GOLDMAN SACHS BANK USA AND SUBSIDIARIES

Unaudited Quarterly Report
for the period ended June 30, 2018

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PART I. Financial Statements and Supplementary Data (Unaudited)

Consolidated Statements of Earnings
(Unaudited)

$ in millions	Three Months Ended June 2018	Three Months Ended June 2017	Six Months Ended June 2018	Six Months Ended June 2017
Revenues				
Interest income	**$ 1,391**	$ 883	**$ 2,599**	$ 1,671
Interest expense	**716**	412	**1,279**	828
Net interest income	**675**	471	**1,320**	843
Gains and losses from financial instruments, net	**520**	487	**1,117**	977
Other revenues	**43**	35	**91**	66
Provision for losses on loans and lending commitments	**(97)**	(67)	**(157)**	(97)
Total non-interest revenues	**466**	455	**1,051**	946
Net revenues, including net interest income	**1,141**	926	**2,371**	1,789
Operating expenses				
Compensation and benefits	**186**	74	**311**	163
Service charges	**107**	94	**209**	200
Market development	**58**	32	**115**	57
Professional fees	**26**	30	**57**	54
Brokerage, clearing, exchange and distribution fees	**25**	26	**52**	50
Other expenses	**135**	76	**265**	151
Total operating expenses	**537**	332	**1,009**	675
Pre-tax earnings	**604**	594	**1,362**	1,114
Provision for taxes	**133**	207	**316**	393
Net earnings	**$ 471**	$ 387	**$ 1,046**	$ 721

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

Consolidated Statements of Comprehensive Income (Unaudited)

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Net earnings	**$ 471**	$ 387	**$ 1,046**	$ 721
Other comprehensive income/(loss) adjustments, net of tax:				
Debt valuation adjustment	**20**	(4)	**13**	–
Available-for-sale securities	**(11)**	1	**(36)**	1
Other comprehensive income/(loss)	**9**	(3)	**(23)**	1
Comprehensive income	**$ 480**	$ 384	**$ 1,023**	$ 722

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

GOLDMAN SACHS BANK USA AND SUBSIDIARIES

Consolidated Statements of Financial Condition (Unaudited)

	As of	
	June	December
$ in millions, except par value	**2018**	2017
Assets		
Cash	**$ 49,702**	$ 51,528
Collateralized agreements:		
Securities purchased under agreements to resell (includes **$22,415** and $17,918 at fair value)	**22,560**	18,320
Receivables:		
Loans receivable	**60,340**	50,849
Customers and counterparties, brokers, dealers and clearing organizations	**8,824**	8,318
Financial instruments owned (at fair value and includes **$3,664** and $814 pledged as collateral)	**34,558**	34,334
Other assets	**1,482**	1,411
Total assets	**$ 177,466**	$ 164,760
Liabilities and shareholder's equity		
Deposits (includes **$4,543** and $4,428 at fair value)	**$ 127,976**	$ 115,894
Collateralized financings:		
Securities sold under agreements to repurchase (at fair value)	**782**	56
Other secured financings (includes **$1,433** and $3,395 at fair value)	**1,552**	3,502
Payables to customers and counterparties, brokers, dealers and clearing organizations	**5,898**	3,593
Financial instruments sold, but not yet purchased (at fair value)	**6,928**	10,297
Unsecured borrowings (includes **$173** and $186 at fair value)	**5,455**	4,219
Other liabilities	**2,306**	1,653
Total liabilities	**150,897**	139,214
Commitments, contingencies and guarantees		
Shareholder's equity		
Shareholder's equity (includes common stock, $100 par value; 80,000,000 shares authorized, issued and outstanding)	**26,569**	25,546
Total liabilities and shareholder's equity	**$ 177,466**	$ 164,760

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

GOLDMAN SACHS BANK USA AND SUBSIDIARIES

Consolidated Statements of Changes in Shareholder's Equity (Unaudited)

$ in millions	**Six Months Ended June 2018**	Year Ended December 2017
Shareholder's equity		
Beginning balance	**$ 25,546**	$ 24,611
Net earnings	**1,046**	1,414
Capital contribution from The Goldman Sachs Group, Inc.	**–**	37
Dividend paid to The Goldman Sachs Group, Inc.	**–**	(500)
Other comprehensive loss	**(23)**	(16)
Ending balance	**$ 26,569**	$ 25,546

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

Consolidated Statements of Cash Flows (Unaudited)

$ in millions	Six Months Ended June 2018	2017
Cash flows from operating activities		
Net earnings	**$ 1,046**	$ 721
Adjustments to reconcile net earnings to net cash used for operating activities:		
Depreciation and amortization	**14**	10
Deferred income taxes	**12**	(37)
Share-based compensation	**12**	14
Provision for losses on loans and lending commitments	**157**	97
Changes in operating assets and liabilities:		
Loans held for sale	**(2,508)**	(729)
Receivables and payables (excluding loans receivable), net	**1,799**	(2,571)
Collateralized transactions (excluding other secured financings), net	**(3,514)**	(12,519)
Financial instruments owned (excluding available-for-sale securities)	**(678)**	(2,919)
Financial instruments sold, but not yet purchased	**(3,369)**	(1,708)
Other, net	**429**	222
Net cash used for operating activities	**(6,600)**	(19,419)
Cash flows from investing activities		
Net cash used for business acquisitions	**(81)**	–
Loans receivable, net (excluding loans held for sale)	**(6,836)**	(2,696)
Purchase of available-for-sale securities	**–**	(246)
Proceeds from sales and paydowns of available-for-sale securities	**223**	–
Net cash used for investing activities	**(6,694)**	(2,942)
Cash flows from financing activities		
Deposits, net	**12,240**	(9,001)
Unsecured short-term borrowings, net	**(2,057)**	1
Repayment of other secured financings (short-term)	**(1,465)**	–
Repayment of other secured financings (long-term), including the current portion	**(500)**	(503)
Proceeds from issuance of unsecured borrowings (long-term)	**3,249**	–
Derivative contracts with a financing element, net	**1**	2
Dividends paid to The Goldman Sachs Group, Inc.	**–**	(500)
Net cash provided by/(used for) financing activities	**11,468**	(10,001)
Net decrease in cash	**(1,826)**	(32,362)
Cash, beginning balance	**51,528**	74,668
Cash, ending balance	**$ 49,702**	$ 42,306

SUPPLEMENTAL DISCLOSURES:

Cash payments for interest were $1.14 billion and $812 million during the six months ended June 2018 and June 2017, respectively. There were no cash payments for income taxes, net of refunds, for both the six months ended June 2018 and June 2017.

Non-cash activities during the six months ended June 2018:

- The Bank received $385 million of loans held for investment in connection with the securitization of financial instruments owned and held for sale loans.

Non-cash activities during the six months ended June 2017:

- The Bank received $78 million of loans held for investment in connection with the securitization of financial instruments owned.

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 (FRB), 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 as a swap dealer with the U.S. Commodity Futures Trading Commission (CFTC). The Bank is also 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 FRB.

The Bank's primary activities include lending, deposit taking and engaging in derivatives transactions. The Bank is a lender to private wealth management (PWM) clients, institutional and corporate clients and directly to retail clients through its digital platforms, *Marcus: by Goldman Sachs* (Marcus) and *Goldman Sachs Private Bank Select* (GS Select). In connection with Marcus, in April 2018 the Bank acquired Clarity Money, a personal finance management app that expands the Bank's digital platform for retail clients. The Bank accepts deposits from PWM clients, retail clients through Marcus and through deposit sweep programs, and the Bank issues brokered certificates of deposit. The Bank also enters into interest rate, credit, currency, commodity and equity derivatives and certain related products for the purpose of market making and risk management.

The following describes the activities that are conducted in the Bank's primary operating subsidiaries:

Goldman Sachs Mitsui Marine Derivative Products, L.P. (MMDP), a Delaware limited partnership, is owned 50% by an external party, Mitsui Sumitomo Insurance Co., Ltd. (Mitsui Sumitomo). MMDP 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 Mitsui Sumitomo.

Goldman Sachs Mortgage Company (GSMC), a New York limited partnership, is a wholly-owned subsidiary of the Bank. GSMC originates commercial mortgage loans and purchases commercial and residential mortgage loans and other consumer loan assets for securitization and market making.

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.

These consolidated financial statements are unaudited and should be read in conjunction with the audited consolidated financial statements included in the Bank's Annual Report for the year ended December 31, 2017. References to the "2017 Annual Report" are to the Bank's Annual Report for the year ended December 31, 2017. Certain disclosures included in the annual financial statements have been condensed or omitted from these financial statements as they are not required for interim financial statements under U.S. GAAP.

These unaudited consolidated financial statements reflect all adjustments that are, in the opinion of management, necessary for a fair statement of the results for the interim periods presented. These adjustments are of a normal, recurring nature. Interim period operating results may not be indicative of the operating results for a full year.

All references to June 2018 and June 2017 refer to the Bank's periods ended, or the dates, as the context requires, June 30, 2018 and June 30, 2017, respectively. All references to December 2017 refer to the date December 31, 2017. 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 receivable and lending commitments held for investment net of allowance for losses on loans and lending commitments, 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 14 for policies on accounting for deposits, and below and Note 12 for policies on consolidation accounting. All other significant accounting policies are either described below or included in the following footnotes:

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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 12 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, discretionary compensation accruals, income tax expense related to the Tax Cuts and Jobs Act (Tax Legislation), provisions for losses that may arise from litigation and regulatory proceedings (including governmental investigations), and provisions for losses that may arise from 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 and financial instruments sold, but not yet purchased 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 Financial Assets

Transfers of financial assets are accounted for as sales when the Bank has relinquished control over the assets transferred. For transfers of financial assets accounted for as sales, any gains or losses are recognized in gains and losses from financial instruments, net. Assets or liabilities that arise from the Bank's continuing involvement with transferred financial assets are initially recognized at fair value. For transfers of financial assets that are not accounted for as sales, the assets are generally included in financial instruments owned 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 financial assets accounted for as collateralized financings and Note 11 for further information about transfers of financial assets accounted for as sales.

Cash

Cash consists of highly liquid overnight deposits held in the ordinary course of business. As of June 2018 and December 2017, cash included $49.30 billion and $51.08 billion, respectively, of interest-bearing deposits with banks. The Bank segregates cash for regulatory and other purposes related to client activity. As of June 2018 and December 2017, $411 million and $291 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 primarily consist 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 both June 2018 and December 2017. 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 collateral received in connection with certain derivative transactions and payables related to unsettled trades. 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 both June 2018 and December 2017. 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 affiliates 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 earned from contracts with customers arising from the transfer of goods and services, guidance on accounting for certain contract costs and new disclosures.

The Bank adopted this ASU in January 2018 under a modified retrospective approach. The ASU had no impact on the Bank's results of operations upon adoption.

The Bank also prospectively changed the presentation of certain costs from a net presentation within revenues to a gross basis. Beginning in 2018, certain expenses related to loan securitizations which were included in gains and losses from financial instruments, net are presented gross as operating expenses. As a result, both net revenues and operating expenses increased by $19 million and $37 million for the three and six months ended June 2018, respectively.

The Bank's net revenues subject to this ASU were not material for both the three and six months ended June 2018.

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.

In January 2016, the Bank early adopted this ASU for the requirements related to DVA and reclassified the cumulative DVA from retained earnings to accumulated other comprehensive loss. The adoption of the remaining provisions of the ASU in January 2018 did not have a material impact on the Bank's 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 the terms of existing leases and service contracts with affiliates, which may include embedded leases. Based on the implementation efforts 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 reflects 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 Bank is currently in the process of identifying and developing the changes to the Bank's existing allowance models and processes that will be required under CECL. 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 Bank adopted this ASU in January 2018 under a retrospective approach. The impact of adoption was an increase of $78 million to net cash used for operating activities and a decrease of $78 million to net cash used for investing activities for the six months ended June 2017.

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 acquisition (or disposal) of an asset or a business.

The Bank adopted this ASU in January 2018 under a prospective approach. Adoption of the ASU did not have a material impact on the Bank's financial condition, results of operations or cash flows. The Bank expects that fewer transactions will be treated as acquisitions (or disposals) of businesses as a result of adopting this ASU.

Targeted Improvements to Accounting for Hedging Activities (ASC 815). In August 2017, the FASB issued ASU No. 2017-12, "Derivatives and Hedging (Topic 815) — Targeted Improvements to Accounting for Hedging Activities." The ASU amends certain rules for hedging relationships, expands the types of strategies that are eligible for hedge accounting treatment to more closely align the results of hedge accounting with risk management activities and amends disclosure requirements related to fair value and net investment hedges.

The Bank early adopted this ASU in January 2018 under a modified retrospective approach for hedge accounting treatment, and under a prospective approach for the amended disclosure requirements. Adoption of this ASU did not have a material impact on the Bank's financial condition, results of operations or cash flows. See Note 7 for further information.

Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (ASC 220). In February 2018, the FASB issued ASU No. 2018-02, "Income Statement — Reporting Comprehensive Income (Topic 220) — Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income." This ASU permits a reporting entity to reclassify the income tax effects of Tax Legislation on items within accumulated other comprehensive income to retained earnings.

The ASU is effective for the Bank in January 2019 under a retrospective or a modified retrospective approach. Early adoption is permitted. Since this ASU only permits reclassification within shareholders' equity, adoption of this ASU will not have a material impact on the Bank's financial condition.

Note 4.

Financial Instruments Owned and Financial Instruments Sold, But Not Yet Purchased

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

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

$ in millions	Financial Instruments Owned	Financial Instruments Sold, But Not Yet Purchased
As of June 2018		
Government and agency obligations:		
U.S.	**$ 16,478**	**$ 1,151**
Non-U.S.	**–**	**6**
Loans and securities backed by:		
Commercial real estate	**1,373**	**–**
Residential real estate	**7,442**	**3**
Corporate debt instruments	**1,738**	**589**
State and municipal obligations	**10**	**–**
Other debt obligations	**57**	**–**
Equity securities	**317**	**–**
Investments in funds at NAV	**34**	**–**
Subtotal	**27,449**	**1,749**
Derivatives	**7,109**	**5,179**
Total	**$ 34,558**	**$ 6,928**
As of December 2017		
Government and agency obligations:		
U.S.	$ 15,261	$ 4,004
Non-U.S.	–	6
Loans and securities backed by:		
Commercial real estate	952	–
Residential real estate	6,855	–
Corporate debt instruments	1,628	220
State and municipal obligations	33	–
Other debt obligations	205	–
Equity securities	293	–
Investments in funds at NAV	31	–
Subtotal	25,258	4,230
Derivatives	9,076	6,067
Total	$ 34,334	$ 10,297

In the table above:

- Corporate debt instruments includes corporate loans and debt securities.
- Substantially all of equity securities is equity investments made as part of the Bank's Community Reinvestment Act (CRA) activities.

Gains and Losses from Financial Instruments, Net

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

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Interest rates	**$ (2,051)**	$ 2,003	**$ (1,869)**	$ 2,849
Currencies	**2,418**	(1,822)	**2,446**	(2,295)
Credit	**192**	329	**548**	468
Equities	**(40)**	(23)	**(7)**	(43)
Commodities	**1**	–	**(1)**	(2)
Total	**$ 520**	$ 487	**$ 1,117**	$ 977

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 and financial instruments sold, but not yet purchased, 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 20 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, certain 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 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 the majority of the Bank's 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 at fair value (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.

	As of	
$ in millions	**June 2018**	December 2017
Total level 1 financial assets	**$ 8,016**	$ 6,964
Total level 2 financial assets	**73,187**	68,474
Total level 3 financial assets	**2,113**	1,966
Investments in funds at NAV	**34**	31
Counterparty and cash collateral netting	**(26,377)**	(25,183)
Total financial assets at fair value	**$ 56,973**	$ 52,252
Total assets	**$ 177,466**	$ 164,760
Total level 3 financial assets divided by:		
Total assets	**1.2%**	1.2%
Total financial assets at fair value	**3.7%**	3.8%
Total level 1 financial liabilities	**$ 1,151**	$ 4,004
Total level 2 financial liabilities	**21,804**	24,993
Total level 3 financial liabilities	**4,118**	3,902
Counterparty and cash collateral netting	**(13,214)**	(14,537)
Total financial liabilities at fair value	**$ 13,859**	$ 18,362
Total level 3 financial liabilities divided by total financial liabilities at fair value	**29.7%**	21.3%

In the table above:

- Counterparty netting among positions classified in the same level is included in that level.
- Counterparty and cash collateral netting represents the impact on derivatives of netting across levels of the fair value hierarchy.

Note 6.

Cash Instruments

Cash instruments include U.S. government and agency obligations, non-U.S. government and agency obligations, mortgage-backed loans and securities, corporate debt instruments, equity securities, investments in funds at net asset value (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 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 debt instruments, other debt obligations and certain equity securities.

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.

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:

- 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); and
- Transaction prices in both the underlying collateral and instruments with the same or similar underlying collateral.

Corporate Debt Instruments. Corporate debt instruments includes corporate loans and debt securities. Significant inputs for corporate debt instruments 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 the CDX (an index that tracks the performance of corporate credit);
- 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.

Equity Securities. Substantially all of equity securities is equity investments made as part of the Bank's 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 discount rates and capitalization rates.

Other Cash Instruments. Other cash instruments consists of state and municipal obligations and 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.

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.

	As of June 2018			
$ in millions	**Level 1**	**Level 2**	**Level 3**	**Total**
Assets				
U.S. government and agency obligations	**$ 8,016**	**$ 8,462**	**$ –**	**$ 16,478**
Loans and securities backed by:				
Commercial real estate	**–**	**1,288**	**85**	**1,373**
Residential real estate	**–**	**7,442**	**–**	**7,442**
Corporate debt instruments	**–**	**1,632**	**106**	**1,738**
State and municipal obligations	**–**	**–**	**10**	**10**
Other debt obligations	**–**	**57**	**–**	**57**
Equity securities	**–**	**19**	**298**	**317**
Subtotal	**$ 8,016**	**$ 18,900**	**$ 499**	**$ 27,415**
Investments in funds at NAV				**34**
Total cash instrument assets				**$ 27,449**
Liabilities				
Government and agency obligations:				
U.S.	**$ (1,151)**	**$ –**	**$ –**	**$ (1,151)**
Non-U.S.	**–**	**(6)**	**–**	**(6)**
Loans and securities backed by residential real estate	**–**	**(3)**	**–**	**(3)**
Corporate debt instruments	**–**	**(583)**	**(6)**	**(589)**
Total cash instrument liabilities	**$ (1,151)**	**$ (592)**	**$ (6)**	**$ (1,749)**

	As of December 2017			
$ in millions	Level 1	Level 2	Level 3	Total
Assets				
U.S. government and agency obligations	$ 6,935	$ 8,326	$ –	$ 15,261
Loans and securities backed by:				
Commercial real estate	–	833	119	952
Residential real estate	–	6,855	–	6,855
Corporate debt instruments	–	1,490	138	1,628
State and municipal obligations	–	–	33	33
Other debt obligations	–	205	–	205
Equity securities	–	26	267	293
Subtotal	$ 6,935	$ 17,735	$ 557	$ 25,227
Investments in funds at NAV				31
Total cash instrument assets				$ 25,258
Liabilities				
Government and agency obligations:				
U.S.	$ (4,004)	$ –	$ –	$ (4,004)
Non-U.S.	–	(6)	–	(6)
Corporate debt instruments	–	(211)	(9)	(220)
Total cash instrument liabilities	$ (4,004)	$ (217)	$ (9)	$ (4,230)

In the tables above:

- Cash instrument assets and liabilities are included in financial instruments owned and financial instruments sold, but not yet purchased, respectively.
- Cash instrument assets are shown as positive amounts and cash instrument liabilities are shown as negative amounts.
- Corporate debt instruments includes corporate loans and debt securities.

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.

	Level 3 Assets and Range of Significant Unobservable Inputs (Weighted Average) as of	
$ in millions	**June 2018**	December 2017
Loans and securities backed by commercial real estate		
Level 3 assets	**$85**	$119
Yield	**5.2% to 10.8% (9.0%)**	4.6% to 10.2% (8.7%)
Corporate debt instruments		
Level 3 assets	**$106**	$138
Yield	**4.3% to 6.1% (5.0%)**	4.2% to 17.7% (5.7%)
Recovery rate	**35.0% to 70.0% (57.6%)**	N.M.
Duration (years)	**1.7 to 5.1 (3.1)**	0.7 to 1.5 (1.1)
Equity securities		
Level 3 assets	**$298**	$267
Discount rate/yield	**6.1% to 17.0% (15.3%)**	6.7% to 17.7% (15.3%)
Capitalization rate	**4.8% to 6.0% (4.9%)**	4.8% to 6.5% (5.0%)
Other cash instruments		
Level 3 assets	**$10**	$33
Yield	**N.M.**	4.3% to 6.2% (5.3%)

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 debt instruments is appropriate for valuing a specific corporate debt instrument but may not be appropriate for valuing any other corporate debt instrument. 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.

