to extend credit." See the tables in "Commitments" above for a summary of the Bank's commitments.

**Derivative Guarantees.** The Bank enters into various derivatives that meet the definition of a guarantee under U.S. GAAP, including written currency contracts and interest rate caps, floors and swaptions. These derivatives are risk managed together with derivatives that do not meet the definition of a guarantee, and therefore the amounts in the table above do not reflect the Bank's overall risk related to its derivative activities. Disclosures about derivatives are not required if they may be cash settled and the Bank has no basis to conclude it is probable that the counterparties held the underlying instruments at inception of the contract. The Bank has concluded that these conditions have been met for certain large, internationally active commercial and investment bank counterparties, central clearing counterparties and certain other counterparties. Accordingly, the Bank has not included such contracts in the tables above. In addition, see Note 7 for information about credit derivatives that meet the definition of a guarantee, which are not included in the table above.

Derivatives are accounted for at fair value and therefore the carrying value is considered the best indication of payment/performance risk for individual contracts. However, the carrying values in the table above exclude the effect of counterparty and cash collateral netting.

**Securities Lending Indemnifications.** The Bank, in its capacity as an agency lender, indemnifies most of its securities lending customers against losses incurred in the event that borrowers do not return securities and the collateral held is insufficient to cover the market value of the securities borrowed. Collateral held by the lenders in connection with securities lending indemnifications was $39.36 billion and $38.27 billion as of December 2016 and December 2015, respectively. Because the contractual nature of these arrangements requires the Bank to obtain collateral with a market value that exceeds the value of the securities lent to the borrower, there is minimal performance risk associated with these guarantees.

**Other Financial Guarantees.** In the ordinary course of business, the Bank provides other financial guarantees of the obligations of third parties (e.g., standby letters of credit and other guarantees to enable clients to complete transactions). These guarantees represent obligations to make payments to beneficiaries if the guaranteed party fails to fulfill its obligation under a contractual arrangement with that beneficiary.

**Indemnities and Guarantees of Service Providers.** In the ordinary course of business, the Bank indemnifies and guarantees certain service providers, such as clearing and custody agents, trustees and administrators, against specified potential losses in connection with their acting as an agent of, or providing services to, the Bank or its affiliates.

The Bank may also be liable to some clients or other parties for losses arising from its custodial role or caused by acts or omissions of third-party service providers, including sub-custodians and third-party brokers. In certain cases, the Bank has the right to seek indemnification from these third-party service providers for certain relevant losses incurred by the Bank. In addition, the Bank is a member of a clearing and settlement network as well as exchanges around the world that may require the Bank to meet the obligations of such networks and exchanges in the event of member defaults and other loss scenarios.

**Other Representations, Warranties and Indemnifications.** The Bank provides representations and warranties to counterparties in connection with a variety of commercial transactions and occasionally indemnifies them against potential losses caused by the breach of those representations and warranties. The Bank may also provide indemnifications protecting against changes in or adverse application of certain U.S. tax laws in connection with ordinary-course transactions such as borrowings or derivatives.

In addition, the Bank may provide indemnifications to some counterparties to protect them in the event additional taxes are owed or payments are withheld, due either to a change in or an adverse application of certain non-U.S. tax laws.

These indemnifications generally are standard contractual terms and are entered into in the ordinary course of business. Generally, there are no stated or notional amounts included in these indemnifications, and the contingencies triggering the obligation to indemnify are not expected to occur. The Bank is unable to develop an estimate of the maximum payout under these guarantees and indemnifications. However, management believes that it is unlikely the Bank will have to make any material payments under these arrangements, and no material liabilities related to these arrangements have been recognized in the consolidated statements of financial condition as of December 2016 and December 2015.

## Note 17.
## Regulation and Capital Adequacy

The Bank is regulated as described in Note 1, and is subject to consolidated regulatory capital requirements as described below. For purposes of assessing the adequacy of its capital, the Bank calculates its capital requirements in accordance with the risk-based capital and leverage regulations applicable to state member banks which are based on the Federal Reserve Board's revised risk-based capital and leverage regulations, subject to certain transitional provisions (Revised Capital Framework).

The risk-based capital requirements are expressed as capital ratios that compare measures of regulatory capital to risk-weighted assets (RWAs). Failure to comply with these capital requirements could result in restrictions being imposed by the Bank's regulators. The Bank's capital levels are also subject to qualitative judgments by the regulators about components of capital, risk weightings and other factors.

### Capital Framework

The regulations under the Revised Capital Framework are largely based on the Basel Committee on Banking Supervision's (Basel Committee) capital framework for strengthening international capital standards (Basel III) and also implement certain provisions of the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act). Under the Revised Capital Framework, the Bank is an "Advanced approach" banking organization.

The Bank calculates its Common Equity Tier 1 (CET1), Tier 1 capital and Total capital ratios in accordance with (i) the Standardized approach and market risk rules set out in the Revised Capital Framework (together, the Standardized Capital Rules) and (ii) the Advanced approach and market risk rules set out in the Revised Capital Framework (together, the Basel III Advanced Rules). The lower of each ratio calculated in (i) and (ii) is the ratio against which the Bank's compliance with its minimum ratio requirements is assessed. Each of the ratios calculated in accordance with the Standardized Capital Rules was lower than that calculated in accordance with the Basel III Advanced Rules and therefore the Standardized Capital ratios were the ratios that applied to the Bank as of December 2016 and December 2015. The capital ratios that apply to the Bank can change in future reporting periods as a result of these regulatory requirements.