- Increases in yield, discount rate, capitalization rate, or duration used in the valuation of the Bank's level 3 cash instruments would result in a lower fair value measurement, while increases 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 debt instruments and other cash instruments are valued using discounted cash flows, and equity securities are valued using market comparables and discounted cash flows.
- The fair value of any one instrument may be determined using multiple valuation techniques. For example, market comparables and discounted cash flows may be used together to determine fair value. Therefore, the level 3 balance encompasses both of these techniques.
- Significant unobservable input types which are only relevant to a single instrument, or where there is no range, are not meaningful and therefore have been excluded.

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 both the three and six months ended June 2018 and June 2017. 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.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Total cash instrument assets				
Beginning balance	**$ 553**	$ 804	**$ 557**	$ 782
Net realized gains/(losses)	**–**	3	**2**	13
Net unrealized gains/(losses)	**25**	6	**27**	18
Purchases	**39**	47	**43**	92
Sales	**(3)**	(17)	**(18)**	(12)
Settlements	**(24)**	(46)	**(40)**	(90)
Transfers into level 3	**5**	5	**9**	6
Transfers out of level 3	**(96)**	(249)	**(81)**	(256)
Ending balance	**$ 499**	$ 553	**$ 499**	$ 553
Total cash instrument liabilities				
Beginning balance	**$ (14)**	$ (24)	**$ (9)**	$ (24)
Net unrealized gains/(losses)	**–**	2	**–**	3
Purchases	**11**	16	**3**	17
Sales	**–**	(10)	**–**	(12)
Transfers into level 3	**(5)**	(2)	**(5)**	–
Transfers out of level 3	**2**	2	**5**	–
Ending balance	**$ (6)**	$ (16)	**$ (6)**	$ (16)

In the table above:

- Changes in fair value are presented for all cash instrument assets and liabilities that are classified in level 3 as of the end of the period.
- Net unrealized gains/(losses) relates to instruments that were still held at period-end.
- Purchases includes 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 classified 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 classified 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.

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

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Loans and securities backed by commercial real estate				
Beginning balance	**$ 129**	$ 162	**$ 119**	$ 171
Net realized gains/(losses)	**–**	1	**–**	3
Net unrealized gains/(losses)	**18**	1	**17**	1
Purchases	**7**	13	**7**	20
Sales	**–**	(7)	**–**	(8)
Settlements	**–**	(3)	**(2)**	(5)
Transfers out of level 3	**(69)**	(62)	**(56)**	(77)
Ending balance	**$ 85**	$ 105	**$ 85**	$ 105
Corporate debt instruments				
Beginning balance	**$ 128**	$ 314	**$ 138**	$ 305
Net realized gains/(losses)	**–**	2	**2**	9
Net unrealized gains/(losses)	**(3)**	–	**(3)**	(3)
Purchases	**22**	30	**18**	65
Sales	**(3)**	(10)	**(18)**	(4)
Settlements	**(16)**	(44)	**(15)**	(84)
Transfers into level 3	**5**	2	**9**	3
Transfers out of level 3	**(27)**	(109)	**(25)**	(106)
Ending balance	**$ 106**	$ 185	**$ 106**	$ 185
Equity securities				
Beginning balance	**$ 278**	$ 209	**$ 267**	$ 192
Net unrealized gains/(losses)	**10**	4	**13**	19
Purchases	**10**	4	**18**	6
Transfers into level 3	**–**	3	**–**	3
Ending balance	**$ 298**	$ 220	**$ 298**	$ 220
Other cash instruments				
Beginning balance	**$ 18**	$ 119	**$ 33**	$ 114
Net realized gains/(losses)	**–**	–	**–**	1
Net unrealized gains/(losses)	**–**	1	**–**	1
Purchases	**–**	–	**–**	1
Settlements	**(8)**	1	**(23)**	(1)
Transfers out of level 3	**–**	(78)	**–**	(73)
Ending balance	**$ 10**	$ 43	**$ 10**	$ 43

Level 3 Rollforward Commentary

Three Months Ended June 2018. The net unrealized gains on level 3 cash instrument assets of $25 million for the three months ended June 2018 were reported in gains and losses from financial instruments, net.

The drivers of the net unrealized gains on level 3 cash instrument assets for the three months ended June 2018 were not material.

Transfers into level 3 during the three months ended June 2018 were not material.

Transfers out of level 3 during the three months ended June 2018 primarily reflected transfers of certain loans and securities backed by commercial real estate to level 2, principally due to yield no longer being significant to the valuation of these instruments.

Six Months Ended June 2018. The net realized and unrealized gains on level 3 cash instrument assets of $29 million (reflecting $2 million of net realized gains and $27 million of net unrealized gains) for the six months ended June 2018 were reported in gains and losses from financial instruments, net.

The drivers of the net unrealized gains on level 3 cash instrument assets for the six months ended June 2018 were not material.

Transfers into level 3 during the six months ended June 2018 were not material.

Transfers out of level 3 during the six months ended June 2018 primarily reflected transfers of certain loans and securities backed by commercial real estate to level 2, principally due to yield no longer being significant to the valuation of these instruments.

Three Months Ended June 2017. The net realized and unrealized gains on level 3 cash instrument assets of $9 million (reflecting $3 million of net realized gains and $6 million of net unrealized gains) for the three months ended June 2017 were reported in gains and losses from financial instruments, net.

The drivers of the net unrealized gains on level 3 cash instrument assets for the three months ended June 2017 were not material.

Transfers into level 3 during the three months ended June 2017 were not material.

Transfers out of level 3 during the three months ended June 2017 primarily reflected transfers of certain corporate debt instruments and other cash instruments to level 2, principally due to certain unobservable yield and duration inputs not being significant to the valuation of these instruments.

Six Months Ended June 2017. The net realized and unrealized gains on level 3 cash instrument assets of $31 million (reflecting $13 million of net realized gains and $18 million of net unrealized gains) for the six months ended June 2017 were reported in gains and losses from financial instruments, net.

The drivers of the net unrealized gains on level 3 cash instrument assets for the six months ended June 2017 were not material.

Transfers into level 3 during the six months ended June 2017 were not material.

Transfers out of level 3 during the six months ended June 2017 reflected transfers of certain corporate debt instruments, certain loans and securities backed by commercial real estate, and certain other cash instruments to level 2, principally due to certain unobservable yield and duration inputs not being significant to the valuation of these instruments.

Available-for-Sale Securities

The table below presents details about cash instruments that are accounted for as available-for-sale.

$ in millions	Amortized Cost	Fair Value	Weighted Average Yield
As of June 2018			
Less than 5 years	**$ 2,513**	**$ 2,433**	**1.85%**
Total U.S. government obligations	**2,513**	**2,433**	**1.85%**
Greater than 5 years	**10**	**10**	**5.03%**
Total other available-for sale securities	**10**	**10**	**5.03%**
Total available-for-sale securities	**$ 2,523**	**$ 2,443**	**1.86%**
As of December 2017			
Less than 5 years	$ 2,511	$ 2,477	1.85%
Total U.S. government obligations	2,511	2,477	1.85%
Greater than 5 years	233	235	4.72%
Total other available-for sale securities	233	235	4.72%
Total available-for-sale securities	$ 2,744	$ 2,712	2.10%

In the table above:

- U.S. government obligations were classified in level 1 of the fair value hierarchy as of both June 2018 and December 2017.
- Other available-for-sale securities includes corporate debt securities that were classified in level 2 of the fair value hierarchy as of June 2018. As of December 2017, other available-for-sale securities includes corporate debt securities, other debt obligations and securities backed by commercial real estate that were classified in level 2 of the fair value hierarchy.
- The gross unrealized losses included in accumulated other comprehensive loss were $80 million as of June 2018 and related to U.S. government obligations, which were in a continuous unrealized loss position for less than a year. Such losses were not material as of December 2017.

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 and borrowings.

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 and financial instruments sold, but not yet purchased, respectively. Realized and unrealized gains and losses on derivatives not designated as hedges are included in gains and losses from financial instruments, net in Note 4.

The tables below present the gross fair value and the notional amounts 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 June 2018		As of December 2017	
$ in millions	**Derivative Assets**	**Derivative Liabilities**	Derivative Assets	Derivative Liabilities
Not accounted for as hedges				
Exchange-traded	**$ 994**	**$ 1,023**	$ 533	$ 588
OTC-cleared	**38**	**15**	337	11
Bilateral OTC	**433,310**	**423,090**	458,593	447,320
Total interest rates	**434,342**	**424,128**	459,463	447,919
Currencies – bilateral OTC	**61,033**	**56,722**	46,971	45,539
Credit – bilateral OTC	**3,283**	**3,342**	3,155	3,147
Equities – bilateral OTC	**1,451**	**825**	1,654	1,002
Commodities – bilateral OTC	**184**	**182**	190	188
Subtotal	**500,293**	**485,199**	511,433	497,795
Accounted for as hedges				
Bilateral OTC	**2**	**3**	18	1
Total interest rates	**2**	**3**	18	1
Total gross fair value	**$ 500,295**	**$ 485,202**	$ 511,451	$ 497,796
Offset in consolidated statements of financial condition				
Bilateral OTC	**$ (467,152)**	**$ (467,152)**	$ (477,847)	$ (477,847)
Counterparty netting	**(467,152)**	**(467,152)**	(477,847)	(477,847)
Bilateral OTC	**(26,034)**	**(12,871)**	(24,528)	(13,882)
Cash collateral netting	**(26,034)**	**(12,871)**	(24,528)	(13,882)
Total amounts offset	**$ (493,186)**	**$ (480,023)**	$ (502,375)	$ (491,729)
Included in consolidated statements of financial condition				
Exchange-traded	**$ 994**	**$ 1,023**	$ 533	$ 588
OTC-cleared	**38**	**15**	337	11
Bilateral OTC	**6,077**	**4,141**	8,206	5,468
Total	**$ 7,109**	**$ 5,179**	$ 9,076	$ 6,067
Not offset in consolidated statements of financial condition				
Cash collateral	**$ (66)**	**$ (461)**	$ (99)	$ (196)
Securities collateral	**(618)**	**(503)**	(944)	(609)
Total	**$ 6,425**	**$ 4,215**	$ 8,033	$ 5,262

	Notional Amounts as of	
$ in millions	**June 2018**	December 2017
Not accounted for as hedges		
Exchange-traded	**$ 10,883,268**	$ 9,130,538
OTC-cleared	**8,955,616**	7,324,681
Bilateral OTC	**29,320,144**	22,290,511
Total interest rates	**49,159,028**	38,745,730
Currencies – bilateral OTC	**2,966,750**	2,401,770
Credit – bilateral OTC	**156,736**	148,354
Equities – bilateral OTC	**44,921**	38,865
Commodities – bilateral OTC	**5,839**	7,660
Subtotal	**52,333,274**	41,342,379
Accounted for as hedges		
OTC-cleared	**10,633**	9,633
Bilateral OTC	**731**	731
Total interest rates	**11,364**	10,364
Total notional amounts	**$ 52,344,638**	$ 41,352,743

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 included derivative assets and derivative liabilities of $1.42 billion and $1.30 billion, respectively, as of June 2018, and derivative assets and derivative liabilities of $2.73 billion and $1.47 billion, respectively, as of December 2017, 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.

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.

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 level 3 interest rate and currency derivatives, significant unobservable inputs include correlations of certain currencies and interest rates (e.g., the correlation between Euro inflation and Euro interest rates). In addition, for level 3 interest rate derivatives, significant unobservable inputs include 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 classified 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 June 2018			
$ in millions	**Level 1**	**Level 2**	**Level 3**	**Total**
Assets				
Interest rates	**$ –**	**$ 434,016**	**$ 328**	**$ 434,344**
Currencies	**–**	**60,538**	**495**	**61,033**
Credit	**–**	**2,179**	**1,104**	**3,283**
Equities	**–**	**906**	**545**	**1,451**
Commodities	**–**	**173**	**11**	**184**
Gross fair value	**–**	**497,812**	**2,483**	**500,295**
Counterparty netting in levels	**–**	**(465,940)**	**(869)**	**(466,809)**
Subtotal	**$ –**	**$ 31,872**	**$ 1,614**	**$ 33,486**
Cross-level counterparty netting				**(343)**
Cash collateral netting				**(26,034)**
Net fair value				**$ 7,109**
Liabilities				
Interest rates	**$ –**	**$ (423,497)**	**$ (634)**	**$ (424,131)**
Currencies	**–**	**(56,578)**	**(144)**	**(56,722)**
Credit	**–**	**(2,435)**	**(907)**	**(3,342)**
Equities	**–**	**(809)**	**(16)**	**(825)**
Commodities	**–**	**(173)**	**(9)**	**(182)**
Gross fair value	**–**	**(483,492)**	**(1,710)**	**(485,202)**
Counterparty netting in levels	**–**	**465,940**	**869**	**466,809**
Subtotal	**$ –**	**$ (17,552)**	**$ (841)**	**$ (18,393)**
Cross-level counterparty netting				**343**
Cash collateral netting				**12,871**
Net fair value				**$ (5,179)**

	As of December 2017			
$ in millions	Level 1	Level 2	Level 3	Total
Assets				
Interest rates	$ 29	$ 459,178	$ 274	$ 459,481
Currencies	–	46,679	292	46,971
Credit	–	2,258	897	3,155
Equities	–	1,088	566	1,654
Commodities	–	183	7	190
Gross fair value	29	509,386	2,036	511,451
Counterparty netting in levels	–	(476,565)	(627)	(477,192)
Subtotal	$ 29	$ 32,821	$ 1,409	$ 34,259
Cross-level counterparty netting				(655)
Cash collateral netting				(24,528)
Net fair value				$ 9,076
Liabilities				
Interest rates	$ –	$ (447,166)	$ (754)	$ (447,920)
Currencies	–	(45,414)	(125)	(45,539)
Credit	–	(2,486)	(661)	(3,147)
Equities	–	(995)	(7)	(1,002)
Commodities	–	(183)	(5)	(188)
Gross fair value	–	(496,244)	(1,552)	(497,796)
Counterparty netting in levels	–	476,565	627	477,192
Subtotal	$ –	$ (19,679)	$ (925)	$ (20,604)
Cross-level counterparty netting				655
Cash collateral netting				13,882
Net fair value				$ (6,067)

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 in levels. Where the counterparty netting is across levels, the netting is included 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	
$ in millions	**June 2018**	December 2017
Interest rates, net	**$(306)**	$(480)
Correlation	**(10)% to 86% (72%/81%)**	(10)% to 86% (63%/78%)
Volatility (bps)	**31 to 150 (80/55)**	31 to 150 (84/57)
Currencies, net	**$351**	$167
Correlation	**39% to 70% (52%/57%)**	43% to 72% (55%/59%)
Credit, net	**$197**	$236
Credit spreads (bps)	**1 to 509 (141/114)**	1 to 633 (136/106)
Equities, net	**$529**	$559
Correlation	**26% to 94% (50%/44%)**	20% to 77% (37%/36%)

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 spreads 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 type 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 product type (e.g., foreign exchange rates) and across product types (e.g., correlation of an interest rate and a currency), as well as across regions. Generally, cross-product type 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.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Total level 3 derivatives				
Beginning balance	**$ 672**	$ 913	**$ 484**	$ 1,011
Net realized gains/(losses)	**(42)**	(51)	**(82)**	(131)
Net unrealized gains/(losses)	**(23)**	(129)	**120**	(157)
Purchases	**21**	22	**52**	50
Sales	**(20)**	(1)	**(21)**	(4)
Settlements	**159**	28	**212**	61
Transfers into level 3	**6**	11	**(1)**	(9)
Transfers out of level 3	**–**	(36)	**9**	(64)
Ending balance	**$ 773**	$ 757	**$ 773**	$ 757

In the table above:

- Changes in fair value are presented for all derivative assets and liabilities that are classified in level 3 as of the end of the period.
- Net unrealized gains/(losses) relates to instruments that were still held at period-end.
- If a derivative was transferred into level 3 during a reporting period, its entire gain or loss for the period is classified 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 in level 3.
- Gains or losses that have been classified 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.

The table below disaggregates, by major product type, the information for level 3 derivatives included in the summary table above.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Interest rates, net				
Beginning balance	**$ (435)**	$ (361)	**$ (480)**	$ (453)
Net realized gains/(losses)	**(21)**	(15)	**(40)**	(38)
Net unrealized gains/(losses)	**3**	(55)	**45**	35
Purchases	**3**	1	**8**	4
Sales	**–**	(1)	**(1)**	(4)
Settlements	**140**	16	**158**	73
Transfers into level 3	**4**	7	**(7)**	(10)
Transfers out of level 3	**–**	(40)	**11**	(55)
Ending balance	**$ (306)**	$ (448)	**$ (306)**	$ (448)
Currencies, net				
Beginning balance	**$ 355**	$ 431	**$ 167**	$ 466
Net realized gains/(losses)	**(14)**	(14)	**(29)**	(48)
Net unrealized gains/(losses)	**–**	(68)	**163**	(103)
Purchases	**1**	5	**8**	11
Sales	**–**	–	**(1)**	–
Settlements	**9**	8	**43**	37
Transfers into level 3	**–**	2	**–**	2
Transfers out of level 3	**–**	–	**–**	(1)
Ending balance	**$ 351**	$ 364	**$ 351**	$ 364
Credit, net				
Beginning balance	**$ 213**	$ 398	**$ 236**	$ 578
Net realized gains/(losses)	**(9)**	(8)	**(17)**	(22)
Net unrealized gains/(losses)	**(3)**	(66)	**(32)**	(185)
Purchases	**–**	–	**1**	2
Sales	**(18)**	–	**(16)**	–
Settlements	**12**	8	**19**	(34)
Transfers into level 3	**2**	2	**6**	(1)
Transfers out of level 3	**–**	4	**–**	–
Ending balance	**$ 197**	$ 338	**$ 197**	$ 338
Equities, net				
Beginning balance	**$ 538**	$ 443	**$ 559**	$ 418
Net realized gains/(losses)	**2**	(14)	**4**	(23)
Net unrealized gains/(losses)	**(23)**	60	**(56)**	96
Purchases	**17**	16	**35**	33
Sales	**(2)**	–	**(3)**	–
Settlements	**(3)**	(3)	**(8)**	(14)
Transfers out of level 3	**–**	–	**(2)**	(8)
Ending balance	**$ 529**	$ 502	**$ 529**	$ 502
Commodities, net				
Beginning balance	**$ 1**	$ 2	**$ 2**	$ 2
Settlements	**1**	(1)	**–**	(1)
Ending balance	**$ 2**	$ 1	**$ 2**	$ 1

Level 3 Rollforward Commentary

Three Months Ended June 2018. The net realized and unrealized losses on level 3 derivatives of $65 million (reflecting $42 million of net realized losses and $23 million of net unrealized losses) for the three months ended June 2018 were reported in gains and losses from financial instruments, net.

The drivers of the net unrealized losses on level 3 derivatives for the three months ended June 2018 were not material.

Transfers into and out of level 3 derivatives during the three months ended June 2018 were not material.

Six Months Ended June 2018. The net realized and unrealized gains on level 3 derivatives of $38 million (reflecting $82 million of net realized losses and $120 million of net unrealized gains) for the six months ended June 2018 were reported in gains and losses from financial instruments, net.

The net unrealized gains on level 3 derivatives for the six months ended June 2018 were primarily attributable to gains on certain currency derivatives, primarily reflecting the impact of changes in interest rates and foreign exchange rates.

Transfers into and out of level 3 derivatives during the six months ended June 2018 were not material.

Three Months Ended June 2017. The net realized and unrealized losses on level 3 derivatives of $180 million (reflecting $51 million of net realized losses and $129 million of net unrealized losses) for the three months ended June 2017 were reported in gains and losses from financial instruments, net.

The net unrealized losses on level 3 derivatives for the three months ended June 2017 were primarily attributable to losses on certain currency derivatives, reflecting the impact of changes in interest rates and foreign exchange rates and losses on certain credit derivatives, reflecting the impact of tighter credit spreads.

Transfers into and out of level 3 derivatives during the three months ended June 2017 were not material.

Six Months Ended June 2017. The net realized and unrealized losses on level 3 derivatives of $288 million (reflecting $131 million of net realized losses and $157 million of net unrealized losses) were reported in gains and losses from financial instruments, net.

The net unrealized losses on level 3 derivatives for the six months ended June 2017 were primarily attributable to losses on certain credit derivatives, reflecting the impact of tighter credit spreads, and losses on certain currency derivatives, reflecting the impact of changes in interest rates and foreign exchange rates, partially offset by gains on certain equity derivatives, reflecting the impact of changes in the prices of underlying indices.

Transfers into level 3 derivatives during the six months ended June 2017 were not material.