**Regulatory Capital and Capital Ratios.** The U.S. Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), among other things, requires the federal bank regulatory agencies to take "prompt corrective action" in respect of depository institutions that do not meet specified capital requirements. FDICIA establishes five capital categories for FDIC-insured banks: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized.

Under the regulatory framework for prompt corrective action applicable to the Bank, in order to meet the quantitative requirements for being a "well-capitalized" depository institution, the Bank must meet higher minimum requirements than the minimum ratios in the table below. The table below presents the minimum ratios and "well-capitalized" minimum ratios required for the Bank.

| | Minimum Ratio as of December | | **"Well-capitalized"** |
|---|---|---|---|
| | **2016** | 2015 | **Minimum Ratio** |
| CET1 ratio | **5.125%** | 4.5% | **6.5%** |
| Tier 1 capital ratio | **6.625%** | 6.0% | **8.0%** |
| Total capital ratio | **8.625%** | 8.0% | **10.0%** |
| Tier 1 leverage ratio | **4.000%** | 4.0% | **5.0%** |

The Bank was in compliance with its minimum capital requirements and the "well-capitalized" minimum ratios as of December 2016 and December 2015. The Bank's capital levels and prompt corrective action classification are also subject to qualitative judgements by the regulators about components of capital, risk weightings and other factors. Failure to comply with these capital requirements, including a breach of the buffers discussed below, could result in restrictions being imposed by the Bank's regulators.

In the table above:

- The minimum ratios as of December 2016 reflect the 25% phase-in of the capital conservation buffer (0.625%), and the counter-cyclical capital buffer of zero percent described below.
- Tier 1 leverage ratio is defined as Tier 1 capital divided by quarterly average adjusted total assets (which includes adjustments for goodwill and identifiable intangible assets).

Certain aspects of the Revised Capital Framework's requirements phase in over time (transitional provisions). These include capital buffers. The minimum CET1, Tier 1 and Total capital ratios that apply to the Bank will increase as the capital buffers are phased in.

The capital conservation buffer, which consists entirely of capital that qualifies as CET1, began to phase in on January 1, 2016 and will continue to do so in increments of 0.625% per year until it reaches 2.5% of RWAs on January 1, 2019.

The Revised Capital Framework also provides for a counter-cyclical capital buffer, which is an extension of the capital conservation buffer, of up to 2.5% (consisting entirely of CET1) intended to counteract systemic vulnerabilities. As of December 2016 the Federal Reserve Board has set the counter-cyclical capital buffer at zero percent.

Failure to meet the capital levels inclusive of the buffers could result in limitations on the Bank's ability to distribute capital, including dividend payments, and to make certain discretionary compensation payments.

**Definition of Risk-Weighted Assets.** RWAs are calculated in accordance with both the Standardized Capital Rules and the Basel III Advanced Rules. The following is a comparison of RWA calculations under these rules:

- RWAs for credit risk in accordance with the Standardized Capital Rules are calculated in a different manner than the Basel III Advanced Rules. The primary difference is that the Standardized Capital Rules do not contemplate the use of internal models to compute exposure for credit risk on derivatives and securities financing transactions, whereas the Basel III Advanced Rules permit the use of such models, subject to supervisory approval. In addition, credit RWAs calculated in accordance with the Standardized Capital Rules utilize prescribed risk-weights which depend largely on the type of counterparty, rather than on internal assessments of the creditworthiness of such counterparties;
- RWAs for market risk in accordance with the Standardized Capital Rules and the Basel III Advanced Rules are generally consistent; and
- RWAs for operational risk are not required by the Standardized Capital Rules, whereas the Basel III Advanced Rules do include such a requirement.

**Regulatory Capital Ratios and RWAs.** Each of the ratios calculated in accordance with the Standardized Capital Rules was lower than that calculated in accordance with the Basel III Advanced Rules, and therefore the Standardized Capital ratios were the ratios that applied to the Bank as of December 2016 and December 2015.

The table below presents the Bank's ratios calculated in accordance with both the Standardized and Basel III Advanced Rules.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Standardized** | | |
| Common Equity Tier 1 | **$ 24,485** | $ 23,017 |
| Tier 1 capital | **24,485** | 23,017 |
| Tier 2 capital | **2,382** | 2,311 |
| **Total capital** | **$ 26,867** | $ 25,328 |
| **Basel III Advanced** | | |
| Common Equity Tier 1 | **$ 24,485** | $ 23,017 |
| Tier 1 capital | **24,485** | 23,017 |
| Standardized Tier 2 capital | **2,382** | 2,311 |
| Allowance for losses on loans and lending commitments | **(382)** | (311) |
| Tier 2 capital | **2,000** | 2,000 |
| Total capital | **$ 26,485** | $ 25,017 |
| **RWAs** | | |
| Standardized | **$ 204,232** | $ 202,197 |
| Basel III Advanced | **131,051** | 131,059 |
| **CET1 ratio** | | |
| Standardized | **12.0%** | 11.4% |
| Basel III Advanced | **18.7%** | 17.6% |
| **Tier 1 capital ratio** | | |
| Standardized | **12.0%** | 11.4% |
| Basel III Advanced | **18.7%** | 17.6% |
| **Total capital ratio** | | |
| Standardized | **13.2%** | 12.5% |
| Basel III Advanced | **20.2%** | 19.1% |
| **Tier 1 leverage ratio** | **14.4%** | 16.4% |

The increase in the Bank's Standardized and Advanced capital ratios from December 2015 to December 2016 is primarily due to an increase in Common Equity Tier 1 capital, principally due to net earnings for 2016.