Transfers out of level 3 derivatives during the six months ended June 2017 primarily reflected transfers of certain interest rate derivative assets to level 2, primarily due to increased transparency of unobservable interest rate inputs used to value 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 generally 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 June 2018, written and purchased credit derivatives had total gross notional amounts of $69.96 billion and $86.77 billion, respectively, for total net notional purchased protection of $16.81 billion. As of December 2017, written and purchased credit derivatives had total gross notional amounts of $67.20 billion and $81.15 billion, respectively, for total net notional purchased protection of $13.95 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 June 2018					
Maximum Payout/Notional Amount of Written Credit Derivatives by Tenor					
Less than 1 year	**$ 13,119**	**$ 524**	**$ 199**	**$ 289**	**$ 14,131**
1 – 5 years	**39,526**	**2,824**	**1,600**	**1,363**	**45,313**
Greater than 5 years	**10,205**	**292**	**22**	**1**	**10,520**
Total	**$ 62,850**	**$ 3,640**	**$ 1,821**	**$ 1,653**	**$ 69,964**
Maximum Payout/Notional Amount of Purchased Credit Derivatives					
Offsetting	**$ 48,779**	**$ 3,154**	**$ 1,715**	**$ 1,438**	**$ 55,086**
Other	**28,279**	**2,977**	**161**	**269**	**31,686**
Fair Value of Written Credit Derivatives					
Asset	**$ 1,748**	**$ 150**	**$ 88**	**$ 48**	**$ 2,034**
Liability	**461**	**49**	**35**	**253**	**798**
Net asset/(liability)	**$ 1,287**	**$ 101**	**$ 53**	**$ (205)**	**$ 1,236**
As of December 2017					
Maximum Payout/Notional Amount of Written Credit Derivatives by Tenor					
Less than 1 year	$ 17,331	$ 424	$ 131	$ 394	$ 18,280
1 – 5 years	33,988	1,744	1,458	1,079	38,269
Greater than 5 years	9,940	421	170	123	10,654
Total	$ 61,259	$ 2,589	$ 1,759	$ 1,596	$ 67,203
Maximum Payout/Notional Amount of Purchased Credit Derivatives					
Offsetting	$ 47,440	$ 1,935	$ 1,460	$ 1,284	$ 52,119
Other	26,833	1,358	363	478	29,032
Fair Value of Written Credit Derivatives					
Asset	$ 1,826	$ 120	$ 88	$ 59	$ 2,093
Liability	253	41	67	249	610
Net asset/(liability)	$ 1,573	$ 79	$ 21	$ (190)	$ 1,483

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 remaining contractual maturity.
- 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.
- 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 $70 million and $10 million for the three months ended June 2018 and June 2017, respectively, and $128 million and $27 million for the six months ended June 2018 and June 2017, 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 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	
	June	December
$ in millions	**2018**	2017
Net derivative liabilities under bilateral agreements	**$ 5,471**	$ 5,140
Collateral posted	**$ 5,085**	$ 4,013
Additional collateral or termination payments:		
One-notch downgrade	**$ 118**	$ 174
Two-notch downgrade	**$ 238**	$ 304

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 and certain fixed-rate unsecured long-term borrowings.

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 assess 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 of certain fixed-rate certificates of deposit and certain fixed-rate unsecured long-term borrowings. 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 (hedging adjustment) and is also 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 20 for further information about interest income and interest expense.

The table below presents the gains/(losses) from interest rate derivatives accounted for as hedges and the related hedged deposits and borrowings, and the Bank's total interest expense.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Interest rate hedges	**$ (50)**	$ 55	**$ (215)**	$ (3)
Hedged deposits and borrowings	**$ 41**	$ (61)	**$ 202**	$ (11)
Interest expense	**$ 716**	$ 412	**$ 1,279**	$ 828

In the table above, hedge ineffectiveness for the three and six months ended June 2017 was $(6) million and $(14) million, respectively.

The table below presents the carrying amount of the hedged items that are currently designated in a hedging relationship and the related cumulative hedging adjustment (increase/(decrease)) from current and prior hedging relationships included in such carrying amounts.

	As of June 2018	
$ in millions	**Carrying Amount**	**Cumulative Hedging Adjustment**
Deposits	**$ 9,846**	**$ (304)**
Unsecured long-term borrowings	**$ 999**	**$ –**

In the table above, there were no hedging adjustments from prior hedging relationships that were de-designated.

In addition, as of June 2018, cumulative hedging adjustments for items no longer designated in a hedging relationship were not material.

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 and financial instruments sold, but not yet purchased, the Bank accounts for certain of its other financial assets and financial liabilities at fair value, substantially all of which are accounted for at fair value 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 nonfinancial assets (e.g., physical commodities). The Bank has not elected to 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 substantially all resale agreements;
- Substantially all other secured financings, including advances from the Federal Home Loan Bank of New York (FHLB);
- 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 at fair value, substantially all of which are accounted for at fair value under the fair value option.

$ in millions	Level 1	Level 2	Level 3	Total
As of June 2018				
Assets				
Securities purchased under agreements to resell	**$ –**	**$ 22,415**	**$ –**	**$ 22,415**
Total	**$ –**	**$ 22,415**	**$ –**	**$ 22,415**
Liabilities				
Deposits	**$ –**	**$ (1,272)**	**$ (3,271)**	**$ (4,543)**
Securities sold under agreements to repurchase	**–**	**(782)**	**–**	**(782)**
Other secured financings	**–**	**(1,433)**	**–**	**(1,433)**
Unsecured borrowings	**–**	**(173)**	**–**	**(173)**
Total	**$ –**	**$ (3,660)**	**$ (3,271)**	**$ (6,931)**
As of December 2017				
Assets				
Securities purchased under agreements to resell	$ –	$ 17,918	$ –	$ 17,918
Total	$ –	$ 17,918	$ –	$ 17,918
Liabilities				
Deposits	$ –	$ (1,460)	$ (2,968)	$ (4,428)
Securities sold under agreements to repurchase	–	(56)	–	(56)
Other secured financings	–	(3,395)	–	(3,395)
Unsecured borrowings	–	(186)	–	(186)
Total	$ –	$ (5,097)	$ (2,968)	$ (8,065)

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 in 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 June 2018 and December 2017, the Bank had no level 3 resale or repurchase agreements. See Note 10 for further information about collateralized agreements and 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 and Note 14 for further information about deposits.

The Bank's deposits that are classified 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.

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 June 2018 and December 2017, the Bank had no level 3 other secured financings.

Unsecured Borrowings. The significant inputs to the valuation of unsecured borrowings at fair value are the amount and timing of expected future cash flows and interest rates. 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. As of both June 2018 and December 2017, the Bank had no level 3 unsecured borrowings. See Note 7 for further information about derivatives and Note 15 for further information about unsecured borrowings.

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 during both the three and six months ended June 2018 and June 2017. 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 other financial liabilities accounted for at fair value.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Deposits				
Beginning balance	**$ (3,146)**	$ (3,348)	**$ (2,968)**	$ (3,173)
Net realized gains/(losses)	**(3)**	(4)	**(6)**	(5)
Net unrealized gains/(losses)	**40**	(76)	**88**	(103)
Issuances	**(229)**	(172)	**(445)**	(345)
Settlements	**42**	12	**51**	38
Transfers into level 3	**–**	–	**(16)**	–
Transfers out of level 3	**25**	9	**25**	9
Ending balance	**$ (3,271)**	$ (3,579)	**$ (3,271)**	$ (3,579)

In the table above:

- Changes in fair value are presented for all other financial liabilities that are classified in level 3 as of the end of the period.
- Net unrealized gains/(losses) relates 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 classified 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 cash instruments and derivatives. Accordingly, gains or losses that are classified in level 3 can be partially offset by gains or losses attributable to level 1, 2 or 3 cash instruments or derivatives. As a result, gains or losses included in the level 3 rollforward above do not necessarily represent the overall impact on the Bank's results of operations, liquidity or capital resources.

Level 3 Rollforward Commentary

Three Months Ended June 2018. The net realized and unrealized gains on level 3 other financial liabilities of $37 million (reflecting $3 million of net realized losses and $40 million of net unrealized gains) for the three months ended June 2018 included gains of $15 million reported in gains and losses from financial instruments, net in the consolidated statements of earnings, and gains of $22 million reported in debt valuation adjustment in the consolidated statements of comprehensive income.

The drivers of the net unrealized gains on level 3 other financial liabilities for the three months ended June 2018 were not material.

There were no transfers into level 3 other financial liabilities during the three months ended June 2018. Transfers out of level 3 other financial liabilities during the three months ended June 2018 were not material.

Six Months Ended June 2018. The net realized and unrealized gains on level 3 other financial liabilities of $82 million (reflecting $6 million of net realized losses and $88 million of net unrealized gains) for the six months ended June 2018 included gains of $68 million reported in gains and losses from financial instruments, net in the consolidated statements of earnings, and gains of $14 million reported in debt valuation adjustment in the consolidated statements of comprehensive income.

The net unrealized gains on level 3 other financial liabilities for the six months ended June 2018 primarily reflected gains on certain hybrid financial instruments included in deposits, principally due to the impact of a decrease in the market value of the underlying assets.

Transfers into and out of level 3 other financial liabilities during the six months ended June 2018 were not material.

Three Months Ended June 2017. The net realized and unrealized losses on level 3 other financial liabilities of $80 million (reflecting $4 million of net realized losses and $76 million of net unrealized losses) for the three months ended June 2017 included losses of approximately $74 million reported in gains and losses from financial instruments, net in the consolidated statements of earnings, and losses of $6 million reported in debt valuation adjustment in the consolidated statements of comprehensive income.

The net unrealized losses on level 3 other financial liabilities for the three months ended June 2017 primarily reflected 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 level 3 other financial liabilities during the three months ended June 2017. Transfers out of level 3 other financial liabilities during the three months ended June 2017 were not material.

Six Months Ended June 2017. The net realized and unrealized losses on level 3 other financial liabilities of $108 million (reflecting $5 million of net realized losses and $103 million of net unrealized losses) for the six months ended June 2017 were reported in gains and losses from financial instruments, net in the consolidated statements of earnings.

The net unrealized losses on level 3 other financial liabilities for the six months ended June 2017 primarily reflected 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 level 3 other financial liabilities during the six months ended June 2017. Transfers out of level 3 other financial liabilities during the six months ended June 2017 were not material.

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.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Deposits	**$ 9**	$ (78)	**$ 81**	$ (115)
Other	**5**	17	**13**	(5)
Total	**$ 14**	$ (61)	**$ 94**	$ (120)

In the table above:

- Gains/(losses) are included in gains and losses from financial instruments, net.

- Gains/(losses) exclude contractual interest, which is included in interest income and interest expense, for all instruments other than hybrid financial instruments. See Note 20 for further information about interest income and interest expense.
- Gains/(losses) included in deposits are related to the embedded derivative component of hybrid financial instruments. 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.
- 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, financial instruments sold, but not yet purchased and the syndication of loans and lending commitments.

Loans at Fair Value Under the Fair Value Option

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 to PWM clients, which are primarily secured by securities, commercial and 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. 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.

	As of	
	June	December
$ in millions	**2018**	2017
Corporate loans	**$ 1,536**	$ 1,287
Loans to PWM clients	**6,897**	7,081
Loans backed by commercial real estate	**1,319**	872
Loans backed by residential real estate	**742**	–
Other loans	**56**	106
Total	**$ 10,550**	$ 9,346

In the table above:

- Loans to PWM clients included \$6.70 billion and \$6.85 billion of loans secured by residential real estate, \$142 million and \$161 million secured by investments in real or financial assets, and \$55 million and \$65 million of loans secured by commercial real estate as of June 2018 and December 2017, respectively.
- The aggregate contractual principal amount of loans for which the fair value option was elected exceeded the related fair value by \$331 million and \$149 million as of June 2018 and December 2017, respectively.
- Included in these amounts are loans in nonaccrual status (including loans more than 90 days past due) with a contractual principal balance of \$29 million and a fair value of \$10 million as of June 2018, and a contractual principal balance of \$60 million and a fair value of \$36 million as of December 2017.

Lending Commitments at Fair Value Under the Fair Value Option

The table below presents details about the contractual amount of lending commitments that are held at fair value under the fair value option.

	As of	
	June	December
$ in millions	**2018**	2017
Corporate	**$ 4,469**	$ 4,201
Other	**404**	149
Total	**$ 4,873**	$ 4,350

In the table above:

- Corporate lending commitments primarily relates to bank and bridge lending activities.
- The fair value of lending commitments were liabilities of \$3 million and \$5 million as of June 2018 and December 2017, respectively.

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 $4 million and $9 million for the three months ended June 2018 and June 2017, respectively, and $14 million and $33 million for the six months ended June 2018 and June 2017, 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 table below presents details about the net DVA gains/(losses) on such financial liabilities.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
DVA (pre-tax)	**$ 27**	$ (6)	**$ 17**	$ 1
DVA (net of tax)	**$ 20**	$ (4)	**$ 13**	$ –

In the table above:

- DVA (net of tax) is 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 both the three and six months ended June 2018 and June 2017.

Note 9.

Loans Receivable

Loans receivable consists of loans held for investment that are accounted for at amortized cost net of allowance for loan losses and loans held for sale that are accounted for at the lower of cost or fair value. 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	
$ in millions	**June 2018**	December 2017
Corporate loans	**$ 26,462**	$ 21,657
Loans to PWM clients	**15,234**	14,485
Loans backed by commercial real estate	**9,722**	6,854
Loans backed by residential real estate	**2,707**	2,769
Marcus loans	**3,120**	1,912
Other loans	**3,507**	3,526
Total loans receivable, gross	**60,752**	51,203
Allowance for loan losses	**(412)**	(354)
Total loans receivable	**$ 60,340**	$ 50,849

In the table above, loans to PWM clients included $12.99 billion and $12.12 billion of loans secured by investments in real or financial assets, $2.19 billion and $2.23 billion of loans secured by commercial real estate and $49 million and $130 million of loans secured by residential real estate as of June 2018 and December 2017, respectively.

The following is a description of the captions in the table above:

- **Corporate Loans.** Corporate loans includes 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 also includes loans originated as part of the Bank's CRA 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 PWM Clients.** Loans to PWM clients includes 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, commercial and residential real estate, or other assets.

- **Loans Backed by Commercial Real Estate.** Loans backed by commercial real estate includes 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 includes loans purchased by the Bank and loans originated as part of the Bank's CRA activities.

- **Loans Backed by Residential Real Estate.** Loans backed by residential real estate primarily includes 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 includes loans purchased by the Bank.

- **Marcus Loans.** Marcus loans represents unsecured consumer loans. Since inception, the Bank originated over $4 billion of Marcus loans.

- **Other Loans.** Other loans primarily includes loans extended to clients who warehouse assets that are directly or indirectly secured by retail loans, including auto loans, and private student loans and other assets.

Loans Held for Investment

Included in loans receivable are loans held for investment which are accounted for at amortized cost net of allowance for loan losses. The carrying value of such loans, net of allowance for loan losses was $54.93 billion and $47.76 billion as of June 2018 and December 2017, respectively. As of June 2018 and December 2017, the fair value of loans held for investment was $54.93 billion and $47.83 billion, respectively. Had these loans been carried at fair value and included in the fair value hierarchy, $29.77 billion and $26.92 billion would have been classified in level 2, and $25.16 billion and $20.91 billion would have been classified in level 3, as of June 2018 and December 2017, respectively.

Loans Held for Sale

Included in loans receivable are loans held for sale which are accounted for at the lower of cost or fair value. The carrying value of such loans was $5.41 billion and $3.09 billion as of June 2018 and December 2017, respectively. As of both June 2018 and December 2017, the carrying value of loans held for sale generally approximated fair value. Had these items been included in the fair value hierarchy, they would have been primarily classified in level 2 as of both June 2018 and December 2017.

Lending Commitments Held for Investment

The table below presents details about lending commitments that are held for investment and accounted for on an accrual basis.

	As of	
	June	December
$ in millions	**2018**	2017
Corporate	**$ 103,688**	$ 92,217
Other	**5,838**	5,017
Total	**$ 109,526**	$ 97,234

In the table above:

- Corporate lending commitments primarily relates to the Bank's relationship lending activities.

- Other lending commitments primarily relates to lending commitments extended by the Bank to clients who warehouse assets backed by real estate and other assets.

- The carrying value of lending commitments were liabilities of $305 million (including allowance for losses of $204 million) and $298 million (including allowance for losses of $193 million) as of June 2018 and December 2017, respectively.

- The estimated fair value of such lending commitments were liabilities of $2.18 billion and $1.82 billion as of June 2018 and December 2017, respectively. Had these lending commitments been carried at fair value and included in the Bank's fair value hierarchy, $775 million and $641 million would have been classified in level 2, and $1.41 billion and $1.18 billion would have been classified in level 3, as of June 2018 and December 2017, respectively.

Lending Commitments Held for Sale

The table below presents details about lending commitments that are held for sale and accounted for at the lower of cost or fair value.

	As of	
	June	December
$ in millions	**2018**	2017
Corporate	**$ 10,795**	$ 6,354
Other	**81**	614
Total	**$ 10,876**	$ 6,968

In the table above:

- Corporate lending commitments primarily relates to bank and bridge lending activities.
- Other lending commitments primarily relates to lending commitments extended to clients for the purchase of commercial real estate.
- The carrying value of lending commitments held for sale were liabilities of $120 million and $50 million as of June 2018 and December 2017, respectively. Had these lending commitments been included in the fair value hierarchy, they would have been primarily classified in level 3 as of both June 2018 and December 2017.

Credit Quality

Risk Assessment. The Bank's risk assessment process includes evaluating the credit quality of its loans receivable. For loans receivable (excluding Marcus loans) and lending commitments, 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 Bank enters into economic hedges to mitigate credit risk on certain loans receivable and corporate 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 17 for further information about these lending commitments and associated hedges.

The table below presents gross loans receivable (excluding Marcus loans of $3.12 billion and $1.91 billion as of June 2018 and December 2017, respectively) and lending commitments by the Bank's internally determined public rating agency equivalent and by regulatory risk rating.

$ in millions	Loans	Lending Commitments	Total
Credit Rating Equivalent			
As of June 2018			
Investment-grade	**$ 24,326**	**$ 82,128**	**$ 106,454**
Non-investment-grade	**33,306**	**38,274**	**71,580**
Total	**$ 57,632**	**$ 120,402**	**$ 178,034**
As of December 2017			
Investment-grade	$ 22,461	$ 73,224	$ 95,685
Non-investment-grade	26,830	30,978	57,808
Total	$ 49,291	$ 104,202	$ 153,493
Regulatory Risk Rating			
As of June 2018			
Non-criticized/pass	**$ 56,402**	**$ 117,528**	**$ 173,930**
Criticized	**1,230**	**2,874**	**4,104**
Total	**$ 57,632**	**$ 120,402**	**$ 178,034**
As of December 2017			
Non-criticized/pass	$ 48,246	$ 100,226	$ 148,472
Criticized	1,045	3,976	5,021
Total	$ 49,291	$ 104,202	$ 153,493

In the table above:

- Loans and lending commitments includes loans and lending commitments held for investment and held for sale.
- 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.

For Marcus loans, an important credit-quality indicator is the Fair Isaac Corporation (FICO) credit score, which measures a borrower's creditworthiness by considering factors such as payment and credit history. FICO credit scores are refreshed periodically by the Bank to assess the updated creditworthiness of the borrower. As of both June 2018 and December 2017, the weighted average FICO credit score of the Marcus loans receivable was in excess of 700 and the percentage of loans with an underlying FICO credit score of less than 660 was low double digits.

Impaired Loans. 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 nonaccrual 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 June 2018 and December 2017, the gross carrying value of impaired loans receivable on nonaccrual status was $355 million and $284 million, respectively. As of both June 2018 and December 2017, the Bank did not have any loans or lending commitments that were modified in a troubled debt restructuring.

Allowance for Losses on Loans and Lending Commitments

The Bank's allowance for loan losses consists 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 evaluated for specific loan-level reserves 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 risk factors, 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. In addition, for loans backed by real estate, risk factors include loan to value ratio, debt service ratio and home price index. Risk factors for Marcus loans include FICO credit scores and delinquency status.

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.

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.

The table below presents gross loans held for investment and lending commitments held for investment by impairment methodology.

$ in millions	Specific	Portfolio	Total
As of June 2018			
Loans Held for Investment			
Corporate loans	**$ 8**	**$ 23,908**	**$ 23,916**
Loans to PWM Clients	**145**	**15,089**	**15,234**
Loans backed by:			
Commercial real estate	**–**	**7,520**	**7,520**
Residential real estate	**202**	**2,413**	**2,615**
Marcus loans	**–**	**3,120**	**3,120**
Other loans	**–**	**2,938**	**2,938**
Total	**$ 355**	**$ 54,988**	**$ 55,343**
Lending Commitments Held for Investment			
Corporate	**$ –**	**$ 103,688**	**$ 103,688**
Other	**–**	**5,838**	**5,838**
Total	**$ –**	**$ 109,526**	**$ 109,526**
As of December 2017			
Loans Held for Investment			
Corporate loans	$ 121	$ 21,047	$ 21,168
Loans to PWM Clients	163	14,322	14,485
Loans backed by:			
Commercial real estate	–	5,517	5,517
Residential real estate	–	2,149	2,149
Marcus loans	–	1,912	1,912
Other loans	–	2,885	2,885
Total	$ 284	$ 47,832	$ 48,116
Lending Commitments Held for Investment			
Corporate	$ 28	$ 92,189	$ 92,217
Other	–	5,017	5,017
Total	$ 28	$ 97,206	$ 97,234

In the table above:

- Gross loans held for investment and lending commitments held for investment, subject to specific loan-level reserves, included $320 million and $124 million of impaired loans and lending commitments as of June 2018 and December 2017, respectively, which did not require a reserve as the loan was deemed to be recoverable.
- Gross loans held for investment deemed impaired and subject to specific loan-level reserves represented 0.6% of total gross loans held for investment as of both June 2018 and December 2017.

The table below presents changes in the allowance for loan losses and the allowance for losses on lending commitments, as well as details by impairment methodology.

	Six Months Ended June 2018		Year Ended December 2017	
$ in millions	**Loans Receivable**	**Lending Commitments**	Loans Receivable	Lending Commitments
Changes in the allowance for losses				
Beginning balance	**$ 354**	**$ 193**	$ 219	$ 163
Net charge-offs	**(49)**	**–**	(158)	–
Provision	**141**	**16**	297	38
Other	**(34)**	**(5)**	(4)	(8)
Ending balance	**$ 412**	**$ 204**	$ 354	$ 193
Allowance for losses by impairment methodology				
Specific	**$ 9**	**$ 5**	$ 47	$ 10
Portfolio	**403**	**199**	307	183
Total	**$ 412**	**$ 204**	$ 354	$ 193

In the table above:

- Substantially all net charge-offs were related to consumer loans for the six months ended June 2018 and primarily related to corporate loans for the year ended December 2017.
- The provision for losses on loans and lending commitments was primarily related to consumer loans for the six months ended June 2018 and primarily related to corporate loans and lending commitments, and consumer loans for the year ended December 2017.
- Other represents the reduction to the allowance related to loans and lending commitments transferred to held for sale.
- Portfolio level reserves were primarily related to corporate loans and consumer loans and specific loan-level reserves were primarily related to corporate loans.
- Substantially all of the allowance for losses on lending commitments was related to corporate lending commitments.
- Allowance for loan losses as a percentage of total gross loans held for investment was 0.7% as of both June 2018 and December 2017.
- Net charge-offs as a percentage of average total gross loans held for investment was 0.2% on an annualized basis for the six months ended June 2018 and 0.4% for the year ended December 2017.

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 20 for further information about interest income and interest expense.

The table below presents the carrying value of resale and repurchase agreements.

	As of	
$ in millions	**June 2018**	December 2017
Securities purchased under agreements to resell	**$ 22,560**	$ 18,320
Securities sold under agreements to repurchase	**$ 782**	$ 56

In the table above:

- All repurchase agreements are carried at fair value under the fair value option.
- As of June 2018 and December 2017, $22.42 billion and $17.92 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.

Even though repurchase and resale agreements involve the legal transfer of ownership of financial instruments, they are accounted for as financing arrangements because they require the financial instruments to be repurchased or resold before or at the maturity of the agreement. The financial instruments purchased or sold in resale and repurchase agreements typically include U.S. government and 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, as well as the amounts of counterparty netting and cash and securities collateral, not offset in the consolidated statements of financial condition.

	Assets	Liabilities
$ in millions	Resale agreements	Repurchase agreements
As of June 2018		
Included in consolidated statements of financial condition		
Gross carrying value	**$ 25,478**	**$ 3,700**
Counterparty netting	**(2,918)**	**(2,918)**
Total	**22,560**	**782**
Amounts not offset		
Counterparty netting	**(65)**	**(65)**
Collateral	**(22,481)**	**(712)**
Total	**$ 14**	**$ 5**
As of December 2017		
Included in consolidated statements of financial condition		
Gross carrying value	$ 19,700	$ 1,436
Counterparty netting	(1,380)	(1,380)
Total	18,320	56
Amounts not offset		
Counterparty netting	(55)	(55)
Collateral	(18,242)	–
Total	$ 23	$ 1

In the table above:

- Substantially all 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.
- Amounts not offset includes counterparty netting that does not meet the criteria for netting under U.S. GAAP and the fair value of collateral received or posted subject to enforceable credit support agreements.

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	
	June	December
$ in millions	2018	2017
Money market instruments	$ 40	$ 46
U.S. government and agency obligations	3,625	1,302
Non-U.S. government and agency obligations	25	–
Corporate debt securities	10	88
Total	**$ 3,700**	$ 1,436

As of both June 2018 and December 2017, 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. Other secured financings consists of:

- FHLB advances; and
- Transfers of assets accounted for as financings rather than sales (primarily collateralized by bank loans and mortgage whole loans).

Other secured financings includes arrangements that are nonrecourse. As of June 2018 and December 2017, nonrecourse other secured financings were $119 million and $107 million, respectively.

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 classified in level 3 as of both June 2018 and December 2017.

FHLB Advances. As a member of the FHLB, the Bank can draw under a funding arrangement secured by eligible collateral. As of June 2018 and December 2017, outstanding borrowings from the FHLB were $1.43 billion and $3.40 billion, respectively. As of June 2018, interest rates ranged from 3-month LIBOR plus 0.21% to 0.36% with a weighted average rate of 3-month LIBOR plus 0.29%. As of December 2017, interest rates ranged from 3-month LIBOR plus 0.09% to 0.36% with a weighted average rate of 3-month LIBOR plus 0.15%. 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 $932 million and $2.90 billion of short-term borrowings as of June 2018 and December 2017, respectively, and $501 million and $500 million of long-term borrowings as of June 2018 and December 2017, respectively.

Other. As of June 2018 and December 2017, other secured financings, excluding FHLB advances, were $119 million and $107 million, respectively. As of June 2018, all of the amounts outstanding had a contractual maturity of one year or less. As of December 2017, all of the amounts outstanding had a contractual maturity of greater than one year.

Collateral Received and Pledged

The Bank receives cash and securities (e.g., U.S. government and agency obligations, 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 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	
	June	December
$ in millions	**2018**	2017
Collateral available to be delivered or repledged	**$ 28,238**	$ 22,217
Collateral that was delivered or repledged	**$ 17,273**	$ 16,106

The table below presents information about assets pledged.

	As of	
	June	December
$ in millions	**2018**	2017
Financial instruments owned pledged to counterparties that:		
Had the right to deliver or repledge	**$ 3,664**	$ 814
Did not have the right to deliver or repledge	**$ 6,458**	$ 6,577
Other assets pledged to counterparties that did not have the right to deliver or repledge	**$ 119**	$ 107

Note 11.

Securitization Activities

The Bank securitizes residential and commercial mortgages and other financial assets by selling these assets to securitization vehicles (e.g., trusts, corporate entities and limited liability companies) or through a resecuritization. An affiliate acts as the underwriter of the beneficial interests that are sold to investors.

Beneficial interests issued by securitization entities are debt or equity instruments that give the investors rights to receive all or portions of specified cash inflows to a securitization vehicle and include senior and subordinated interests in principal, interest and/or other cash inflows. The proceeds from the sale of beneficial interests are used to pay the transferor for the financial assets sold to the securitization vehicle or to purchase securities which serve as collateral.

The Bank accounts for a securitization as a sale when it has relinquished control over the transferred financial assets. Prior to securitization, the Bank generally accounts for assets pending transfer at fair value and therefore does not typically recognize significant gains or losses upon the transfer of assets.

For transfers of financial assets that are not accounted for as sales, the assets remain in financial instruments owned and the transfer is accounted for as a collateralized financing, with the related interest expense recognized over the life of the transaction. See Notes 10 and 20 for further information about collateralized financings and interest expense, respectively.

The Bank generally receives cash in exchange for the transferred assets but may also have continuing involvement with the transferred financial assets, including ownership of beneficial interests in securitized financial assets, primarily in the form of loans receivable.

The primary risks from the Bank's continuing involvement with securitization vehicles are the performance of the underlying collateral and the position of the Bank's investment in the capital structure of the securitization vehicle. Substantially all of these retained interests are accounted for at amortized cost net of allowance for loan losses. Had these interests been included in the Bank's fair value hierarchy, they would have primarily been classified in level 3 as of June 2018 and substantially all would have been classified as level 3 as of December 2017. See Note 9 for further information about loans receivable.

The table below presents the amount of financial assets securitized and the cash flows received on retained interests in securitization entities in which the Bank had continuing involvement as of the end of the period.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Residential mortgages	**$ 2,732**	$ –	**$ 4,625**	$ –
Commercial mortgages	**1,787**	1,892	**3,510**	2,954
Other financial assets	**381**	–	**615**	–
Total	**$ 4,900**	$ 1,892	**$ 8,750**	$ 2,954
Retained interests cash flows	**$ 4**	$ –	**$ 6**	$ –

The table below presents the Bank's continuing involvement in nonconsolidated securitization entities to which the Bank sold assets, as well as the total outstanding principal amount of transferred assets in which the Bank has continuing involvement.

$ in millions	Outstanding Principal Amount	Retained Interests
As of June 2018		
Residential mortgage-backed	**$ 4,578**	**$ 216**
Commercial mortgage-backed	**10,337**	**340**
Other asset-backed	**821**	**39**
Total	**$ 15,736**	**$ 595**
As of December 2017		
Commercial mortgage-backed	$ 6,839	$ 199
Total	$ 6,839	$ 199

In the table above:

- The outstanding principal amount is presented for the purpose of providing information about the size of the securitization entities and is not representative of the Bank's risk of loss.
- The Bank's risk of loss from retained interests is limited to the carrying value of these interests.
- All of the total outstanding principal amount and total retained interests relate to securitizations during 2017 and thereafter.
- The fair value of retained interests was $590 million and $186 million as of June 2018 and December 2017, respectively.

In addition to the interests in the table above, the Bank had other continuing involvement as of June 2018, in the form of commitments with certain nonconsolidated VIEs. The notional amount of these commitments was $37 million. There were no such commitments as of December 2017. The notional amounts of these commitments are included in maximum exposure to loss in the nonconsolidated VIE table in Note 12.

The table below presents the weighted average key economic assumptions used in measuring the fair value of mortgage-backed retained interests and the sensitivity of this fair value to immediate adverse changes of 10% and 20% in those assumptions.

	As of	
$ in millions	**June 2018**	December 2017
Fair value of retained interests	**$ 551**	$ 186
Weighted average life (years)	**5.4**	5.3
Constant prepayment rate	**8.6%**	–
Impact of 10% adverse change	**$ (1)**	$ –
Impact of 20% adverse change	**$ (2)**	$ –
Discount rate	**6.2%**	6.4%
Impact of 10% adverse change	**$ (13)**	$ (4)
Impact of 20% adverse change	**$ (26)**	$ (8)

In the table above:

- Amounts do not reflect the benefit of other financial instruments that are held to mitigate risks inherent in these retained interests.
- Changes in fair value based on an adverse variation in assumptions generally cannot be extrapolated because the relationship of the change in assumptions to the change in fair value is not usually linear.
- The impact of a change in a particular assumption is calculated independently of changes in any other assumption. In practice, simultaneous changes in assumptions might magnify or counteract the sensitivities disclosed above.
- The constant prepayment rate is included only for positions for which it is a key assumption in the determination of fair value.
- Expected credit loss assumptions are reflected in the discount rate for the retained interests.

As of June 2018, the Bank has other retained interests not reflected in the table above with a fair value of $39 million and a weighted average life of 4.5 years. Due to the nature and fair value of certain of these retained interests, the weighted average assumptions for constant prepayment and discount rates and the related sensitivity to adverse changes are not meaningful as of June 2018. The Bank's maximum exposure to adverse changes in the value of these interests is the carrying value of $39 million as of June 2018. As of December 2017, the Bank had no other retained interests.

Note 12.

Variable Interest Entities

A variable interest in a VIE is an investment (e.g., debt or equity) 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.

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. The Bank's involvement with VIEs includes securitization of financial assets, as described in Note 11, and investments in and loans to other types of VIEs, as described below. See Note 11 for further information about securitization activities, including the definition of beneficial interests. See Note 3 for the Bank's consolidation policies, including the definition of a VIE.

The Bank enters into derivatives with certain mortgage-backed and corporate debt and other asset backed VIEs and sells loans to certain mortgage-backed and corporate debt and other asset-backed VIEs. The Bank also makes investments in and lends to VIEs that hold real estate and distressed loans and 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.

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 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 nature of the Bank's variable interests can take different forms, as described in the rows under maximum exposure to loss.

	As of	
$ in millions	**June 2018**	December 2017
Total nonconsolidated VIEs		
Assets in VIEs	**$ 23,983**	$ 16,848
Carrying value of variable interests – assets	**2,298**	1,751
Carrying value of variable interests – liabilities	**336**	168
Maximum exposure to loss:		
Retained interests	**595**	199
Commitments and guarantees	**1,165**	1,803
Derivatives	**5,243**	4,607
Loans and investments	**1,509**	1,237
Total maximum exposure to loss	**$ 8,512**	$ 7,846

In the table above:

- 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 maximum exposure to loss excludes the benefit of offsetting financial instruments that are held to mitigate the risks associated with these variable interests.
- The maximum exposure to loss from retained interests and loans and investments is the carrying value of these interests.
- The maximum exposure to loss from commitments and guarantees, and derivatives 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.

The table below disaggregates the information for nonconsolidated VIEs included in the summary table above.

	As of	
	June	December
$ in millions	2018	2017
Mortgage-backed		
Assets in VIEs	**$ 15,011**	$ 6,939
Carrying value of variable interests – assets	**560**	209
Maximum exposure to loss:		
Retained interests	**556**	199
Commitments and guarantees	**37**	–
Derivatives	**97**	99
Total maximum exposure to loss	**$ 690**	$ 298
Corporate debt and other asset-backed		
Assets in VIEs	**$ 6,059**	$ 7,066
Carrying value of variable interests – assets	**1,209**	1,023
Carrying value of variable interests – liabilities	**336**	168
Maximum exposure to loss:		
Retained interests	**39**	–
Commitments and guarantees	**841**	1,504
Derivatives	**5,146**	4,508
Loans and investments	**980**	718
Total maximum exposure to loss	**$ 7,006**	$ 6,730
Real estate, credit-related and other investing		
Assets in VIEs	**$ 2,913**	$ 2,843
Carrying value of variable interests – assets	**529**	519
Maximum exposure to loss:		
Commitments and guarantees	**287**	299
Loans and investments	**529**	519
Total maximum exposure to loss	**$ 816**	$ 818

As of both June 2018 and December 2017, the carrying values of the Bank's variable interests in nonconsolidated VIEs are included in the consolidated statements of financial condition as follows:

- Mortgage-backed: Substantially all assets were included in loans receivable.
- Corporate debt and other asset-backed: Substantially all assets were included in financial instruments owned and liabilities were included in financial instruments sold, but not yet purchased.
- Real estate, credit-related and other investing: Assets were included in financial instruments owned and other assets.

Consolidated VIEs

As of both June 2018 and December 2017, the Bank had no consolidated VIEs.

Note 13.

Other Assets

Other assets are generally less liquid assets. The table below presents other assets by type.

	As of	
	June	December
$ in millions	2018	2017
FRB shares	**$ 415**	$ 413
Receivables from affiliates	**300**	211
Investments in qualified affordable housing projects	**292**	302
Income tax-related assets	**182**	193
FHLB shares	**89**	179
Miscellaneous receivables and other	**204**	113
Total	**$ 1,482**	$ 1,411

Note 14.

Deposits

The table below presents the types and sources of the Bank's deposits.

$ in millions	Savings and Demand	Time	Total
As of June 2018			
Private bank deposits	**$ 42,881**	**$ 212**	**$ 43,093**
Marcus deposits	**17,611**	**5,587**	**23,198**
Brokered certificates of deposit	**–**	**40,037**	**40,037**
Deposit sweep programs	**15,845**	**–**	**15,845**
Institutional deposits	**1,296**	**4,507**	**5,803**
Total	**$ 77,633**	**$ 50,343**	**$ 127,976**
As of December 2017			
Private bank deposits	$ 41,902	$ 281	$ 42,183
Marcus deposits	13,787	3,330	17,117
Brokered certificates of deposit	–	35,859	35,859
Deposit sweep programs	16,019	–	16,019
Institutional deposits	1,713	3,003	4,716
Total	$ 73,421	$ 42,473	$ 115,894

In the table above:

- Substantially all of the Bank's deposits are interest-bearing and are held in the U.S.
- Savings and demand accounts consist 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.
- Time deposits consist primarily of brokered certificates of deposit which have stipulated maturity dates and rates of interest. Early withdrawals of brokered time deposits are generally prohibited.
- Time deposits included $4.54 billion and $4.43 billion as of June 2018 and December 2017, 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 had a weighted average maturity of approximately 2.0 years and 2.4 years as of June 2018 and December 2017, 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 client's deposit may be withdrawn at any time. As of both June 2018 and December 2017, the Bank had eight deposit sweep program contractual arrangements.
- As of both June 2018 and December 2017, substantially all institutional deposits were from Goldman Sachs Funding LLC (Funding IHC), a wholly-owned subsidiary of Group Inc. formed in 2017.
- Deposits insured by the FDIC as of June 2018 and December 2017 were approximately $84.78 billion and $75.02 billion, respectively.

The table below presents the Bank's time deposits by contractual maturity.

$ in millions	As of June 2018
Remainder of 2018	**$ 10,036**
2019	**17,427**
2020	**7,170**
2021	**4,513**
2022	**4,960**
2023	**2,695**
2024 - thereafter	**3,542**
Total	**$ 50,343**

As of June 2018, deposits included $6.62 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 portion of its time deposits not accounted for at fair value from fixed-rate obligations into floating-rate obligations. The carrying value of time deposits not accounted for at fair value approximated fair value as of both June 2018 and December 2017. 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 both June 2018 and December 2017.

The table below presents time deposits accounted for under the fair value option by tenor.

$ in millions	Principal	Fair Value
As of June 2018		
Maturity ≤ 1 year	**$ 297**	**$ 304**
Maturity > 1 year	**4,068**	**4,239**
Total	**$ 4,365**	**$ 4,543**
As of December 2017		
Maturity ≤ 1 year	$ 448	$ 449
Maturity > 1 year	3,678	3,979
Total	$ 4,126	$ 4,428

Note 15.

Unsecured Borrowings

The table below presents details about the Bank's unsecured borrowings.

	As of	
	June	December
$ in millions	**2018**	2017
Unsecured short-term borrowings	**$ 72**	$ 2,085
Unsecured long-term borrowings	**5,383**	2,134
Total	**$ 5,455**	$ 4,219

Subordinated Borrowings

As of both June 2018 and December 2017, the Bank had a revolving subordinated loan agreement with Funding IHC, which expires in 2039. As of December 2017, this subordinated loan agreement had a $5.00 billion borrowing limit. In April 2018, this subordinated loan agreement was amended to remove the $5.00 billion borrowing limit. As of June 2018, outstanding subordinated borrowings under this agreement were $4.25 billion, of which $2.25 billion matures in 2028 and $2.00 billion matures in 2024. As of December 2017, outstanding subordinated borrowings under this agreement were $2.00 billion, maturing in 2024. The carrying value of the subordinated borrowings generally approximates fair value. As of both June 2018 and December 2017, outstanding borrowings 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

In June 2018, the Bank issued $1.00 billion of senior unsecured debt, which matures in 2020. As of June 2018, the carrying value of the Bank's unsecured debt was $999 million, which approximated its fair value. The Bank pays interest semi-annually on the senior unsecured debt at an annual rate of 3.20%.

The Bank has a senior unsecured facility, committed on an intraday basis up to $4.00 billion with Group Inc. This facility automatically renews each business day for a period of six months with a final maturity date in 2020. As of June 2018, there were no outstanding borrowings under this facility. As of December 2017, outstanding short-term borrowings were $15 million.

The Bank has a senior debt facility consisting of an uncommitted term unsecured line of credit with Funding IHC which matures in 2019. As of June 2018, there were no outstanding borrowings under this facility. As of December 2017, outstanding short-term borrowings were $2.00 billion under this facility.

Other Unsecured Borrowings

The Bank held $206 million and $204 million of other unsecured borrowings as of June 2018 and December 2017, respectively. As of June 2018, other unsecured borrowings were primarily hybrid financial instruments and $72 million was classified as short-term borrowings and $134 million was classified as long-term borrowings. As of December 2017, substantially all other unsecured borrowings were hybrid financial instruments and $70 million was classified as short-term borrowings and $134 million was classified as long-term borrowings.