## Required Reserves

The deposits of the Bank are insured by the FDIC to the extent provided by law. The Federal Reserve Board requires that the Bank maintain cash reserves with the Federal Reserve Bank of New York. The amount deposited by the Bank held at the Federal Reserve Bank of New York was $74.24 billion and $49.36 billion as of December 2016 and December 2015, respectively, which exceeded regulatory reserve requirements of $153 million and $110 million by $74.09 billion and $49.25 billion as of December 2016 and December 2015, respectively. The increase in the amount deposited by the Bank held at the Federal Reserve Bank of New York from December 2015 to December 2016 is primarily a result of the acquisition of GE Capital Bank's online deposit platform in April 2016. See Note 13 for further information about this acquisition.

## Note 18.
## Transactions with Related Parties

Transactions between the Bank and its affiliates are regulated by the Federal Reserve Board. These regulations generally limit the types and amounts of transactions (including credit extensions from the Bank) that may take place and generally require those transactions to be on terms that are at least as favorable to the Bank as prevailing terms for comparable transactions with non-affiliates. These regulations generally do not apply to transactions between the Bank and its subsidiaries.

The table below presents amounts outstanding to/from affiliates, as defined by U.S. GAAP.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Assets** | | |
| Cash | **$ 67** | $ 30 |
| Securities purchased under agreements to resell, at fair value | **467** | 200 |
| Receivables from customers and counterparties, brokers, dealers and clearing organizations | **1,265** | 2,154 |
| Financial instruments owned, at fair value | **746** | 1,132 |
| Other assets | **421** | 399 |
| **Total** | **$ 2,966** | $ 3,915 |
| **Liabilities** | | |
| Deposits due to affiliates | **$ 8,699** | $ 6,215 |
| Securities sold under agreements to repurchase, at fair value | **233** | 3,421 |
| Payables to customers and counterparties, brokers, dealers and clearing organizations | **170** | 336 |
| Financial instruments sold, but not yet purchased at fair value | **1,372** | 1,376 |
| Unsecured borrowings (includes $171 as of December 2016 and $37 as of December 2015, at fair value) | **2,187** | 2,098 |
| Other liabilities and accrued expenses | **522** | 970 |
| **Total** | **$ 13,183** | $ 14,416 |

### Group Inc. General Guarantee

In December 2008, Group Inc. agreed to generally guarantee the payment obligations of the Bank, subject to certain limitations.

### Interest Income and Interest Expense

The Bank recognizes interest income and interest expense in connection with various affiliated transactions. These transactions include securities purchased under agreements to resell, securities sold under agreements to repurchase, deposits due to affiliates, collateral posted and received, other liabilities and accrued expenses, and subordinated borrowings. The Bank recorded net interest expense to affiliates of $26 million for 2016 and $89 million for 2015.

### Other Transactions

The Bank enters into various activities with affiliated entities and allocates revenues to, and receives revenues from, such affiliates for their participation. The Bank allocated net revenues to affiliates of $586 million for 2016 and $737 million for 2015. These amounts are included in "Gains and losses from financial instruments, net."

The Bank is subject to service charges from affiliates. The Bank reimbursed affiliates $523 million for 2016 and $442 million for 2015 for services rendered. These amounts are included in "Service charges."

The Bank enters into derivative contracts with Group Inc. and its affiliates in the normal course of business. As of December 2016 and December 2015, the net outstanding derivative contracts with Group Inc. and affiliates totaled $746 million and $1.13 billion, respectively, in "Financial instruments owned, at fair value." As of both December 2016 and December 2015, the net outstanding derivative contracts with Group Inc. and affiliates totaled $1.37 billion, in "Financial instruments sold, but not yet purchased, at fair value."

In connection with its partnership interest in MMDP, the Bank has provided to Mitsui Sumitomo additional protection in the form of assets held in a VIE which could be liquidated for the benefit of Mitsui Sumitomo under certain circumstances.

### Equity Transactions

During 2016 and 2015, there were no capital contributions or dividends between the Bank and Group Inc.

**Note 19.**
## Interest Income and Interest Expense

Interest is recorded over the life of the instrument on an accrual basis based on contractual interest rates. The table below presents the Bank's sources of interest income and interest expense.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Interest income** | | |
| Deposits with banks | **$ 362** | $ 128 |
| Securities purchased under agreements to resell | **109** | 78 |
| Financial instruments owned, at fair value | **836** | 887 |
| Loans receivable | **1,133** | 865 |
| Other interest | **262** | 91 |
| **Total interest income** | **2,702** | 2,049 |
| **Interest expense** | | |
| Deposits | **803** | 363 |
| Securities sold under agreement to repurchase | **15** | 1 |
| Financial instruments sold, but not yet purchased, at fair value | **37** | 44 |
| Borrowings | **71** | 56 |
| Other interest | **257** | 186 |
| **Total interest expense** | **1,183** | 650 |
| **Net interest income** | **$ 1,519** | $ 1,399 |

In the table above:

- Other interest income includes interest income on collateral balances posted to counterparties, loans accounted for as held for sale and other interest-earning assets.
- Borrowings includes interest expense from other secured financings and unsecured borrowings, which primarily relates to interest incurred on the Bank's affiliate borrowing from Group Inc. and FHLB advances.
- Other interest expense includes interest expense on collateral balances received from counterparties and on funding facilities, primarily from affiliates.

**Note 20.**
## Income Taxes

### Provision for Income Taxes

Income taxes are provided for using the asset and liability method under which deferred tax assets and liabilities are recognized for temporary differences between the financial reporting and tax bases of assets and liabilities. The Bank reports interest expense related to income tax matters in "Provision for taxes" and income tax penalties in "Other expenses."

The Bank's results of operations are included in the consolidated federal and certain state tax returns of GS Group. The Bank computes its tax liability as if it was filing a tax return on a modified separate company basis and settles such liability with Group Inc. pursuant to a tax sharing agreement. To the extent the Bank generates tax benefits from losses, it will be reimbursed by Group Inc. pursuant to a tax sharing agreement at such time as GS Group would have been able to utilize such losses. As of December 2016, the Bank recorded a net tax payable of $762 million in "Other liabilities and accrued expenses" and net deferred tax assets of $229 million in "Other assets." As of December 2015, the Bank recorded a net tax payable of $953 million in "Other liabilities and accrued expenses" and net deferred tax assets of $191 million in "Other assets."

For 2016 and 2015, differences between the Bank's statutory tax rate and effective tax rate primarily related to state income taxes, settlement of tax audits, and tax credits.

The table below presents the components of the provision for taxes.

| | Year Ended December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Current taxes** | | |
| U.S. federal | **$ 716** | $ 814 |
| State and local | **8** | (113) |
| **Total current tax expense** | **724** | 701 |
| **Deferred taxes** | | |
| U.S. federal | **(2)** | 59 |
| State and local | **(17)** | 20 |
| **Total deferred tax expense/(benefit)** | **(19)** | 79 |
| **Provision for taxes** | **$ 705** | $ 780 |

In the table above, for 2016 and 2015, state and local current taxes includes the impact of settlements of state and local examinations.

### Deferred Income Taxes

Deferred income taxes reflect the net tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities. These temporary differences result in taxable or deductible amounts in future years and are measured using the tax rates and laws that will be in effect when such differences are expected to reverse. Valuation allowances are established to reduce deferred tax assets to the amount that more likely than not will be realized. As of December 2016 and December 2015, the Bank's valuation allowance recorded was not material. Tax assets and liabilities are presented as a component of "Other assets" and "Other liabilities and accrued expenses," respectively.

The table below presents the components of deferred tax assets and liabilities.

| | As of December | |
|---|---|---|
| *$ in millions* | **2016** | 2015 |
| **Deferred tax assets** | | |
| Reserves | **$ 145** | $ 120 |
| Unrealized losses | **66** | 64 |
| ASC 740 assets related to unrecognized tax benefits | **1** | 54 |
| Compensation and benefits | **26** | 19 |
| Depreciation and amortization | **44** | – |
| Other comprehensive income-related | **11** | – |
| Other, net | **6** | – |
| **Total deferred tax assets** | **$ 299** | $ 257 |
| **Deferred tax liabilities** | | |
| Unrealized gains | **70** | 66 |
| **Total deferred tax liabilities** | **$ 70** | $ 66 |

### Unrecognized Tax Benefits

The Bank recognizes tax positions in the consolidated financial statements only when it is more likely than not that the position will be sustained on examination by the relevant taxing authority based on the technical merits of the position. A position that meets this standard is measured at the largest amount of benefit that will more likely than not be realized on settlement. A liability is established for differences between positions taken in a tax return and amounts recognized in the consolidated financial statements.

As of December 2016 and December 2015, the Bank recorded a net liability for uncertain tax positions of $2 million and $98 million, respectively. The accrued liability for interest expense related to income tax matters and income tax penalties was $1 million as of December 2016 and was $26 million as of December 2015. It is reasonably possible that unrecognized tax benefits could change during the twelve months subsequent to December 2016 due to potential audit settlements. However, at this time it is not possible to estimate any potential change.

### Regulatory Tax Examinations

The Bank is subject to examination by the U.S. Internal Revenue Service (IRS), as part of GS Group, and other taxing authorities in jurisdictions where the Bank has significant business operations such as New York State and City. The tax years under examination vary by jurisdiction.

The Joint Committee on Taxation finalized its review of the U.S. Federal examinations of GS Group for fiscal 2008 through calendar 2010 in 2016. The examinations of 2011 and 2012 began in 2013.

GS Group has been accepted into the Compliance Assurance Process program by the IRS for each of the tax years from 2013 through 2017. This program allows GS Group to work with the IRS to identify and resolve potential U.S. federal tax issues before the filing of tax returns. The 2013 through 2015 tax years remain subject to post-filing review.

New York State and City examinations of GS Bank tax filings for fiscal 2007 through calendar 2014 have been completed. All years including and subsequent to 2007 for all other significant states, excluding New York State and City, remain open to examination by the taxing authorities.

All years including and subsequent to the years detailed above remain open to examination by the taxing authorities.

The Bank believes that the liability for unrecognized tax benefits it has established is adequate in relation to the potential for additional assessments.