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 16.

Other Liabilities

The table below presents other liabilities by type.

	As of	
	June	December
$ in millions	**2018**	2017
Income tax-related liabilities	**$ 1,134**	$ 860
Payables to affiliates	**391**	146
Accrued expenses and other	**781**	647
Total	**$ 2,306**	$ 1,653

Note 17.

Commitments, Contingencies and Guarantees

Commitments

The table below presents the Bank's commitments by type.

	As of	
$ in millions	**June 2018**	December 2017
Commercial lending:		
Investment-grade	**$ 80,255**	$ 70,913
Non-investment-grade	**40,303**	32,313
Warehouse financing	**4,717**	5,326
Total lending commitments	**125,275**	108,552
Contingent and forward starting collateralized agreements	**944**	532
Forward starting collateralized financings	**35**	915
Investment commitments	**694**	1,898
Other	**1,011**	493
Total commitments	**$ 127,959**	$ 112,390

The table below presents the Bank's commitments by period of expiration.

	As of June 2018			
$ in millions	**Remainder of 2018**	**2019 - 2020**	**2021 - 2022**	**2023 - Thereafter**
Commercial lending:				
Investment-grade	**$ 11,542**	**$ 24,292**	**$ 31,241**	**$ 13,180**
Non-investment-grade	**840**	**8,733**	**14,556**	**16,174**
Warehouse financing	**181**	**2,017**	**1,805**	**714**
Total lending commitments	**12,563**	**35,042**	**47,602**	**30,068**
Contingent and forward starting collateralized agreements	**944**	**–**	**–**	**–**
Forward starting collateralized financings	**35**	**–**	**–**	**–**
Investment commitments	**6**	**–**	**2**	**686**
Other	**1,011**	**–**	**–**	**–**
Total commitments	**$ 14,559**	**$ 35,042**	**$ 47,604**	**$ 30,754**

Lending Commitments

The Bank's lending commitments 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.

The table below presents details about the Bank's lending commitments.

	As of	
$ in millions	**June 2018**	December 2017
Held for investment	**$ 109,526**	$ 97,234
Held for sale	**10,876**	6,968
At fair value	**4,873**	4,350
Total	**$ 125,275**	$ 108,552

In the table above:

- Held for investment lending commitments are accounted for on an accrual basis. See Note 9 for further information about such commitments.
- Held for sale lending commitments are accounted for at the lower of cost or fair value. See Note 9 for further information about such commitments.
- Gains or losses related to lending commitments at fair value, 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 $22.48 billion and $25.70 billion as of June 2018 and December 2017, 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 $550 million of protection had been provided as of both June 2018 and December 2017. 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, substantially all of which consist of retail and corporate loans.

Contingent and Forward Starting Collateralized Agreements / Forward Starting Collateralized Financings

Contingent and forward starting collateralized agreements includes resale agreements, and forward starting collateralized financings includes repurchase and secured lending 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

Investment commitments includes commitments to invest in securities, real estate and other assets.

Contingencies

Legal Proceedings. See Note 23 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 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 financial guarantees.

$ in millions	Derivatives	Securities lending indemnifications	Other financial guarantees
As of June 2018			
Carrying Value of Net Liability	**$ 1,707**	**$ –**	**$ 3**
Maximum Payout/Notional Amount by Period of Expiration			
Remainder of 2018	**$ 24,098**	**$ 43,331**	**$ 123**
2019 - 2020	**231,092**	**–**	**1,564**
2021 - 2022	**73,549**	**–**	**555**
2023 - thereafter	**16,879**	**–**	**199**
Total	**$ 345,618**	**$ 43,331**	**$ 2,441**
As of December 2017			
Carrying Value of Net Liability	$ 1,222	$ –	$ 7
Maximum Payout/Notional Amount by Period of Expiration			
2018	$ 70,979	$ 42,927	$ 413
2019 - 2020	38,509	–	853
2021 - 2022	11,303	–	1,037
2023 - thereafter	9,846	–	–
Total	$ 130,637	$ 42,927	$ 2,303

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 lending commitments. See the tables in “Commitments” above for a summary of the Bank’s commitments.
- The carrying value for derivatives included derivative assets of $75 million and $58 million and derivative liabilities of $1.78 billion and $1.28 billion as of June 2018 and December 2017, respectively.

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 table 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 $44.45 billion and $44.01 billion as of June 2018 and December 2017, 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.

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.

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 guarantees and indemnifications have been recognized in the consolidated statements of financial condition as of both June 2018 and December 2017.

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 both June 2018 and December 2017.

Note 18.

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 regulatory capital requirements applicable to state member banks based on the FRB's regulations (Capital Framework).

The capital requirements are expressed as risk-based capital and leverage ratios that compare measures of regulatory capital to risk-weighted assets (RWAs), average assets and off-balance-sheet exposures. Failure to comply with these capital requirements could result in restrictions being imposed by the Bank's regulators and could limit the Bank's ability to distribute capital, including dividend payments, and to make certain discretionary compensation payments. 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 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 Capital Framework, the Bank is an "Advanced approach" banking organization.

The Capital Framework includes risk-based capital buffers that phase in ratably, becoming fully effective on January 1, 2019. The Capital Framework also requires deductions from regulatory capital that phased in ratably per year from 2014 to 2018.

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 Capital Framework (together, the Standardized Capital Rules) and (ii) the Advanced approach and market risk rules set out in the Capital Framework (together, the Basel III Advanced Rules). The lower of each risk-based capital ratio calculated in (i) and (ii) is the ratio against which the Bank's compliance with its minimum risk-based ratio requirements is assessed. Under the Capital Framework, the Bank is also subject to Tier 1 leverage requirements established by the FRB. The Capital Framework also introduced a supplementary leverage ratio (SLR) which became effective January 1, 2018.

Minimum Ratios and Buffers. 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. In addition, under the FRB rules, commencing on January 1, 2018, in order to be considered a "well-capitalized" depository institution, the Bank must meet the SLR requirement of 6.0% or greater.

As of both June 2018 and December 2017, the Bank was in compliance with its minimum risk-based capital and leverage requirements and the "well-capitalized" minimum ratios.

The table below presents the minimum ratios and the "well-capitalized" minimum ratios required for the Bank.

	Minimum Ratio as of		
	June 2018	December 2017	**"Well-capitalized" Minimum Ratio**
Risk-based capital ratios			
CET1 ratio	**6.375%**	5.750%	**6.5%**
Tier 1 capital ratio	**7.875%**	7.250%	**8.0%**
Total capital ratio	**9.875%**	9.250%	**10.0%**
Leverage ratios			
Tier 1 leverage ratio	**4.000%**	4.000%	**5.0%**
SLR	**3.000%**	N/A	**6.0%**

In the table above:

- The minimum risk-based capital ratios as of June 2018 reflect (i) the 75% phase-in of the capital conservation buffer of 2.5% and (ii) the countercyclical capital buffer of zero percent, each described below.
- The minimum risk-based capital ratios as of December 2017 reflect (i) the 50% phase-in of the capital conservation buffer of 2.5% and (ii) the countercyclical capital buffer of zero percent, each described below.

The Bank's capital levels and prompt corrective action classification are also subject to qualitative judgments 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 described above, could result in restrictions being imposed by the Bank's regulators.

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 Capital Framework also provides for a countercyclical 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 June 2018, the FRB has set the countercyclical capital buffer at zero percent.

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.

Credit Risk

Credit RWAs are calculated based upon measures of exposure, which are then risk weighted. The following is a description of the calculation of credit RWAs in accordance with the Standardized Capital Rules and the Basel III Advanced Rules:

- For credit RWAs calculated in accordance with the Standardized Capital Rules, the Bank utilizes prescribed risk-weights which depend largely on the type of counterparty (e.g., whether the counterparty is a sovereign, bank, broker-dealer or other entity). The exposure measure for derivatives is based on a combination of positive net current exposure and a percentage of the notional amount of each derivative. The exposure measure for securities financing transactions is calculated to reflect adjustments for potential price volatility, the size of which depends on factors such as the type and maturity of the security, and whether it is denominated in the same currency as the other side of the financing transaction. The Bank utilizes specific required formulaic approaches to measure exposure for securitizations; and
- For credit RWAs calculated in accordance with the Basel III Advanced Rules, as permitted by regulators, the Bank computes the risk-weights for wholesale and retail credit exposures in accordance with the Advanced Internal Ratings-Based approach. This approach is based on internal assessments of the creditworthiness of counterparties, with key inputs being the probability of default, loss given default and the effective maturity. The Capital Framework requires that a BHC, inclusive of certain of its subsidiaries, obtain prior written agreement from its regulators before using internal models for such purposes. The Bank utilizes internal models to measure exposure for derivatives and securities financing transactions.

Market Risk

Market RWAs are calculated based on measures of exposure which include Value-at-Risk (VaR), stressed VaR, incremental risk and comprehensive risk based on internal models, and a standardized measurement method for specific risk. The market risk regulatory capital rules require that a BHC, inclusive of certain of its subsidiaries, obtain prior written agreement from its regulators before using any internal model to calculate its risk-based capital requirement. The following is further information regarding the measures of exposure for market RWAs calculated in accordance with the Standardized Capital Rules and Basel III Advanced Rules:

- VaR is the potential loss in value of inventory positions, as well as certain other financial assets and financial liabilities, due to adverse market movements over a defined time horizon with a specified confidence level. For both risk management purposes and regulatory capital calculations the Bank uses a single VaR model which captures risks including those related to interest rates, equity prices and currency rates. However, VaR used for regulatory capital requirements (regulatory VaR) differs from risk management VaR due to different time horizons and confidence levels (10-day and 99% for regulatory VaR vs. one-day and 95% for risk management VaR), as well as differences in the scope of positions on which VaR is calculated. The Bank's positional losses observed on a single day exceeded its 99% one-day regulatory VaR four times during the six months ended June 2018 and did not exceed its 99% one-day regulatory VaR during the year ended December 2017. There was no change in the VaR multiplier used to calculate Market RWAs;

- Stressed VaR is the potential loss in value of inventory positions, as well as certain other financial assets and financial liabilities, during a period of significant market stress;
- Incremental risk is the potential loss in value of non-securitized inventory positions due to the default or credit migration of issuers of financial instruments over a one-year time horizon;
- Comprehensive risk is the potential loss in value, due to price risk and defaults, within the Bank's credit correlation positions; and
- Specific risk is the risk of loss on a position that could result from factors other than broad market movements, including event risk, default risk and idiosyncratic risk. The standardized measurement method is used to determine specific risk RWAs, by applying supervisory defined risk-weighting factors after applicable netting is performed.

Operational Risk

Operational RWAs are only required to be included under the Basel III Advanced Rules. As permitted by regulators, the Bank calculates operational RWAs in accordance with the "Advanced Measurement Approach," and therefore utilizes an internal risk-based model to quantify Operational RWAs.

Risk-based Capital Ratios and RWAs. Each of the risk-based capital 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 both June 2018 and December 2017.

The table below presents the Bank's risk-based capital ratios.

	As of	
$ in millions	**June 2018**	December 2017
Common Equity Tier 1	**$ 26,284**	$ 25,343
Tier 1 capital	**$ 26,284**	$ 25,343
Standardized Tier 2 and Total capital		
Tier 1 capital	**$ 26,284**	$ 25,343
Qualifying subordinated debt	**4,250**	2,000
Allowance for losses on loans and lending commitments	**616**	547
Standardized Tier 2 capital	**4,866**	2,547
Standardized Total capital	**$ 31,150**	$ 27,890
Basel III Advanced Tier 2 and Total capital		
Tier 1 capital	**$ 26,284**	$ 25,343
Standardized Tier 2 capital	**4,866**	2,547
Allowance for losses on loans and lending commitments	**(616)**	(547)
Basel III Advanced Tier 2 capital	**4,250**	2,000
Basel III Advanced Total capital	**$ 30,534**	$ 27,343
RWAs		
Standardized	**$ 240,369**	$ 229,775
Basel III Advanced	**$ 167,423**	$ 164,602
CET1 ratio		
Standardized	**10.9%**	11.0%
Basel III Advanced	**15.7%**	15.4%
Tier 1 capital ratio		
Standardized	**10.9%**	11.0%
Basel III Advanced	**15.7%**	15.4%
Total capital ratio		
Standardized	**13.0%**	12.1%
Basel III Advanced	**18.2%**	16.6%

In the table above:

- The Bank's Standardized and Basel III Advanced CET1 ratios and Tier 1 capital ratios remained essentially unchanged from December 2017 to June 2018. The increase in the Bank's Standardized and Basel III Advanced Total capital ratios from December 2017 to June 2018 is primarily due to an increase in Total capital, principally due to the issuance of subordinated debt.
- Qualifying subordinated debt is subordinated debt issued by the Bank with an original maturity of five years or greater. The outstanding amount of subordinated debt qualifying for Tier 2 capital is reduced upon reaching a remaining maturity of five years. See Note 15 for further information about the Bank's subordinated debt.

The tables below present the components of the Bank's RWAs.

	Standardized Capital Rules as of	
	June	December
$ in millions	**2018**	2017
Credit RWAs		
Derivatives	**$ 89,409**	$ 87,552
Commitments, guarantees and loans	**113,595**	99,613
Securities financing transactions	**7,046**	7,198
Equity investments	**823**	835
Other	**6,890**	6,331
Total Credit RWAs	**217,763**	201,529
Market RWAs		
Regulatory VaR	**2,826**	2,696
Stressed VaR	**16,863**	19,486
Incremental risk	**1,458**	1,143
Comprehensive risk	**598**	799
Specific risk	**861**	4,122
Total Market RWAs	**22,606**	28,246
Total RWAs	**$ 240,369**	$ 229,775

	Basel III Advanced Rules as of	
	June	December
$ in millions	**2018**	2017
Credit RWAs		
Derivatives	**$ 17,322**	$ 26,239
Commitments, guarantees and loans	**106,823**	89,206
Securities financing transactions	**2,376**	1,731
Equity investments	**868**	1,056
Other	**3,428**	4,074
Total Credit RWAs	**130,817**	122,306
Market RWAs		
Regulatory VaR	**2,826**	2,696
Stressed VaR	**16,863**	19,486
Incremental risk	**1,458**	1,143
Comprehensive risk	**598**	799
Specific risk	**861**	4,122
Total Market RWAs	**22,606**	28,246
Total Operational RWAs	**14,000**	14,050
Total RWAs	**$ 167,423**	$ 164,602

In the tables above:

- Securities financing transactions represents resale and repurchase agreements.
- Other includes receivables, certain debt securities, cash and other assets.

The tables below present changes in the Bank's RWAs.

	Six Months Ended June 2018	
$ in millions	**Standardized**	**Basel III Advanced**
Risk-Weighted Assets		
Beginning balance	**$ 229,775**	**$ 164,602**
Credit RWAs		
Change in:		
Derivatives	**1,857**	**(8,917)**
Commitments, guarantees and loans	**13,982**	**17,617**
Securities financing transactions	**(152)**	**645**
Equity investments	**(12)**	**(188)**
Other	**559**	**(646)**
Change in Credit RWAs	**16,234**	**8,511**
Market RWAs		
Change in:		
Regulatory VaR	**130**	**130**
Stressed VaR	**(2,623)**	**(2,623)**
Incremental risk	**315**	**315**
Comprehensive risk	**(201)**	**(201)**
Specific risk	**(3,261)**	**(3,261)**
Change in Market RWAs	**(5,640)**	**(5,640)**
Operational RWAs		
Change in operational risk	**–**	**(50)**
Change in Operational RWAs	**–**	**(50)**
Ending balance	**$ 240,369**	**$ 167,423**

	Year Ended December 2017	
$ in millions	Standardized	Basel III Advanced
Risk-Weighted Assets		
Beginning balance	$ 204,232	$ 131,051
Credit RWAs		
Change in:		
Derivatives	(3,682)	335
Commitments, guarantees and loans	17,483	22,173
Securities financing transactions	216	(656)
Equity investments	130	135
Other	789	1,408
Change in Credit RWAs	14,936	23,395
Market RWAs		
Change in:		
Regulatory VaR	(829)	(829)
Stressed VaR	10,048	10,048
Incremental risk	(170)	(170)
Comprehensive risk	149	136
Specific risk	1,409	1,409
Change in Market RWAs	10,607	10,594
Operational RWAs		
Change in operational risk	–	(438)
Change in Operational RWAs	–	(438)
Ending balance	$ 229,775	$ 164,602

In the tables above:

- Standardized Credit RWAs as of June 2018 increased by $16.23 billion compared with December 2017, primarily reflecting an increase in commitments, guarantees and loans, principally due to increased lending activity. Standardized Market RWAs as of June 2018 decreased by $5.64 billion compared with December 2017, primarily reflecting a decrease in both specific risk and stressed VaR, as a result of changes in risk exposures.
- Basel III Advanced Credit RWAs as of June 2018 increased by $8.51 billion compared with December 2017, primarily reflecting an increase in commitments, guarantees and loans, principally due to increased lending activity, partially offset by a decrease in derivatives, principally due to decreased exposure. Basel III Advanced Market RWAs as of June 2018 decreased by $5.64 billion compared with December 2017, primarily reflecting a decrease in both specific risk and stressed VaR, as a result of changes in risk exposures.
- Standardized Credit RWAs as of December 2017 increased by $14.94 billion compared with December 2016, primarily reflecting an increase in commitments, guarantees and loans, principally due to increased lending activity. Standardized Market RWAs as of December 2017 increased by $10.61 billion compared with December 2016, primarily reflecting an increase in stressed VaR, as a result of increased risk exposures.
- Basel III Advanced Credit RWAs as of December 2017 increased by $23.40 billion compared with December 2016, primarily reflecting an increase in commitments, guarantees and loans, principally due to increased lending activity. Basel III Advanced Market RWAs as of December 2017 increased by $10.59 billion compared with December 2016, primarily reflecting an increase in stressed VaR, as a result of increased risk exposures.

Leverage Ratios

The table below presents the Bank's Tier 1 leverage ratio and SLR.

	For the Three Months Ended or as of	
$ in millions	**June 2018**	December 2017
Tier 1 capital	**$ 26,284**	$ 25,343
Average total assets	**$ 174,286**	$ 168,854
Deductions from Tier 1 capital	**(172)**	(12)
Average adjusted total assets	**174,114**	168,842
Off-balance-sheet exposures	**187,409**	176,892
Total supplementary leverage exposure	**$ 361,523**	$ 345,734
Tier 1 leverage ratio	**15.1%**	15.0%
SLR	**7.3%**	7.3%

In the table above:

- Tier 1 capital and deductions from Tier 1 capital are calculated on a transitional basis as of December 2017.
- Average total assets represents the daily average assets for the quarter.
- Off-balance-sheet exposures represents the monthly average and consists of derivatives, securities financing transactions, commitments and guarantees.
- Tier 1 leverage ratio is defined as Tier 1 capital divided by average adjusted total assets.
- SLR is defined as Tier 1 capital divided by supplementary leverage exposure.

Required Reserves

The deposits of the Bank are insured by the FDIC to the extent provided by law. The FRB requires that the Bank maintain cash reserves with the Federal Reserve Bank of New York. The amount deposited by the Bank at the Federal Reserve Bank of New York was $49.12 billion and $50.86 billion as of June 2018 and December 2017, respectively, which exceeded regulatory reserve requirements by $48.98 billion and $50.74 billion as of June 2018 and December 2017, respectively.

Note 19.

Transactions with Related Parties

Transactions between the Bank and its affiliates are regulated by the FRB. 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 within the Bank.

The table below presents amounts outstanding to/from affiliates, as defined by U.S. GAAP.

	As of	
	June	December
$ in millions	2018	2017
Assets		
Cash	**$ 109**	$ 186
Securities purchased under agreements to resell	**14,687**	15,859
Receivables from customers and counterparties, brokers, dealers and clearing organizations	**1,069**	2,121
Financial instruments owned	**239**	302
Other assets	**300**	211
Total	**$ 16,404**	$ 18,679
Liabilities		
Deposits	**$ 5,866**	$ 4,894
Securities sold under agreements to repurchase	**743**	9
Payables to customers and counterparties, brokers, dealers and clearing organizations	**1,183**	102
Financial instruments sold, but not yet purchased	**502**	1,734
Unsecured borrowings	**4,454**	4,206
Other liabilities	**391**	146
Total	**$ 13,139**	$ 11,091

Group Inc. General Guarantee

Group Inc. has guaranteed 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, collateral posted and received, other liabilities, and unsecured borrowings. For the three months ended June 2018 and June 2017, the Bank recorded net interest income from affiliates of $59 million and $9 million, respectively. For the six months ended June 2018 and June 2017, the Bank recorded net interest income from affiliates of $125 million and net interest expense to affiliates of $40 million, respectively.