## Note 21.
## Credit Concentrations

Credit concentrations may arise from the Bank's lending, market-making and other activities and may be impacted by changes in economic, industry or political factors. The Bank seeks to mitigate credit risk by actively monitoring exposures and obtaining collateral from counterparties as deemed appropriate.

While the Bank's activities expose it to many different industries and counterparties, the Bank routinely executes a high volume of transactions with asset managers, investment funds, commercial banks, brokers and dealers, clearing houses and exchanges, which results in significant credit concentrations.

In the ordinary course of business, the Bank may also be subject to a concentration of credit risk to a particular counterparty, borrower or issuer, including sovereign issuers, or to a particular clearing house or exchange.

As of December 2016 and December 2015, the Bank had exposure of $14.03 billion or 8.8% of total assets, and $14.71 billion or 10.9% of total assets, respectively, related to U.S. government and federal agency obligations. These are included in "Financial instruments owned, at fair value." As of December 2016 and December 2015, the Bank did not have credit exposure to any other external counterparty that exceeded 2% of total assets.

To reduce credit exposures, the Bank may enter into agreements with counterparties that permit the Bank to offset receivables and payables with such counterparties and/or enable the Bank to obtain collateral on an upfront or contingent basis. Collateral obtained by the Bank related to derivative assets is principally cash and is held by the Bank or a third-party custodian. Collateral obtained by the Bank related to resale agreements is primarily U.S. government and federal agency obligations. See Note 10 for further information about collateralized agreements and financings.

The Bank had $6.76 billion and $3.23 billion of U.S. government and federal agency obligations that collateralize resale agreements as of December 2016 and December 2015, respectively. Because the Bank's primary credit exposure on such transactions is to the counterparty to the transaction, the Bank would be exposed to the collateral issuer only in the event of counterparty default.

## Note 22.
## Legal Proceedings

The Bank is involved in a number of judicial, regulatory and other proceedings (including those described below) concerning matters arising in connection with the conduct of the Bank's businesses. Many of these proceedings are in early stages, and involve an indeterminate amount of damages.

With respect to the matters described below, management is unable to estimate a range of reasonably possible loss for matters in which the Bank is involved due to various factors, including (i) actual or potential plaintiffs have not claimed an amount of money damages, except in those instances where management can otherwise determine an appropriate amount, (ii) the matters are in early stages, (iii) matters relate to regulatory investigations or reviews, except in those instances where management can otherwise determine an appropriate amount, (iv) there is uncertainty as to the likelihood of a class being certified or the ultimate size of the class, (v) there is uncertainty as to the outcome of pending appeals or motions, (vi) there are significant factual issues to be resolved, and/or (vii) there are novel legal issues presented.

Management does not believe, based on currently available information, that the outcomes of any matters will have a material adverse effect on the Bank's financial condition, though the outcomes could be material to the Bank's operating results for any particular period, depending, in part, upon the operating results for such period. Matters that the Bank is involved in include but are not limited to the following:

- **SunEdison Bankruptcy Litigation.** The Bank is among the defendants named in an adversary proceeding filed on October 20, 2016 in the U.S. Bankruptcy Court for the Southern District of New York arising from the bankruptcy of SunEdison. The complaint alleges that amounts transferred and liens granted by SunEdison to its secured creditors, including the Bank, prior to filing for bankruptcy were fraudulent and preferential transfers. Plaintiffs seek to recoup those transfers, avoid those liens and disallow certain claims of the secured creditors. The Bank received pre-filing payments from SunEdison aggregating $169 million that are subject to the recoupment claims and holds $75 million of secured debt subject to the avoidance and disallowance claims. Defendants moved to dismiss on November 22, 2016.

- **Interest Rate Swap Antitrust Litigation.** The Bank and certain affiliates of the Bank (including Group Inc.) are among the defendants named in putative antitrust class actions relating to the trading of interest rate swaps, filed beginning in November 2015 and consolidated in the U.S. District Court for the Southern District of New York. The second consolidated amended complaint filed on December 9, 2016 generally alleges a conspiracy among the defendants since at least January 1, 2007 to preclude exchange trading of interest rate swaps. The complaint seeks declaratory and injunctive relief, as well as treble damages in an unspecified amount. Defendants moved to dismiss on January 20, 2017.

  The Bank and certain affiliates of the Bank (including Group Inc.) are among the defendants named in antitrust actions relating to the trading of interest rate swaps filed in the U.S. District Court for the Southern District of New York beginning in April 2016 by two operators of swap execution facilities and certain of their affiliates. These actions have been consolidated with the class action described above for pretrial proceedings. The second consolidated amended complaint filed on December 9, 2016 generally asserts claims under federal and state antitrust laws and state common law in connection with an alleged conspiracy among the defendants to preclude trading of interest rate swaps on the plaintiffs' respective swap execution facilities and seeks declaratory and injunctive relief, as well as treble damages in an unspecified amount. Defendants moved to dismiss on January 20, 2017.

- **Regulatory Investigations and Reviews and Related Litigation.** The Bank and certain of its affiliates (including Group Inc.) are subject to a number of investigations and reviews by, and in some cases have received subpoenas and requests for documents and information from, various governmental and regulatory bodies and self-regulatory organizations and litigation relating to such matters in each case relating to the Bank's current and past businesses and operations, including, but not limited to residential mortgage servicing, lending and compliance with related consumer laws; the sales, trading, execution and clearance of derivatives, currencies and other financial products and related communications and activities, including trading activities and communications in connection with the establishment of benchmark rates, such as currency rates, and activities in U.S. Treasury securities; and transactions involving government-related financings and other matters, including those related to 1Malaysia Development Berhad (1MDB), a sovereign wealth fund in Malaysia. The Bank is cooperating with all such regulatory investigations and reviews.

In addition, governmental and other investigations, reviews, actions, and litigation involving the Bank's affiliates and such affiliates' businesses and operations, including without limitation various matters referred to above, may have an impact on the Bank's businesses and operations.

## Note 23.
## Employee Incentive Plans and Employee Benefit Plans

The cost of employee services received in exchange for a share-based award is generally measured based on the grant-date fair value of the award. Shared-based awards that do not require future service (i.e., vested awards, including awards granted to retirement-eligible employees) are expensed immediately. Shared-based awards that require future service are amortized over the relevant service period. Expected forfeitures are included in determining share-based employee compensation expense. Group Inc. pays cash dividend equivalents on outstanding restricted stock units (RSUs).

### Stock Incentive Plan

Group Inc. sponsors a stock incentive plan, The Goldman Sachs Amended and Restated Stock Incentive Plan (2015) (2015 SIP), which provides for grants of RSUs, restricted stock, dividend equivalent rights, incentive stock options, nonqualified stock options, stock appreciation rights, and other share-based awards, each of which may be subject to performance conditions. On May 21, 2015, the 2015 SIP was approved by Group Inc.'s shareholders. The 2015 SIP replaced the Amended and Restated Stock Incentive Plan (2013) (2013 SIP) previously in effect, and applies to awards granted on or after the date of approval.

### Restricted Stock Units

Group Inc. grants RSUs to employees under the 2015 SIP, which are valued based on the closing price of the underlying shares on the date of grant after taking into account a liquidity discount for any applicable post-vesting and delivery transfer restrictions. RSUs generally vest and underlying shares of common stock deliver as outlined in the applicable award agreements. Employee award agreements generally provide that vesting is accelerated in certain circumstances, such as on retirement, death, disability and conflicted employment. The amortization of the cost of these RSUs is allocated to the Bank by Group Inc. Delivery of the underlying shares of common stock is conditioned on the grantees satisfying certain vesting and other requirements outlined in the award agreements.

The table below presents the activity related to Group Inc. RSUs granted to Bank employees.

| | Restricted Stock Units Outstanding | | Weighted Average Grant-Date Fair Value of Restricted Stock Units Outstanding | |
|---|---|---|---|---|
| | Future Service Required | No Future Service Required | Future Service Required | No Future Service Required |
| Outstanding, December 2015 | 88,918 | 175,121 | $ 163.31 | $ 149.71 |
| Granted | **104,362** | **91,986** | **140.15** | **133.24** |
| Forfeited | **(26,156)** | **(928)** | **159.67** | **131.93** |
| Delivered | **–** | **(105,848)** | **–** | **146.36** |
| Vested | **(71,705)** | **71,705** | **163.66** | **163.66** |
| Transfers | **49,956** | **(12,511)** | **186.13** | **141.55** |
| **Outstanding, December 2016** | **145,375** | **219,525** | **155.70** | **149.53** |

In the table above:

- The weighted average grant-date fair value of RSUs granted during 2016 and 2015 was $136.91 and $163.03, respectively. The fair value of the RSUs granted during 2016 and 2015 includes a liquidity discount of 10.1% and 8.4%, respectively, to reflect post-vesting and delivery transfer restrictions of up to 4 years.
- The aggregate fair value of awards that vested during 2016 and 2015 was $27 million and $21 million, respectively.

In the first quarter of 2017, 146,549 year-end RSUs were granted to Bank employees, of which 103,798 RSUs require future service as a condition of delivery for the related shares of common stock. These awards are subject to additional conditions as outlined in the award agreements. Generally, shares underlying these awards, net of required withholding tax, deliver over a three-year period but are subject to post-vesting and delivery transfer restrictions through January 2022. These grants are not included in the table above.

### Stock Options

Stock options generally vest as outlined in the applicable stock option agreement. In general, options expire on the tenth anniversary of the grant date, although they may be subject to earlier termination or cancellation under certain circumstances in accordance with the terms of the applicable stock option agreement and the SIP in effect at the time of grant.

The table below presents the activity related to outstanding Group Inc. stock options granted to the Bank employees in 2006 through 2008.

| | Options Outstanding | Weighted Average Exercise Price | Aggregate Intrinsic Value *(in millions)* | Weighted Average Remaining Life (years) |
|---|---|---|---|---|
| Outstanding, December 2015 | 24,413 | $ 78.78 | $ 2 | 3.00 |
| Exercised | **(14,283)** | **78.78** | | |
| **Outstanding, December 2016** | **10,130** | **78.78** | **2** | **2.00** |
| **Exercisable, December 2016** | **10,130** | **78.78** | **2** | **2.00** |

In the table above the total intrinsic value of options exercised during 2016 and 2015 was $2 million and immaterial, respectively.

Total employee share-based compensation expense, net of forfeitures, was $26 million and $20 million for 2016 and 2015, respectively.

As of December 2016, there was $12 million of total unrecognized compensation cost related to non-vested share-based compensation arrangements. This cost is expected to be recognized over a weighted average period of 1.66 years.