Other Transactions

The Bank enters into various activities with affiliated entities and transfers revenues to, and receives revenues from, such affiliates for their participation. The Bank transferred net revenues to affiliates of $93 million and $117 million for the three months ended June 2018 and June 2017, respectively, and $179 million and $206 million for the six months ended June 2018 and June 2017, respectively. These amounts are included in gains and losses from financial instruments, net.

The Bank is subject to service charges from affiliates. The Bank was charged $107 million and $94 million by affiliates for the three months ended June 2018 and June 2017, respectively, and $209 million and $200 million for the six months ended June 2018 and June 2017, respectively, for employment related costs of dual employees and employees of affiliates pursuant to a Master Services Agreement supplemented by Service Level Agreements (collectively, the Master Services Agreement). These amounts are included in service charges.

The Bank receives operational and administrative support and management services from affiliates and is charged for these services. In addition, the Bank provides similar support and services to affiliates and charges these affiliates for the services provided. These amounts are reflected net in the applicable expense captions in the consolidated statements of earnings.

The Bank enters into derivative contracts with Group Inc. and its affiliates in the normal course of business. As of June 2018 and December 2017, the net outstanding derivative contracts with Group Inc. and affiliates was $239 million and $302 million, respectively, included in financial instruments owned, and $502 million and $1.73 billion, respectively, included in financial instruments sold, but not yet purchased.

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 both the six months ended June 2018 and June 2017, there were no equity contributions into the Bank. During the six months ended June 2018, there were no dividends paid by the Bank to Group Inc. During the six months ended June 2017, the Bank paid a dividend of $500 million to Group Inc.

Note 20.

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.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Interest income				
Deposits with banks	**$ 272**	$ 169	**$ 524**	$ 311
Collateralized agreements	**82**	36	**138**	68
Financial instruments owned	**209**	214	**422**	433
Loans receivable (excluding loans held for sale)	**677**	373	**1,253**	699
Other interest	**151**	91	**262**	160
Total interest income	**1,391**	883	**2,599**	1,671
Interest expense				
Deposits	**574**	279	**1,031**	528
Collateralized financings	**14**	12	**28**	21
Financial instruments sold, but not yet purchased	**14**	12	**32**	26
Borrowings	**56**	21	**98**	41
Other interest	**58**	88	**90**	212
Total interest expense	**716**	412	**1,279**	828
Net interest income	**$ 675**	$ 471	**$1,320**	$ 843

In the table above:

- Collateralized agreements consists of securities purchased under agreements to resell.
- Other interest income includes interest income on collateral balances posted to counterparties, loans accounted for as held for sale and other interest-earning assets.
- Collateralized financings consists of securities sold under agreements to repurchase.
- Borrowings includes interest expense from other secured financings and unsecured borrowings, which primarily relates to interest incurred on the Bank's affiliate borrowings from Group Inc. and Funding IHC as well as FHLB advances.
- Other interest expense primarily includes interest expense on collateral balances received from counterparties and interest expense on funding facilities.

Note 21.

Income Taxes

Tax Legislation

The provision for taxes in 2017 reflected an increase in income tax expense of $114 million, primarily representing the estimated impact of Tax Legislation enacted on December 22, 2017 due to the effects of the remeasurement of U.S. deferred tax assets at lower enacted tax rates. While the estimated impact of Tax Legislation was calculated to account for all available information, the Bank anticipates modification to this amount may occur as a result of (i) refinement of the Bank's calculations based on updated information, (ii) changes in the Bank's interpretations and assumptions, (iii) updates from issuance of future legislative guidance and (iv) actions the Bank or Group Inc. may take as a result of Tax Legislation. During the six months ended June 2018, the Bank did not make any material adjustments to this estimate.

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 Group Inc. and its consolidated subsidiaries (collectively, 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.

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. Tax assets and liabilities are presented as a component of other assets and other liabilities, respectively.

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.

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 Bank does not expect completion of these audits to have a material impact on the Bank's financial condition but it may be material to operating results for a particular period, depending, in part, on the operating results for that period.

U.S. Federal 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 2018. 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 2016 tax years remain subject to post-filing review.

New York State and City examinations of Bank tax filings for fiscal 2007 through calendar 2014 have been completed. All years including and subsequent to 2015 for New York State and City remain open to examination by the taxing authorities. 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 22.

Credit Concentrations

The Bank's concentrations of credit risk arise from its lending, market making, cash management and other activities, and may be impacted by changes in economic, industry or political factors. These activities expose the Bank to many different industries and counterparties, and may also subject the Bank to a concentration of credit risk to a particular central bank, counterparty, borrower or issuer, including sovereign issuers, or to a particular clearing house or exchange. The Bank seeks to mitigate credit risk by actively monitoring exposures and obtaining collateral from counterparties as deemed appropriate.

The Bank measures and monitors its credit exposure based on amounts owed to the Bank after taking into account risk mitigants that management considers when determining credit risk. Such risk mitigants include netting and collateral arrangements and economic hedges, such as credit derivatives, futures and forward contracts. Netting and collateral agreements 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.

As of June 2018 and December 2017, the Bank had exposure in cash instruments of $16.48 billion or 9.3% of total assets, and $15.26 billion or 9.3% of total assets, respectively, related to U.S. government and agency obligations. These are included in financial instruments owned. In addition, as of June 2018 and December 2017, the Bank had $49.12 billion and $50.86 billion, respectively, of cash deposits held at the Federal Reserve Bank of New York. These cash deposits are included in cash. As of both June 2018 and December 2017, the Bank did not have credit exposure to any other external counterparty that exceeded 2% of total assets.

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 agency obligations. See Note 10 for further information about collateralized agreements and financings.

The Bank had $22.57 billion and $17.22 billion of U.S. government and agency obligations that collateralize resale agreements as of June 2018 and December 2017, respectively. Given that 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 23.

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 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 where (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) 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 such 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.

Interest Rate Swap Antitrust Litigation. The Bank and certain affiliates (including Group Inc.) are among the defendants named in a putative antitrust class action relating to the trading of interest rate swaps, filed in November 2015 and consolidated in the U.S. District Court for the Southern District of New York. The Bank and certain affiliates (including Group Inc.) also are among the defendants named in two 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 three operators of swap execution facilities and certain of their affiliates. These actions have been consolidated for pretrial proceedings. The complaints generally assert claims under federal antitrust law and state common law in connection with an alleged conspiracy among the defendants to preclude exchange trading of interest rate swaps. The complaints in the individual actions also assert claims under state antitrust law. The complaints seek declaratory and injunctive relief, as well as treble damages in an unspecified amount. Defendants moved to dismiss the class and one of the individual actions on January 20, 2017. On July 28, 2017, the district court issued a decision dismissing the state common law claims asserted by the plaintiffs in the individual action and otherwise limiting the antitrust claims in both actions and the state common law claim in the putative class action to the period from 2013 to 2016. On May 30, 2018, plaintiffs in the putative class action filed a third consolidated amended complaint. Defendants moved to dismiss the second individual action on July 19, 2018.

Credit Default Swap Antitrust Litigation. The Bank and certain affiliates (including Group Inc.) are among the defendants named in an antitrust action relating to the trading of credit default swaps filed in the U.S. District Court for the Southern District of New York on June 8, 2017 by the operator of a swap execution facility and certain of its affiliates. The complaint 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 credit default swaps on the plaintiffs' swap execution facility. The complaint seeks declaratory and injunctive relief, as well as treble damages in an unspecified amount. Defendants moved to dismiss on September 11, 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 24.

Subsequent Events

The Bank evaluated subsequent events through August 10, 2018, 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.

Report of Independent Auditors

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

We have reviewed the accompanying consolidated interim financial information of Goldman Sachs Bank USA and its subsidiaries (the "Bank"), which comprise the consolidated statement of financial condition as of June 30, 2018, the related consolidated statements of earnings for the three and six month periods ended June 30, 2018 and 2017, the consolidated statements of comprehensive income for the three and six month periods ended June 30, 2018 and 2017, the consolidated statement of changes in shareholder's equity for the six month period ended June 30, 2018, and the consolidated statements of cash flows for the six month periods ended June 30, 2018 and 2017.

Management's Responsibility for the Consolidated Interim Financial Information

The Bank's management is responsible for the preparation and fair presentation of the consolidated interim financial information in accordance with accounting principles generally accepted in the United States of America; this responsibility includes the design, implementation, and maintenance of internal control sufficient to provide a reasonable basis for the preparation and fair presentation of the consolidated interim financial information in accordance with accounting principles generally accepted in the United States of America.

Auditors' Responsibility

Our responsibility is to conduct our review in accordance with auditing standards generally accepted in the United States of America applicable to reviews of interim financial information. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with auditing standards generally accepted in the United States of America, the objective of which is the expression of an opinion regarding the financial information taken as a whole. Accordingly, we do not express such an opinion.

Conclusion

Based on our review, we are not aware of any material modifications that should be made to the accompanying consolidated interim financial information for it to be in accordance with accounting principles generally accepted in the United States of America.

Other Matter

We previously audited, in accordance with auditing standards generally accepted in the United States of America, the consolidated statement of financial condition of the Bank as of December 31, 2017, and the related consolidated statements of earnings, comprehensive income, changes in shareholder's equity and cash flows for the year then ended (not presented herein), and in our report dated March 7, 2018, we expressed an unmodified opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated statement of financial condition as of December 31, 2017, and the consolidated statement of changes in shareholder's equity for the year ended December 31, 2017, is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

PricewaterhouseCoopers LLP

August 10, 2018

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Distribution of Assets, Liabilities and Shareholder's Equity

The tables below present a summary of average balances, interest and interest rates.

	Average Balance for the			
	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Assets				
Deposits with banks	**$ 60,535**	$ 65,490	**$ 64,176**	$ 68,970
Collateralized agreements	**12,095**	4,621	**10,643**	4,506
Financial instruments owned	**24,822**	28,689	**25,963**	27,837
Loans receivable (excluding loans held for sale)	**54,318**	37,726	**52,363**	36,914
Other interest-earning assets	**12,195**	9,275	**11,458**	9,161
Total interest-earning assets	**163,965**	145,801	**164,603**	147,388
Cash and due from banks	**178**	225	**217**	226
Other non-interest-earning assets	**10,143**	11,182	**10,962**	11,070
Total assets	**$174,286**	$ 157,208	**$175,782**	$ 158,684
Liabilities				
Interest-bearing deposits	**$121,778**	$ 109,258	**$122,351**	$ 110,141
Collateralized financings	**355**	2,003	**610**	1,556
Financial instruments sold, but not yet purchased	**2,224**	2,529	**3,073**	2,753
Borrowings	**7,512**	4,256	**7,480**	4,493
Other interest-bearing liabilities	**4,376**	3,476	**4,214**	4,209
Total interest-bearing liabilities	**136,245**	121,522	**137,728**	123,152
Non-interest bearing deposits	**4,062**	3,591	**4,008**	3,471
Other non-interest-bearing liabilities	**7,750**	6,994	**8,076**	7,692
Total liabilities	**$148,057**	$ 132,107	**$149,812**	$ 134,315
Shareholder's equity	**26,229**	25,101	**25,970**	24,369
Total liabilities and shareholder's equity	**$174,286**	$ 157,208	**$175,782**	$ 158,684

	Interest for the			
	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Assets				
Deposits with banks	**$ 272**	$ 169	**$ 524**	$ 311
Collateralized agreements	**82**	36	**138**	68
Financial instruments owned	**209**	214	**422**	433
Loans receivable (excluding loans held for sale)	**677**	373	**1,253**	699
Other interest-earning assets	**151**	91	**262**	160
Total interest-earning assets	**$ 1,391**	$ 883	**$ 2,599**	$ 1,671
Liabilities				
Interest-bearing deposits	**$ 574**	$ 279	**$ 1,031**	$ 528
Collateralized financings	**14**	12	**28**	21
Financial instruments sold, but not yet purchased	**14**	12	**32**	26
Borrowings	**56**	21	**98**	41
Other interest-bearing liabilities	**58**	88	**90**	212
Total interest-bearing liabilities	**$ 716**	$ 412	**$ 1,279**	$ 828
Net interest income	**$ 675**	$ 471	**$ 1,320**	$ 843

	Annualized Average Rate for the			
	Three Months Ended June		Six Months Ended June	
	2018	2017	**2018**	2017
Assets				
Deposits with banks	**1.80%**	1.04%	**1.64%**	0.90%
Collateralized agreements	**2.72%**	3.12%	**2.60%**	3.02%
Financial instruments owned	**3.38%**	2.99%	**3.26%**	3.11%
Loans receivable (excluding loans held for sale)	**5.00%**	3.97%	**4.80%**	3.79%
Other interest-earning assets	**4.97%**	3.94%	**4.59%**	3.49%
Total interest-earning assets	**3.40%**	2.43%	**3.17%**	2.27%
Liabilities				
Interest-bearing deposits	**1.89%**	1.02%	**1.69%**	0.96%
Collateralized financings	**N.M.**	2.40%	**N.M.**	2.70%
Financial instruments sold, but not yet purchased	**2.52%**	1.90%	**2.09%**	1.89%
Borrowings	**2.99%**	1.98%	**2.63%**	1.83%
Other interest-bearing liabilities	**5.32%**	10.15%	**4.28%**	10.07%
Total interest-bearing liabilities	**2.11%**	1.36%	**1.86%**	1.34%
Net interest margin	**1.65%**	1.30%	**1.61%**	1.15%

In the tables above:

- Deposits with banks primarily consists of deposits held at the Federal Reserve Bank of New York.
- Collateralized agreements consists of securities purchased under agreements to resell. Collateralized financings consists of securities sold under agreements to repurchase. The average balances for both collateralized agreements and collateralized financings reflect the impact of counterparty netting, while the related interest income and interest expense do not reflect the impact of such counterparty netting. Accordingly, the annualized average rate on collateralized financings for the three and six months ended June 2018 was not meaningful. See Note 10 to the consolidated financial statements and "Results of Operations" in Part II of this Quarterly Report for further information about collateralized agreements and collateralized financings and related interest.
- See Notes 4 through 8 to the consolidated financial statements and "Results of Operations" in Part II of this Quarterly Report for further information about financial instruments owned, and financial instruments sold, but not yet purchased and related interest.
- Loans receivable consists 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" in Part II of this Quarterly Report for further information about loans receivable and related interest.
- Other interest-earning assets and interest-bearing liabilities primarily consists of certain receivables and payables from customers and counterparties and loans held for sale that are accounted for at the lower of cost or fair value.
- Derivative instruments are included in other non-interest-earning assets and other non-interest-bearing liabilities. See Note 7 to the consolidated financial statements and "Results of Operations" in Part II of this Quarterly Report for further information about derivatives.
- Interest-bearing deposits primarily consists 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 retail clients through Marcus. See Note 14 to the consolidated financial statements and "Results of Operations" in Part II of this Quarterly Report for further information about deposits and related interest.
- Borrowings include senior unsecured debt, subordinated borrowings and other secured financings. See Notes 10 and 15 to the consolidated financial statements and "Balance Sheet Analysis and Metrics" in Part II of this Quarterly Report for further information about short-term and long-term borrowings and related interest.
- See Note 20 to the consolidated financial statements for further information about interest income and interest expense.

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 (FRB), 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 as a swap dealer with the U.S. Commodity Futures Trading Commission (CFTC). The Bank is also a government securities dealer subject to the rules and regulations of the U.S. Department of the Treasury (U.S. Treasury).

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 The Goldman Sachs Group, Inc. (Group Inc.) and its consolidated subsidiaries, including us. References to revenue-producing units and control and support functions include activities performed by our employees, by dual employees (who are employees who perform services for both us and another GS Group subsidiary) and by affiliate employees under Bank supervision pursuant to a Master Services Agreement supplemented by Service Level Agreements (collectively, the Master Services Agreement) between us and our affiliates.

This Management's Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with our Annual Report for the year ended December 31, 2017. References to "the 2017 Annual Report" are to our Annual Report for the year ended December 31, 2017. All references to "this Quarterly Report," of which this Management's Discussion and Analysis forms a part, refers to the report dated August 10, 2018. See the 2017 Annual Report for more information relating to our business, the supervision and regulation to which we are subject, risk factors affecting our business, our results of operations and financial condition, as well as our consolidated financial statements.

All references to "the consolidated financial statements" or "Supplemental Financial Information" are to Part I of this Quarterly Report. The consolidated financial statements are unaudited. All references to June 2018, March 2018 and June 2017 refer to our periods ended, or the dates, as the context requires, June 30, 2018, March 31, 2018 and June 30, 2017, respectively. All references to December 2017 refer to the date December 31, 2017. 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.

Our principal office is located in New York, New York. We operate one domestic branch located in Salt Lake City, Utah, which is regulated by the Utah Department of Financial Institutions. We also have a branch in London, United Kingdom, which is regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

We are a wholly-owned subsidiary of Group Inc. Group Inc. is a bank holding company (BHC) 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 FRB.

Our primary activities include lending, deposit taking and engaging in derivatives transactions. We are a lender to private wealth management (PWM) clients, institutional and corporate clients and directly to retail clients through our digital platforms, *Marcus: by Goldman Sachs* (Marcus) and *Goldman Sachs Private Bank Select* (GS Select). In connection with Marcus, in April 2018 the Bank acquired Clarity Money, a personal finance management app that expands the Bank's digital platform for retail clients. We accept deposits from PWM clients, retail clients through Marcus and through deposit sweep programs, and we also issue brokered certificates of deposit. We enter into interest rate, credit, currency, commodity and equity derivatives and certain related products for the purpose of market making and risk management.

Executive Overview

Three Months Ended June 2018 versus June 2017. We generated net earnings of $471 million for the second quarter of 2018, an increase of 22% compared with $387 million for the second quarter of 2017.

Net revenues, including net interest income, were $1.14 billion for the second quarter of 2018, an increase of 23% compared with $926 million for the second quarter of 2017, primarily reflecting significantly higher net interest income and higher net gains from financial instruments, partially offset by a higher provision for losses on loans and lending commitments.

Net interest income was $675 million for the second quarter of 2018, an increase of 43% compared with $471 million for the second quarter of 2017, which resulted in an increase in net interest margin of 35 basis points to 165 basis points for the second quarter of 2018, compared with 130 basis points for the second quarter of 2017. This increase was primarily driven by a higher interest rate environment leading to a significant increase in interest income on loans receivable and cash deposits held at the Federal Reserve Bank of New York (FRBNY), partially offset by an increase in interest expense on interest-bearing deposits.

Non-interest revenues were $466 million for the second quarter of 2018, an increase of 2% compared with $455 million for the second quarter of 2017, primarily reflecting higher net gains from financial instruments, partially offset by a higher provision for losses on loans and lending commitments.

Operating expenses were $537 million for the second quarter of 2018, an increase of 62% compared with $332 million for the second quarter of 2017, primarily reflecting higher compensation and benefits expenses and higher expenses related to Marcus.

Our Common Equity Tier 1 (CET1) ratio as calculated in accordance with the Standardized approach and the Basel III Advanced approach, on a fully phased-in basis, was 10.9% and 15.7%, respectively, as of June 2018. See Note 18 to the consolidated financial statements for further information about our capital ratios.

Six Months Ended June 2018 versus June 2017. We generated net earnings of $1.05 billion for the first half of 2018, an increase of 45% compared with $721 million for the first half of 2017.

Net revenues, including net interest income, were $2.37 billion for the first half of 2018, an increase of 33% compared with $1.79 billion for the first half of 2017, primarily reflecting significantly higher net interest income and higher net gains from financial instruments, partially offset by a higher provision for losses on loans and lending commitments.

Net interest income was $1.32 billion for the first half of 2018, an increase of 57% compared with $843 million for the first half of 2017, which resulted in an increase in net interest margin of 46 basis points to 161 basis points for the first half of 2018, compared with 115 basis points for the first half of 2017. This increase was primarily driven by a higher interest rate environment leading to a significant increase in interest income on loans receivable and cash deposits held at the FRBNY, partially offset by an increase in interest expense on interest-bearing deposits.

Non-interest revenues were $1.05 billion for the first half of 2018, an increase of 11% compared with $946 million for the first half of 2017, primarily reflecting higher net gains from financial instruments, partially offset by a higher provision for losses on loans and lending commitments.

Operating expenses were $1.01 billion for the first half of 2018, an increase of 49% compared with $675 million for the first half of 2017, primarily reflecting higher compensation and benefits expenses and higher expenses related to Marcus.