### Defined Benefit Pension Plan

Group Inc. maintains a defined benefit pension plan for substantially all U.S. employees hired prior to November 1, 2003. As of November 2004, this plan was closed to new participants and frozen for existing participants. Group Inc. also maintains unfunded postretirement benefit plans that provide medical and life insurance for eligible retirees and their dependents covered under these programs. The Bank's contribution to these plans did not have a material impact on the Bank's consolidated results of operations.

### Defined Contribution Plan

The Bank contributes to Group Inc. employer-sponsored defined contribution plan. The Bank's contribution to this plan did not have a material impact on the Bank's consolidated results of operations.

## Note 24.
## Subsequent Events

The Bank evaluated subsequent events through March 20, 2017, the date the consolidated financial statements were issued, and determined that there were no material events or transactions that would require recognition or additional disclosure in these consolidated financial statements.

# Distribution of Assets, Liabilities and Shareholder's Equity

The tables below present a summary of average balances and interest rates.

| *$ in millions* | Average Balance for the Year Ended December 2016 | 2015 |
|---|---|---|
| **Assets** | | |
| Deposits with banks | **$ 69,284** | $ 48,066 |
| Securities purchased under agreements to resell | **3,395** | 4,116 |
| Financial instruments owned, at fair value | **25,575** | 27,902 |
| Loans receivable | **37,397** | 31,563 |
| Other interest-earning assets | **8,456** | 7,245 |
| **Total interest-earning assets** | **144,107** | 118,892 |
| Cash and due from banks | **268** | 575 |
| Other non-interest-earning assets | **15,307** | 13,530 |
| **Total assets** | **$ 159,682** | $ 132,997 |
| **Liabilities** | | |
| Interest-bearing deposits | **$ 108,911** | $ 84,679 |
| Securities sold under agreements to repurchase, at fair value | **3,730** | 6,255 |
| Financial instruments sold, but not yet purchased, at fair value | **2,266** | 1,892 |
| Borrowings | **5,246** | 4,156 |
| Other interest-bearing liabilities | **4,448** | 3,821 |
| **Total interest-bearing liabilities** | **124,601** | 100,803 |
| Non-interest bearing deposits | **2,739** | 1,237 |
| Other non-interest-bearing liabilities | **8,421** | 8,765 |
| **Total liabilities** | **$ 135,761** | $ 110,805 |
| Shareholder's equity | **23,921** | 22,192 |
| **Total liabilities and shareholder's equity** | **$ 159,682** | $ 132,997 |

| *$ in millions* | Interest for the Year Ended December 2016 | 2015 |
|---|---|---|
| **Assets** | | |
| Deposits with banks | **$ 362** | $ 128 |
| Securities purchased under agreements to resell | **109** | 78 |
| Financial instruments owned, at fair value | **836** | 887 |
| Loans receivable | **1,133** | 865 |
| Other interest-earning assets | **262** | 91 |
| **Total interest-earning assets** | **$ 2,702** | $ 2,049 |
| **Liabilities** | | |
| Interest-bearing deposits | **$ 803** | $ 363 |
| Securities sold under agreements to repurchase, at fair value | **15** | 1 |
| Financial instruments sold, but not yet purchased, at fair value | **37** | 44 |
| Borrowings | **71** | 56 |
| Other interest-bearing liabilities | **257** | 186 |
| **Total interest-bearing liabilities** | **$ 1,183** | $ 650 |
| **Net interest income** | **$ 1,519** | $ 1,399 |

| | Average Rate for the Year Ended December 2016 | 2015 |
|---|---|---|
| **Assets** | | |
| Deposits with banks | **0.52%** | 0.27% |
| Securities purchased under agreements to resell | **3.21%** | 1.90% |
| Financial instruments owned, at fair value | **3.27%** | 3.18% |
| Loans receivable | **3.03%** | 2.74% |
| Other interest-earning assets | **3.10%** | 1.26% |
| **Total interest-earning assets** | **1.87%** | 1.72% |
| **Liabilities** | | |
| Interest-bearing deposits | **0.74%** | 0.43% |
| Securities sold under agreements to repurchase, at fair value | **0.40%** | 0.02% |
| Financial instruments sold, but not yet purchased, at fair value | **1.63%** | 2.33% |
| Borrowings | **1.35%** | 1.35% |
| Other interest-bearing liabilities | **5.78%** | 4.87% |
| **Total interest-bearing liabilities** | **0.95%** | 0.64% |
| Net interest margin (bps) | **105** | 118 |

In the tables above:

- Deposits with banks primarily consist of deposits held at the FRBNY.

- See Note 10 to the consolidated financial statements and "Results of Operations" for further information about securities purchased under agreements to resell and securities sold under agreements to repurchase and related interest.
- See Notes 4 through 8 to the consolidated financial statements and "Results of Operations" for further information about financial instruments owned, at fair value, and financial instruments sold, but not yet purchased, at fair value, and related interest.
- Loans receivable is comprised of loans held for investment that are accounted for at amortized cost net of allowance for loan losses. Interest on loans receivable is recognized over the life of the loan and is recorded on an accrual basis. See Note 9 to the consolidated financial statements and "Results of Operations" for further information about loans receivable and related interest.
- Other interest-bearing assets and liabilities primarily consists of certain receivables and payables from customers and counterparties.
- Other non-interest-earning assets and other non-interest-bearing liabilities include derivatives. See Note 19 to the consolidated financial statements and "Results of Operations" for further information about other interest income and interest expense.
- Borrowings include subordinated borrowings and other secured financings. See Notes 10 and 14 to the consolidated financial statements and "Balance Sheet Analysis and Metrics" for further information about short-term and long-term borrowings and related interest.
- Interest-bearing deposits primarily consist of deposits from private wealth management clients, through deposit sweep agreements with third-party broker-dealers, through the issuances of term certificates of deposit and directly from our retail customers through our online deposit platform. See Note 13 to the consolidated financial statements and "Results of Operations" for further information about deposits and related interest.

## Changes in Net Interest Income, Volume and Rate Analysis

The table below presents an analysis of the effect on net interest income of volume and rate changes. In this analysis, changes due to volume/rate variance have been allocated to volume.

| | Year Ended December 2016 versus December 2015 | | |
|---|---|---|---|
| | Increase (decrease) due to change in: | | |
| *$ in millions* | Volume | Rate | Net Change |
| **Interest-earning assets** | | | |
| Deposits with banks | **$ 111** | **$ 123** | **$ 234** |
| Securities purchased under agreements to resell | **(23)** | **54** | **31** |
| Financial instruments owned, at fair value | **(76)** | **25** | **(51)** |
| Loans receivable | **178** | **90** | **268** |
| Other interest-earning assets | **38** | **133** | **171** |
| **Change in interest income** | **228** | **425** | **653** |
| **Interest-bearing liabilities** | | | |
| Interest-bearing deposits | **179** | **261** | **440** |
| Securities sold under agreements to repurchase, at fair value | **(10)** | **24** | **14** |
| Financial instruments sold, but not yet purchased at fair value | **6** | **(13)** | **(7)** |
| Borrowings | **15** | **–** | **15** |
| Other interest-bearing liabilities | **36** | **35** | **71** |
| **Change in interest expense** | **226** | **307** | **533** |
| **Change in net interest income** | **$ 2** | **$ 118** | **$ 120** |

## Selected Loan Data

The tables below presents a summary of the Bank's lending portfolio.

| $ in millions | As of December 2016 | | |
|---|---|---|---|
| | **Loans Receivable** | **Loans at fair value** | **Total** |
| Corporate loans | **$ 19,372** | **$ 1,917** | **$ 21,289** |
| Loans to private wealth management clients | **12,382** | **6,788** | **19,170** |
| Loans backed by: | | | |
| Commercial real estate | **2,218** | **1,112** | **3,330** |
| Residential real estate | **1,029** | **1** | **1,030** |
| Other loans | **3,125** | **130** | **3,255** |
| **Total** | **$ 38,126** | **$ 9,948** | **$ 48,074** |

| $ in millions | As of December 2015 | | |
|---|---|---|---|
| | Loans Receivable | Loans at fair value | Total |
| Corporate loans | $ 16,903 | $ 2,614 | $ 19,517 |
| Loans to private wealth management clients | 12,823 | 6,168 | 18,991 |
| Loans backed by: | | | |
| Commercial real estate | 3,614 | 1,478 | 5,092 |
| Residential real estate | 1,325 | 43 | 1,368 |
| Other loans | 3,398 | 51 | 3,449 |
| Total | $ 38,063 | $ 10,354 | $ 48,417 |

| $ in millions | As of December 2016 | |
|---|---|---|
| | **% of Total Portfolio** | **Average Loan size** |
| Corporate loans | **44%** | **10** |
| Loans to private wealth management clients | **40%** | **3** |
| Loans backed by commercial real estate | **7%** | **33** |
| Loans backed by residential real estate | **2%** | **38** |
| Other loans | **7%** | **N.M** |

| $ in millions | As of December 2015 | |
|---|---|---|
| | % of Total Portfolio | Average Loan size |
| Corporate loans | 40% | 16 |
| Loans to private wealth management clients | 39% | 4 |
| Loans backed by commercial real estate | 11% | 43 |
| Loans backed by residential real estate | 3% | 2 |
| Other loans | 7% | 216 |

In the tables above:

- Loans receivable include loans held for investment and held for sale. See Note 8 and 9 to the consolidated financial statements for further information on loans at fair value and loans receivable.
- Loans receivable are gross of allowance for loan losses of $(219) million and $(189) million for December 2016 and December 2015, respectively.
- Corporate loans primarily had maturities between one and five years as of both December 2016 and December 2015.
- Other loans primarily relates to warehouse financing for consumer loans and also include unsecured loans to individuals made through Marcus.
- As of December 2016, 39% of loans to private wealth management clients were demand loans and the remaining were loans backed by residential real estate maturities between 27 to 30 years or either term loans/revolving credit lines with maturities between one to two years. As of December 2015, 40% of these loans were demand loans and the remaining were loans backed by residential real estate with maturities between 27 to 30 years or term loans/revolving credit lines with maturities between one to three years.
- Average loan size of loans backed by residential real estate was $38 million and $2 million as of December 2016 and December 2015, respectively, substantially all of which relates to warehouse loans. Excluding warehouse loans, the average size of loans backed by residential real estate was less than $1 million as of both December 2016 and December 2015.
- As of December 2016 and December 2015, the majority of corporate loans and loans to private wealth management clients carried a floating interest rate.