Business Environment

United States

In the U.S., real gross domestic product (GDP) growth increased compared with the previous quarter, reflecting increases in the growth rates of domestic demand, government spending, and net exports. Measures of consumer confidence moderated slightly from high levels. In addition, the pace of housing starts and home sales decreased compared with the first quarter of 2018. The unemployment rate was 4.0% as of June 2018, slightly lower compared with the end of the first quarter of 2018, and measures of inflation increased. The U.S. Federal Reserve increased its target range for the federal funds rate in June 2018 by 25 basis points to a range of 1.75% to 2.00%. The yield on the 10-year U.S. Treasury note ended the quarter at 2.85%, 11 basis points higher compared with the end of the first quarter of 2018. The price of crude oil (WTI) ended the quarter at approximately $74 per barrel, an increase of 14% from the end of the first quarter of 2018. In equity markets, the NASDAQ Composite Index, the S&P 500 Index and the Dow Jones Industrial Average increased by 6%, 3% and 1%, respectively, compared with the end of the first quarter of 2018.

Global

During the second quarter of 2018, real GDP growth appeared to increase in most major developed economies. However, economic activity slowed in several major emerging market economies, and emerging market asset prices declined significantly as concerns arose about the vulnerability of emerging economies to a stronger U.S. dollar and higher U.S. Treasury rates. The U.S. Presidential Administration proposed significant increases in tariffs on imports, which prompted retaliatory measures from major U.S. trading partners. The rising global trade tensions were a meaningful source of uncertainty affecting asset prices. The U.S. Federal Reserve followed an increase in the target federal funds rate in March 2018 with another increase in June 2018, and the European Central Bank announced in June 2018 a reduction to its future monthly asset purchases.

Critical Accounting Policies

Loans Receivable

Loans receivable in the consolidated statements of financial condition consists of:

- Loans held for investment which are accounted for at amortized cost net of allowance for loan losses.
- Loans held for sale which are accounted for at the lower of cost or fair value.

We assess our loans for impairment on an ongoing basis through our 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. We also assign a regulatory risk rating to such loans based on the definitions provided by the U.S. federal bank regulatory agencies. We may also, where applicable, review certain key metrics, such as delinquency status, collateral values, Fair Isaac Corporation (FICO) credit scores and other risk factors. Such loans are determined to be impaired when it is probable that we 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 nonaccrual 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.

Interest on loans receivable is recognized over the life of the loan and is recorded on an accrual basis.

Our allowance for loan losses consists 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 evaluated for specific loan-level reserves 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 and financial instruments sold, but not yet purchased (i.e., inventory), as well as certain other financial assets and financial liabilities, are included 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 for the majority of our 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 our or our affiliates' credit quality, funding risk, transfer restrictions, liquidity and bid/offer spreads.

Instruments classified in level 3 of the fair value hierarchy are those which require one or more significant inputs that are not observable. As of June 2018, March 2018 and December 2017, level 3 financial assets represented 1.2%, 1.3% and 1.2%, respectively, 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 in 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

We leverage 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 independent risk oversight and control functions. This independent price verification is critical to ensuring that our financial instruments are properly valued.

Price Verification. All financial instruments at fair value classified 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 in level 3 of the fair value hierarchy. Price verification strategies utilized by our independent risk oversight and control 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 risk oversight and control 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" in Part II of the 2017 Annual Report 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.

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, we also enter into transactions with affiliates in the normal course of business, primarily as part of our market-making activities. See "Risk Factors" in Part I of the 2017 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.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Net revenues	**$ 1,141**	$ 926	**$ 2,371**	$ 1,789
Pre-tax earnings	**$ 604**	$ 594	**$ 1,362**	$ 1,114
Net earnings	**$ 471**	$ 387	**$ 1,046**	$ 721
Annualized net earnings to average total assets	**1.1%**	1.0%	**1.2%**	0.9%
Annualized return on average shareholder's equity	**7.2%**	6.2%	**8.1%**	5.9%
Average shareholder's equity to average total assets	**15.0%**	16.0%	**14.8%**	15.3%

In the table above, annualized return on average shareholder's equity is calculated by dividing annualized net earnings by average monthly shareholder's equity.

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.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Interest income	**$ 1,391**	$ 883	**$ 2,599**	$ 1,671
Interest expense	**716**	412	**1,279**	828
Net interest income	**675**	471	**1,320**	843
Non-interest revenues	**466**	455	**1,051**	946
Net revenues, including net interest income	**$ 1,141**	$ 926	**$ 2,371**	$ 1,789
Net interest margin	**1.65%**	1.30%	**1.61%**	1.15%

In the table above:

- Interest income includes interest earned from our lending portfolio, consisting of corporate lending, private bank lending, Marcus lending and other lending. Corporate lending interest income includes interest earned from term loans, revolving lines of credit, letter of credit facilities and bridge loans (collectively, bank loans). Private bank lending interest income includes interest earned from loans to PWM clients, which are primarily secured by securities, commercial and residential real estate or other assets. Marcus lending interest income includes interest earned from unsecured, fixed-rate loans. Interest income is also earned from cash deposits held primarily at the FRBNY. In addition, interest is earned from certain financial instruments owned, collateralized agreements and collateral balances posted to counterparties.

- Interest expense includes interest related to deposit-taking activities, including accepting deposits from PWM clients, through deposit sweep agreements with third-party broker-dealers, through the issuance of term certificates of deposit and directly from retail clients through Marcus. Interest expense also includes interest related to certain financial instruments sold, but not yet purchased, collateralized financings (including interest on advances from the Federal Home Loan Bank of New York (FHLB)), unsecured borrowings and collateral balances received from counterparties. We apply hedge accounting to certain interest rate swaps used to manage the interest rate exposure of certain fixed-rate unsecured borrowings and 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.

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

Three Months Ended June 2018 versus June 2017

Net revenues in the consolidated statements of earnings, including net interest income, were $1.14 billion for the second quarter of 2018, an increase of 23% compared with $926 million for the second quarter of 2017, primarily reflecting significantly higher net interest income and higher net gains from financial instruments, partially offset by a higher provision for losses on loans and lending commitments.

Net Interest Income. Net interest income in the consolidated statements of earnings was $675 million for the second quarter of 2018, 43% higher than the second quarter of 2017, primarily driven by a higher interest rate environment leading to a significant increase in interest income on loans receivable and cash deposits held at the FRBNY, partially offset by an increase in interest expense on interest-bearing deposits. Net interest income was 59% of net revenues in the second quarter of 2018, compared with 51% in the second quarter of 2017.

Net Interest Margin. Net interest margin increased by 35 basis points to 165 basis points for the second quarter of 2018, compared with 130 basis points for the second quarter of 2017, primarily driven by a higher interest rate environment leading to a significant increase in interest income on loans receivable and cash deposits held at the FRBNY, partially offset by an increase in interest expense on interest-bearing deposits.

Non-Interest Revenues. Non-interest revenues were $466 million for the second quarter of 2018, 2% higher than the second quarter of 2017, primarily reflecting higher net gains from financial instruments, partially offset by a higher provision for losses on loans and lending commitments, which included an increased provision for losses due to the growth of our Marcus portfolio.

Six Months Ended June 2018 versus June 2017

Net revenues in the consolidated statements of earnings, including net interest income, were $2.37 billion for the first half of 2018, an increase of 33% compared with $1.79 billion for the first half of 2017, primarily reflecting significantly higher net interest income and higher net gains from financial instruments, partially offset by a higher provision for losses on loans and lending commitments.

Net Interest Income. Net interest income in the consolidated statements of earnings was $1.32 billion for the first half of 2018, 57% higher than the first half of 2017, primarily driven by a higher interest rate environment leading to a significant increase in interest income on loans receivable and cash deposits held at the FRBNY, partially offset by an increase in interest expense on interest-bearing deposits. Net interest income was 56% of net revenues in the first half of 2018, compared with 47% in the first half of 2017.

Net Interest Margin. Net interest margin increased by 46 basis points to 161 basis points for the first half of 2018, compared with 115 basis points for the first half of 2017, primarily driven by a higher interest rate environment leading to a significant increase in interest income on loans receivable and cash deposits held at the FRBNY, partially offset by an increase in interest expense on interest-bearing deposits.

Non-Interest Revenues. Non-interest revenues were $1.05 billion for the first half of 2018, 11% higher than the first half of 2017, primarily reflecting higher net gains from financial instruments, partially offset by a higher provision for losses on loans and lending commitments, which included an increased provision for losses due to the growth of our Marcus portfolio.

Interest Income

The table below presents our sources of interest income.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Loans receivable (excluding loans held for sale)	**$ 677**	$ 373	**$ 1,253**	$ 699
Deposits with banks	**272**	169	**524**	311
Financial instruments owned	**209**	214	**422**	433
Collateralized agreements	**82**	36	**138**	68
Other	**151**	91	**262**	160
Total interest income	**$ 1,391**	$ 883	**$ 2,599**	$ 1,671

Three Months Ended June 2018 versus June 2017

Interest income in the consolidated statements of earnings was $1.39 billion for the second quarter of 2018, 58% higher than the second quarter of 2017. 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.

Interest income from loans receivable (excluding loans held for sale) was $677 million for the second quarter of 2018, 82% higher than the second quarter of 2017, due to higher average balances and higher interest rates. See Note 9 to the consolidated financial statements for further information about loans receivable.

Interest income from deposits with banks was $272 million for the second quarter of 2018, 61% higher than the second quarter of 2017, due to higher interest rates on deposits held at the FRBNY. See Note 3 to the consolidated financial statements for further information about our cash.

Interest income from financial instruments owned was $209 million for the second quarter of 2018, essentially unchanged compared with the second quarter of 2017. Interest income from financial instruments owned includes interest income from U.S. government and agency obligations accounted for at fair value. See Note 4 to the consolidated financial statements for further information about financial instruments owned. Interest income from financial instruments owned also includes interest income from our loans and securities accounted for at fair value. See Notes 6 and 8 to the consolidated financial statements for further information about loans and securities accounted for at fair value.

Interest income from collateralized agreements was $82 million for the second quarter of 2018, 128% higher than the second quarter of 2017, due to higher average securities purchased under agreements to resell.

Other interest income was $151 million for the second quarter of 2018, 66% higher than the second quarter of 2017, due to higher average balances and higher interest rates. Other interest income includes interest income from loans accounted for as held for sale and collateral balances posted to counterparties.

Six Months Ended June 2018 versus June 2017

Interest income in the consolidated statements of earnings was $2.60 billion for the first half of 2018, 56% higher than the first half of 2017.

Interest income from loans receivable (excluding loans held for sale) was $1.25 billion for the first half of 2018, 79% higher than the first half of 2017, due to higher average balances and higher interest rates.

Interest income from deposits with banks was $524 million for the first half of 2018, 68% higher than the first half of 2017, due to higher interest rates on deposits held at the FRBNY.

Interest income from financial instruments owned was $422 million for the first half of 2018, 3% lower than the first half of 2017, due to lower average balances, partially offset by higher yields.

Interest income from collateralized agreements was $138 million for the first half of 2018, 103% higher than the first half of 2017, primarily due to due to higher average securities purchased under agreements to resell.

Other interest income was $262 million for the first half of 2018, 64% higher than the first half of 2017, due to higher average balances and higher interest rates. Other interest income includes interest income from loans accounted for as held for sale and collateral balances posted to counterparties.

Interest Expense

The table below presents our sources of interest expense.

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Deposits	**$ 574**	$ 279	**$ 1,031**	$ 528
Borrowings	**56**	21	**98**	41
Financial instruments sold, but not yet purchased	**14**	12	**32**	26
Collateralized financings	**14**	12	**28**	21
Other	**58**	88	**90**	212
Total interest expense	**$ 716**	$ 412	**$ 1,279**	$ 828

Three Months Ended June 2018 versus June 2017

Interest expense in the consolidated statements of earnings was $716 million for the second quarter of 2018, 74% higher than the second quarter of 2017. 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.

Interest expense from deposits was $574 million for the second quarter of 2018, 106% higher than the second quarter of 2017, due to higher interest rates and higher average balances.

Interest expense from borrowings was $56 million for the second quarter of 2018, 167% higher than the second quarter of 2017, due to higher average balances on borrowings from Goldman Sachs Funding LLC (Funding IHC), a wholly-owned subsidiary of Group Inc. formed in 2017, and the FHLB, in addition to higher interest rates. In May 2017, Group Inc. assigned the $2.00 billion outstanding subordinated loan agreement to Funding IHC.

Interest expense from financial instruments sold, but not yet purchased was $14 million for the second quarter of 2018, 17% higher than the second quarter of 2017, due to higher yields.

Interest expense from collateralized financings was $14 million for the second quarter of 2018, 17% higher than the second quarter of 2017, due to higher interest rates, partially offset by lower average balances.

Other interest expense was $58 million for the second quarter of 2018, 34% lower than the second quarter of 2017, primarily due to lower interest expense on net borrowings from a senior unsecured facility with Group Inc., partially offset by higher interest expense on collateral received from counterparties. Other interest expense primarily includes interest expense on collateral balances received from counterparties and interest expense on funding facilities.

Six Months Ended June 2018 versus June 2017

Interest expense in the consolidated statements of earnings was $1.28 billion for the first half of 2018, 54% higher than the first half of 2017.

Interest expense from deposits was $1.03 billion for the first half of 2018, 95% higher than the first half of 2017, due to higher interest rates and higher average balances.

Interest expense from borrowings was $98 million for the first half of 2018, 139% higher than the first half of 2017, due to higher average balances on borrowings from Funding IHC and the FHLB, in addition to higher interest rates.

Interest expense from financial instruments sold, but not yet purchased was $32 million for the first half of 2018, 23% higher than the first half of 2017, due to higher average balances and higher yields.

Interest expense from collateralized financings was $28 million for the first half of 2018, 33% higher than the first half of 2017, due to higher interest rates, partially offset by lower average balances.

Other interest expense was $90 million for the first half of 2018, 58% lower than the first half of 2017, primarily due to lower interest expense on net borrowings from a senior unsecured facility with Group Inc., partially offset by higher interest expense on collateral received from counterparties. Other interest expense primarily includes interest expense on collateral balances received from counterparties and interest expense on funding facilities.

Operating Expenses

Our operating expenses are primarily influenced by compensation, headcount and levels of business activity. Compensation and benefits includes salaries, estimated year-end 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. Another component of our operating expenses is service charges, which includes employment related costs of dual employees and employees of affiliates pursuant to the Master Services Agreement.

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

	Three Months Ended June		Six Months Ended June	
$ in millions	**2018**	2017	**2018**	2017
Compensation and benefits	**$ 186**	$ 74	**$ 311**	$ 163
Service charges	**107**	94	**209**	200
Market development	**58**	32	**115**	57
Professional fees	**26**	30	**57**	54
Brokerage, clearing, exchange and distribution fees	**25**	26	**52**	50
Other expenses	**135**	76	**265**	151
Total operating expenses	**$ 537**	$ 332	**$ 1,009**	$ 675
Total staff at period-end	**1,606**	992		

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 include expenses related to dual employees and employees of affiliates who provide services to us pursuant to the Master Services Agreement.
- Other expenses primarily include regulatory and agency fees, communication and technology, expenses related to the new revenue recognition standard ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)," and non-compensation expenses charged by affiliates who provide services to us pursuant to the Master Services Agreement.

Three Months Ended June 2018 versus June 2017

Operating expenses in the consolidated statements of earnings were $537 million for the second quarter of 2018, 62% higher than the second quarter of 2017.

Compensation and benefits expenses in the consolidated statements of earnings were $186 million for the second quarter of 2018, 151% higher than the second quarter of 2017, reflecting an increase in net revenues as well as an increase in total staff, primarily related to new business initiatives.

Service charges in the consolidated statements of earnings were $107 million for the second quarter of 2018, 14% higher than the second quarter of 2017, reflecting an increase in services received under the Master Services Agreement.

Market development expenses in the consolidated statements of earnings were $58 million for the second quarter of 2018, 81% higher than the second quarter of 2017, reflecting additional expenses primarily related to Marcus.

Professional fees in the consolidated statements of earnings were $26 million for the second quarter of 2018, 13% lower than the second quarter of 2017, primarily reflecting lower consultant fees.

Brokerage, clearing, exchange and distribution fees in the consolidated statements of earnings were $25 million for the second quarter of 2018, essentially unchanged compared with the second quarter of 2017.

Other expenses in the consolidated statements of earnings were $135 million for the second quarter of 2018, 78% higher than the second quarter of 2017. This increase included $19 million related to the new revenue recognition standard. See Note 3 to the consolidated financial statements for further information about ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." In addition, the increase reflected higher lending related expenses.

We expect operating expenses will continue to increase as we launch new business initiatives and grow our existing businesses.

Six Months Ended June 2018 versus June 2017

Operating expenses in the consolidated statements of earnings were $1.01 billion for the first half of 2018, 49% higher than the first half of 2017.

Compensation and benefits expenses in the consolidated statements of earnings were $311 million for the first half of 2018, 91% higher than the first half of 2017, reflecting an increase in net revenues as well as an increase in total staff, primarily related to new business initiatives.

Service charges in the consolidated statements of earnings were $209 million for the first half of 2018, 5% higher than the first half of 2017, reflecting an increase in services received under the Master Services Agreement.

Market development expenses in the consolidated statements of earnings were $115 million for the first half of 2018, 102% higher than the first half of 2017, reflecting additional expenses primarily related to Marcus.

Professional fees in the consolidated statements of earnings were $57 million for the first half of 2018, 6% higher than the first half of 2017, primarily reflecting higher legal fees.

Brokerage, clearing, exchange and distribution fees in the consolidated statements of earnings were $52 million for the first half of 2018, essentially unchanged compared with the first half of 2017.

Other expenses in the consolidated statements of earnings were $265 million for the first half of 2018, 75% higher than the first half of 2017. This increase included $37 million related to the new revenue recognition standard. See Note 3 to the consolidated financial statements for further information about ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." In addition, the increase reflected higher lending related expenses and higher non-compensation expenses charged by affiliates who provide services to us pursuant to the Master Services Agreement.

Provision for Taxes

The effective income tax rate for the first half of 2018 was 23.2%, down from the full year tax rate of 39.9% for 2017, as 2017 included the estimated impact of the Tax Cuts and Jobs Act (Tax Legislation), which increased our effective income tax rate by 485 basis points. Additionally, the decrease compared with the full year rate for 2017 reflected the impact of the lower U.S. corporate income tax rate in 2018. The estimated impact of Tax Legislation was an increase in income tax expense of $114 million for 2017. The impact of Tax Legislation may differ from this estimate, possibly materially, due to, among other things, (i) refinement of our calculations based on updated information, (ii) changes in our interpretations and assumptions, (iii) guidance that may be issued and (iv) actions we or Group Inc. may take as a result of Tax Legislation. During the six months ended June 2018, we did not make any material adjustments to this estimate. The effective income tax rate for the first half of 2018 was essentially unchanged compared with 24.1% for the first quarter of 2018.

Balance Sheet and Funding Sources

See "Balance Sheet and Funding Sources" in Part II of the 2017 Annual Report for further information about our balance sheet management process and our funding sources.

Balance Sheet Analysis and Metrics

As of June 2018, total assets in our consolidated statements of financial condition were $177.47 billion, an increase of $12.71 billion from December 2017, primarily reflecting increases in loans receivable of $9.49 billion and securities purchased under agreements to resell of $4.24 billion.

As of June 2018, total liabilities in our consolidated statements of financial condition were $150.90 billion, an increase of $11.68 billion from December 2017, primarily reflecting an increase in deposits of $12.08 billion, partially offset by a decrease in financial instruments sold, but not yet purchased of $3.37 billion.

Funding Sources

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

Deposits. Our deposits provide us with a diversified source of funding and reduce our reliance on wholesale funding. A growing portion of our deposit base consists of retail deposits. Deposits are primarily used to finance lending activity, other inventory and a portion of our global core liquid assets (GCLA). As of June 2018 and December 2017, our deposits were $127.98 billion and $115.89 billion, respectively.

The average annualized interest rate on our interest-bearing deposits was 1.89% and 1.02% for the second quarter of 2018 and 2017, respectively, and 1.69% and 0.96% for the first half of 2018 and 2017, respectively.

The table below presents the average annualized interest rate on each type of deposit.

	Three Months Ended June		Six Months Ended June	
	2018	2017	**2018**	2017
Savings and demand	**1.74%**	0.79%	**1.50%**	0.74%
Time	**2.12%**	1.43%	**2.01%**	1.44%

See "Supplemental Financial Information — Distributions of Assets, Liabilities, and Shareholder's Equity" and Note 14 to our consolidated financial statements for further information about deposits.

Collateralized Financings. We fund certain of our inventory on a secured basis by entering into collateralized financing agreements, such as repurchase agreements. We are also a member of the FHLB. Outstanding borrowings from the FHLB were $1.43 billion and $3.40 billion as of June 2018 and December 2017, respectively. See Note 10 to the 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 test the discount window borrowing procedures.

The table below presents our collateralized financings in the consolidated statements of financial condition.

	As of	
$ in millions	**June 2018**	December 2017
Securities sold under agreements to repurchase	**$ 782**	$ 56
Secured short-term borrowings	**1,051**	2,895
Secured long-term borrowings	**501**	607
Total	**$ 2,334**	$ 3,558

Unsecured Borrowings. We may raise funding through unsecured borrowings primarily from Funding IHC and Group Inc. Group Inc. raises non-deposit unsecured funding and lends to Funding IHC and other affiliates, including consolidated subsidiaries, such as us, to meet those entities' funding needs. This approach enhances the flexibility with which Funding IHC and Group Inc. can meet our and other Group Inc. subsidiaries' funding requirements. We may also raise funding through issuing senior unsecured debt. See Note 15 to the consolidated financial statements for further information about our unsecured borrowings.

In June 2018, the Bank issued $1.00 billion of senior unsecured debt, which matures in 2020. As of June 2018, the carrying value of the Bank's unsecured debt was $999 million, which approximated its fair value. The Bank pays interest semi-annually on the senior unsecured debt at an annual rate of 3.20%.

As of both June 2018 and December 2017, the Bank had a revolving subordinated loan agreement with Funding IHC, which expires in 2039. As of December 2017, this subordinated loan agreement had a $5.00 billion borrowing limit. In April 2018, this subordinated loan agreement was amended to remove the $5.00 billion borrowing limit. As of June 2018, outstanding subordinated borrowings under this agreement were $4.25 billion, of which $2.25 billion matures in 2028 and $2.00 billion matures in 2024. As of December 2017, outstanding subordinated borrowings under this agreement were $2.00 billion, maturing in 2024. See Note 15 to the consolidated financial statements for further information about our subordinated borrowings.

The table below presents our unsecured borrowings.

	As of	
	June	December
$ in millions	**2018**	2017
Unsecured short-term borrowings	**$ 72**	$ 2,085
Unsecured long-term borrowings	**5,383**	2,134
Total	**$ 5,455**	$ 4,219

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. See "Equity Capital Management and Regulatory Capital" in Part II of the 2017 Annual Report for further information about our equity capital management processes and regulatory capital requirement.

Restrictions on Payments

Our payment of dividends to Group Inc. is subject to certain restrictions. In addition to limitations on the payment of dividends imposed by federal and state laws, the FRB and the FDIC have the 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, pursuant to applicable FRB regulations (the amount of dividends paid should be limited to the lesser of the amounts calculated under a recent earnings test and an undivided profits test). During the six months ended June 2018, we did not pay a dividend to Group Inc. During 2017, we paid a dividend of $500 million. Under the FRB regulations referenced above, as of June 2018 and December 2017, we could have declared dividends up to $3.42 billion and $4.55 billion, respectively, to Group Inc.

Stress Testing Process

Our stress tests incorporate our internally designed stress scenarios, including our internally developed severely adverse scenario, and those required under Dodd-Frank Act Stress Tests (DFAST), and are designed to capture our specific vulnerabilities and risks. The rules adopted by the FRB under the U.S. Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) require us to conduct stress tests on an annual basis and publish a summary of our results. We submitted our 2018 annual DFAST results to the FRB in April 2018 and published a summary of our results in June 2018.

Regulatory Matters and Developments

See "Business — Regulation" in Part I of the 2017 Annual Report for further information about the laws, rules and regulations and proposed laws, rules and regulations that apply to us and our operations. In addition, see Note 18 to the consolidated financial statements for information about our risk-based capital ratios and leverage ratios.

Resolution Plan

We are required by the FDIC to submit periodic plans that describe our strategy for a rapid and orderly resolution in the event of material financial distress or failure (resolution plan). We submitted our resolution plan on June 28, 2018. See "Business — Regulation" in Part I of the 2017 Annual Report for further information about our resolution plan.

Other Regulatory Developments

In April 2018, the FRB issued a proposed rule, jointly with the Office of the Comptroller of Currency, which would replace the current 6% supplementary leverage ratio requirement for "well capitalized" status applicable for state member banks and national bank subsidiaries of global systemically important banks (G-SIB), including the Bank, with a requirement equal to 3% and an additional 50% of the applicable G-SIB surcharge of the subsidiary's G-SIB parent. The full impact of this proposal will not be known until the rule is finalized.

In addition, in April 2018, the FRB issued a proposed rule to establish stress buffer requirements for BHCs, such as Group Inc., that are subject to the FRB's Comprehensive Capital Analysis and Review process. This proposed rule would not affect the buffer requirements for insured depository institution subsidiaries of those BHCs, including the Bank.

Contractual Obligations

We have certain contractual obligations which require us to make future cash payments. These contractual obligations include our time deposits, secured long-term financings, unsecured long-term borrowings and contractual interest payments.

Our obligations to make future cash payments also include our commitments and guarantees related to off-balance-sheet arrangements, which are excluded from the table below. See Note 17 to the consolidated financial statements for further information about such commitments and guarantees.

Due to the uncertainty of the timing and amounts that will ultimately be paid, our liability for unrecognized tax benefits has been excluded from the table below. See Note 21 to the consolidated financial statements for further information about our unrecognized tax benefits.

The table below presents our contractual obligations by type.

	As of	
$ in millions	**June 2018**	December 2017
Time deposits	**$ 27,193**	$ 26,360
Secured long-term financings	**$ 501**	$ 607
Unsecured long-term borrowings	**$ 5,383**	$ 2,134
Contractual interest payments	**$ 2,135**	$ 2,089

The table below presents our contractual obligations by period of expiration.

	As of June 2018			
$ in millions	**Remainder of 2018**	**2019 - 2020**	**2021 - 2022**	**2023 - Thereafter**
Time deposits	**$ –**	**$ 11,483**	**$ 9,473**	**$ 6,237**
Secured long-term financings	**$ –**	**$ 501**	**$ –**	**$ –**
Unsecured long-term borrowings	**$ –**	**$ 1,133**	**$ –**	**$ 4,250**
Contractual interest payments	**$ 312**	**$ 1,071**	**$ 516**	**$ 236**

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. See Notes 10 and 15 to the consolidated financial statements for further information about our short-term borrowings.
- 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.
- 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 June 2018.

Risk Management

Risks are inherent in our businesses and include liquidity, market, credit, operational, model, legal, compliance, conduct, regulatory and reputational risks. 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 and our risk management processes, see "Risk Factors," "Overview and Structure of Risk Management," "Liquidity Risk Management," "Market Risk Management," "Credit Risk Management," "Operational Risk Management" and "Model Risk Management" in Parts I and II of the 2017 Annual Report.

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, GS Group, 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. See "Liquidity Risk Management" in Part II of the 2017 Annual Report for further information about our liquidity risk management process.

GCLA Metrics

GCLA is liquidity that we maintain to meet a broad range of potential cash outflows and collateral needs in a stressed environment. Based on the results of our internal liquidity risk models, 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 GS Group's, inclusive of our condition, as well as the financial markets, we believe our liquidity position as of both June 2018 and December 2017 was appropriate. We strictly limit our GCLA to a narrowly defined list of securities and cash 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.

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

	Average for the Three Months Ended	
$ in millions	**June 2018**	March 2018
Overnight cash deposits	**$ 60,069**	$ 67,304
U.S. government obligations	**9,531**	6,927
U.S. agency obligations	**8,395**	8,993
Non-U.S. government obligations	**170**	174
Total	**$ 78,165**	$ 83,398

GCLA is composed of (i) certain overnight U.S. dollar cash deposits, (ii) unencumbered U.S. government and agency obligations (including highly liquid U.S. agency mortgage-backed obligations), all of which are eligible as collateral in Federal Reserve open market operations and (iii) certain non-U.S. dollar-denominated government obligations.

Liquidity Regulatory Framework

We are subject to a minimum Liquidity Coverage Ratio (LCR) under the LCR rule approved by the U.S. federal bank regulatory agencies. The LCR rule requires organizations to maintain an adequate ratio of eligible high-quality liquid assets to expected net cash outflows under an acute short-term liquidity stress scenario. We are required to maintain a minimum LCR of 100%. As of June 2018, our LCR exceeded the minimum requirement.

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.

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

	As of June 2018		
	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**	**Negative**	**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.

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 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, prepayment speeds and credit spreads; and
- Currency rate risk: results from exposures to changes in spot prices, forward prices and volatilities of currency rates.

See “Market Risk Management” in Part II of the 2017 Annual Report for further information about our market risk management process.

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 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 by risk category.

	Three Months Ended			Six Months Ended June	
$ in millions	**June 2018**	March 2018	June 2017	**2018**	2017
Interest rates	**$ 20**	$ 21	$ 23	**$ 20**	$ 23
Currency rates	**3**	5	4	**4**	4
Diversification effect	**(3)**	(6)	(4)	**(4)**	(5)
Total	**$ 20**	$ 20	$ 23	**$ 20**	$ 22

Our average daily VaR remained unchanged at $20 million for the second quarter of 2018 compared with the first quarter of 2018, due to decreases in the currency rates and interest rates categories, offset by a decrease in the diversification effect. The overall decrease was primarily due to reduced exposures.

Our average daily VaR decreased to $20 million for the second quarter of 2018 from $23 million for the second quarter of 2017, due to decreases in the interest rates and currency rates categories, partially offset by a decrease in the diversification effect. The overall decrease was due to reduced exposures and lower levels of volatility.

Our average daily VaR decreased to $20 million for the six months ended June 2018 from $22 million for the six months ended June 2017, due to a decrease in the interest rates category, partially offset by a decrease in the diversification effect. The overall decrease was primarily due to reduced exposures.

The table below presents period-end VaR by risk category.

	As of		
$ in millions	**June 2018**	March 2018	June 2017
Interest rates	**$ 16**	$ 22	$ 16
Currency rates	**3**	5	4
Diversification effect	**(2)**	(6)	(3)
Total	**$ 17**	$ 21	$ 17

Our daily VaR decreased to $17 million as of June 2018 from $21 million as of March 2018, due to decreases in the interest rates and currency rates categories, partially offset by a decrease in the diversification effect. The overall decrease was primarily due to reduced exposures.

Our daily VaR remained unchanged at $17 million as of June 2018 compared with June 2017.

During the second quarter of 2018, our total VaR risk limit was not exceeded, raised or reduced.

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

$ in millions	Three Months Ended June 2018 High	Three Months Ended June 2018 Low
Interest rates	$ 27	$ 15
Currency rates	$ 8	$ 2

The high and low total VaR was $26 million and $15 million, respectively, for the three months ended June 2018.

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 by asset category for positions, accounted for at fair value, that are not included in VaR.

	As of		
$ in millions	June 2018	March 2018	June 2017
Equity	$ 38	$ 38	$ 32
Debt	743	739	831
Total	$ 781	$ 777	$ 863

In the table above:

- 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 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.
- Equity and debt funded positions are included in our consolidated statements of financial condition in financial instruments owned. See Note 6 to the consolidated financial statements for further information about cash instruments.
- These measures do not reflect the diversification effect across asset categories or across other market risk measures.

Interest Rate Sensitivity. The carrying value of loans receivable that are held for investment, net of allowance for loan losses as of June 2018 and March 2018 was $54.93 billion and $52.82 billion, respectively, substantially all of which had floating interest rates. As of June 2018 and March 2018, the estimated sensitivity to a 100 basis point increase in interest rates on such loans was $457 million and $447 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 June 2018 and March 2018, we had commitments and held loans for which we, and our affiliates, have obtained credit loss protection from Sumitomo Mitsui Financial Group, Inc. See Note 17 to the consolidated financial statements for further information about such lending commitments.

In addition, we make investments in securities that are accounted for as available-for-sale and included in financial instruments owned in the consolidated statements of financial condition. See Note 6 to the consolidated financial statements for further information.

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. See "Credit Risk Management" in Part II of the 2017 Annual Report for further information about our credit risk management process.

Credit Exposures

As of June 2018, our aggregate credit exposure increased as compared with December 2017, primarily reflecting an increase in loans and lending commitments. The percentage of our credit exposures arising from non-investment-grade counterparties (based on our internally determined public rating agency equivalents) increased as compared with December 2017, reflecting an increase in non-investment-grade loans and lending commitments. Our credit exposure to counterparties that defaulted during the six months ended June 2018 was lower as compared with our credit exposure to counterparties that defaulted during the same prior year period, and all of such exposure related to loans and lending commitments. Our credit exposure to counterparties that defaulted during the six months ended June 2018 remained low, representing less than 0.5% of our total credit exposure, and estimated losses were lower compared with the same prior year period and still not material. 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 deposit substantially all of our cash at the FRBNY.

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 (counterparty netting). Derivatives are accounted for at fair value, net of cash collateral received or posted under enforceable credit support agreements (cash collateral netting). 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 our credit exposure from OTC derivatives, and the related percentage concentration by industry and region.

	As of	
$ in millions	**June 2018**	December 2017
OTC Derivatives	**$ 6,115**	$ 8,543
Industry		
Consumer, Retail & Healthcare	**1%**	2%
Diversified Industrials	**6%**	7%
Financial Institutions	**23%**	29%
Funds	**12%**	10%
Municipalities & Nonprofit	**25%**	26%
Natural Resources & Utilities	**7%**	6%
Sovereign	**8%**	3%
Technology, Media & Telecommunications	**10%**	9%
Other (including Special Purpose Vehicles)	**8%**	8%
Total	**100%**	100%
Region		
Americas	**72%**	71%
Europe, Middle East and Africa	**23%**	26%
Asia	**5%**	3%
Total	**100%**	100%

The table below presents the distribution of our credit 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 June 2018			
Less than 1 year	**$ 3,982**	**$ 147**	**$ 4,129**
1 - 5 years	**11,088**	**339**	**11,427**
Greater than 5 years	**25,660**	**704**	**26,364**
Total	**40,730**	**1,190**	**41,920**
Netting	**(35,672)**	**(133)**	**(35,805)**
OTC derivative assets	**$ 5,058**	**$ 1,057**	**$ 6,115**
Net credit exposure	**$ 4,329**	**$ 1,047**	**$ 5,376**
As of December 2017			
Less than 1 year	$ 5,092	$ 207	$ 5,299
1 - 5 years	10,145	596	10,741
Greater than 5 years	26,961	798	27,759
Total	42,198	1,601	43,799
Netting	(35,121)	(135)	(35,256)
OTC derivative assets	$ 7,077	$ 1,466	$ 8,543
Net credit exposure	$ 5,999	$ 1,454	$ 7,453

In the table above:

- Tenor is based on remaining contractual maturity.
- Counterparty netting within the same tenor category is included within such tenor category. Counterparty netting across tenor categories and cash collateral received under enforceable credit support agreements are included in netting.
- Net credit exposure represents OTC derivative assets, included in financial instruments owned, less cash collateral and the fair value of securities collateral, primarily U.S. 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 credit 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 June 2018					
Less than 1 year	**$ 564**	**$ 669**	**$ 2,296**	**$ 453**	**$ 3,982**
1 - 5 years	**154**	**1,469**	**5,925**	**3,540**	**11,088**
Greater than 5 years	**545**	**2,720**	**16,887**	**5,508**	**25,660**
Total	**1,263**	**4,858**	**25,108**	**9,501**	**40,730**
Netting	**(224)**	**(3,396)**	**(23,017)**	**(9,035)**	**(35,672)**
OTC derivative assets	**$ 1,039**	**$ 1,462**	**$ 2,091**	**$ 466**	**$ 5,058**
Net credit exposure	**$ 958**	**$ 1,174**	**$ 1,774**	**$ 423**	**$ 4,329**
As of December 2017					
Less than 1 year	$ 133	$ 1,113	$ 3,257	$ 589	$ 5,092
1 - 5 years	339	461	7,228	2,117	10,145
Greater than 5 years	746	3,759	16,561	5,895	26,961
Total	1,218	5,333	27,046	8,601	42,198
Netting	(264)	(2,829)	(24,030)	(7,998)	(35,121)
OTC derivative assets	$ 954	$ 2,504	$ 3,016	$ 603	$ 7,077
Net credit exposure	$ 954	$ 2,051	$ 2,445	$ 549	$ 5,999

	Non-Investment-Grade / Unrated		
$ in millions	BB or lower	Unrated	Total
As of June 2018			
Less than 1 year	**$ 121**	**$ 26**	**$ 147**
1 - 5 years	**330**	**9**	**339**
Greater than 5 years	**703**	**1**	**704**
Total	**1,154**	**36**	**1,190**
Netting	**(133)**	**–**	**(133)**
OTC derivative assets	**$ 1,021**	**$ 36**	**$ 1,057**
Net credit exposure	**$ 1,011**	**$ 36**	**$ 1,047**
As of December 2017			
Less than 1 year	$ 164	$ 43	$ 207
1 - 5 years	596	–	596
Greater than 5 years	798	–	798
Total	1,558	43	1,601
Netting	(135)	–	(135)
OTC derivative assets	$ 1,423	$ 43	$ 1,466
Net credit exposure	$ 1,411	$ 43	$ 1,454

Lending Activities. We manage our lending activities using the credit risk process, measures, limits and risk mitigants described above. Other lending positions, including secondary trading positions, are risk-managed as a component of market risk.

- **Commercial Lending.** Our commercial lending activities include lending to investment-grade and non-investment-grade 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 commercial lending activities also include extending loans to borrowers that are secured by commercial and other real estate.

The table below presents our credit exposure from commercial loans and lending commitments, and the related percentage concentration by industry, region and credit quality.

$ in millions	As of June 2018	As of December 2017
Loans and Lending Commitments	**$ 162,158**	$ 141,000
Industry		
Consumer, Retail & Healthcare	**21%**	22%
Diversified Industrials	**14%**	12%
Financial Institutions	**8%**	8%
Funds	**3%**	4%
Natural Resources & Utilities	**15%**	15%
Real Estate	**9%**	10%
Technology, Media & Telecommunications	**19%**	18%
Other (including Special Purpose Vehicles)	**11%**	11%
Total	**100%**	100%
Region		
Americas	**83%**	81%
Europe, Middle East and Africa	**15%**	17%
Asia	**2%**	2%
Total	**100%**	100%
Credit Quality (Credit Rating Equivalent)		
AAA	**2%**	2%
AA	**5%**	6%
A	**18%**	19%
BBB	**32%**	32%
BB or lower	**43%**	41%
Total	**100%**	100%

- **PWM and Retail Lending.** We extend loans and lending commitments to PWM clients that are primarily secured by securities, commercial and residential real estate or other assets. The fair value of the collateral received against such loans and lending commitments generally exceeds their carrying value.

  In addition, we extend unsecured consumer loans to retail clients through Marcus. See Note 9 to the consolidated financial statements for further information about the credit quality indicators of such loans.

  We also have other retail lending exposures which include purchased loans primarily backed by residential real estate.

The table below presents our credit exposure from PWM, Marcus and other retail lending, and the related percentage concentration by region.

$ in millions	PWM	Marcus	Other Retail Lending
As of June 2018			
Credit Exposure	**$ 23,910**	**$ 3,120**	**$ 2,661**
Americas	**98%**	**100%**	**100%**
Europe, Middle East and Africa	**1%**	**–**	**–**
Asia	**1%**	**–**	**–**
Total	**100%**	**100%**	**100%**
As of December 2017			
Credit Exposure	$ 22,759	$ 1,912	$ 1,388
Americas	98%	100%	100%
Europe, Middle East and Africa	1%	–	–
Asia	1%	–	–
Total	100%	100%	100%

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 agency obligations. We had $17 million and $36 million as of June 2018 and December 2017, 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 primarily consist 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.

The table below presents our other credit exposures, and the related percentage concentration by industry, region and credit quality.

	As of	
	June	December
$ in millions	2018	2017
Other Credit Exposures	**$ 3,217**	$ 2,888
Industry		
Financial Institutions	**92%**	94%
Funds	**6%**	4%
Other (including Special Purpose Vehicles)	**2%**	2%
Total	**100%**	100%
Region		
Americas	**13%**	18%
Europe, Middle East and Africa	**87%**	82%
Total	**100%**	100%
Credit Quality (Credit Rating Equivalent)		
AAA	**1%**	1%
AA	**90%**	85%
A	**8%**	13%
BBB	**1%**	1%
Total	**100%**	100%

The table above reflects collateral that management considers when determining credit risk.

Operational Risk Management

Overview

Operational risk is the risk of an adverse outcome resulting from inadequate or failed internal processes, people, 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. See "Operational Risk Management" in Part II of the 2017 Annual Report for further information about our operational risk management process.

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 financial liabilities, to monitor and manage our risk, and to measure and monitor our regulatory capital. See "Model Risk Management" in Part II of the 2017 Annual Report for further information about our model risk management process.

Cautionary Statement

In the preceding discussion and analysis of our financial condition and results of operations, 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 conditions 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 and various legal proceedings, governmental investigations or mortgage-related contingencies as set forth in Notes 17 and 23, respectively, to the consolidated financial statements in Part I of this Quarterly Report. These statements may also include statements about the results of the Dodd-Frank Act stress test and our 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 for our businesses, statements about our future status, activities or reporting under U.S. or non-U.S. banking and financial regulation and statements about the estimated effects of Tax Legislation.

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 the 2017 Annual Report.