UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

☑ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Quarterly Period Ended June 30, 2023

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number:
1-6523

Exact name of registrant as specified in its charter:
Bank of America Corporation

State or other jurisdiction of incorporation or organization:
Delaware

IRS Employer Identification No.:
56-0906609

Address of principal executive offices:
Bank of America Corporate Center
100 N. Tryon Street
Charlotte, North Carolina 28255

Registrant's telephone number, including area code:
(704) 386-5681

Former name, former address and former fiscal year, if changed since last report:

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	BAC	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of Floating Rate Non-Cumulative Preferred Stock, Series E	BAC PrE	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 6.000% Non-Cumulative Preferred Stock, Series GG	BAC PrB	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 5.875% Non-Cumulative Preferred Stock, Series HH	BAC PrK	New York Stock Exchange
7.25% Non-Cumulative Perpetual Convertible Preferred Stock, Series L	BAC PrL	New York Stock Exchange
Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 1	BML PrG	New York Stock Exchange

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 2	BML PrH	New York Stock Exchange
Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 4	BML PrJ	New York Stock Exchange
Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 5	BML PrL	New York Stock Exchange
Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIII (and the guarantee related thereto)	BAC/PF	New York Stock Exchange
5.63% Fixed to Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIV (and the guarantee related thereto)	BAC/PG	New York Stock Exchange
Income Capital Obligation Notes initially due December 15, 2066 of Bank of America Corporation	MER PrK	New York Stock Exchange
Senior Medium-Term Notes, Series A, Step Up Callable Notes, due November 28, 2031 of BofA Finance LLC (and the guarantee of the Registrant with respect thereto)	BAC/31B	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 5.375% Non-Cumulative Preferred Stock, Series KK	BAC PrM	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 5.000% Non-Cumulative Preferred Stock, Series LL	BAC PrN	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 4.375% Non-Cumulative Preferred Stock, Series NN	BAC PrO	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 4.125% Non-Cumulative Preferred Stock, Series PP	BAC PrP	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 4.250% Non-Cumulative Preferred Stock, Series QQ	BAC PrQ	New York Stock Exchange
Depositary Shares, each representing a 1/1,000th interest in a share of 4.750% Non-Cumulative Preferred Stock, Series SS	BAC PrS	New York Stock Exchange

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Exchange Act Rule 12b-2).

Yes ☐ No ☑

On July 28, 2023, there were 7,946,371,758 shares of Bank of America Corporation Common Stock outstanding.

Bank of America Corporation and Subsidiaries
June 30, 2023
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Part I. Financial Information

Part II. Other Information

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Bank of America Corporation (the "Corporation") and its management may make certain statements that constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as "anticipates," "targets," "expects," "hopes," "estimates," "intends," "plans," "goals," "believes," "continue" and other similar expressions or future or conditional verbs such as "will," "may," "might," "should," "would" and "could." Forward-looking statements represent the Corporation's current expectations, plans or forecasts of its future results, revenues, liquidity, net interest income, provision for credit losses, expenses, efficiency ratio, capital measures, strategy, deposits, assets, and future business and economic conditions more generally, and other future matters. These statements are not guarantees of future results or performance and involve certain known and unknown risks, uncertainties and assumptions that are difficult to predict and are often beyond the Corporation's control. Actual outcomes and results may differ materially from those expressed in, or implied by, any of these forward-looking statements.

You should not place undue reliance on any forward-looking statement and should consider the following uncertainties and risks, as well as the risks and uncertainties more fully discussed under Item 1A. Risk Factors of the Corporation's 2022 Annual Report on Form 10-K and in any of the Corporation's subsequent Securities and Exchange Commission filings: the Corporation's potential judgments, orders, settlements, penalties, fines and reputational damage resulting from pending or future litigation and regulatory investigations, proceedings and enforcement actions, including as a result of our participation in and execution of government programs related to the Coronavirus Disease 2019 (COVID-19) pandemic, such as the processing of unemployment benefits for California and certain other states; the possibility that the Corporation's future liabilities may be in excess of its recorded liability and estimated range of possible loss for litigation, and regulatory and government actions; the possibility that the Corporation could face increased claims from one or more parties involved in mortgage securitizations; the Corporation's ability to resolve representations and warranties repurchase and related claims; the risks related to the discontinuation of the London Interbank Offered Rate and other reference rates, including increased expenses and litigation and the effectiveness of hedging strategies; uncertainties about the financial stability and growth rates of non-U.S. jurisdictions, the risk that those jurisdictions may face difficulties servicing their sovereign debt, and related stresses on financial markets, currencies and trade, and the Corporation's exposures to such risks, including direct, indirect and operational; the impact of U.S. and global interest rates, inflation, currency exchange rates, economic conditions, trade policies and tensions, including tariffs, and potential geopolitical instability; the impact of the interest rate, inflationary, macroeconomic, banking and regulatory environment on the Corporation's assets, business, financial condition and results of operations; the impact of adverse developments affecting the U.S. or global banking industry, including bank failures and liquidity concerns, resulting in worsening economic and market volatility, and regulatory responses thereto; the possibility that future credit losses may be higher than currently expected due to changes in economic assumptions, customer behavior, adverse developments with respect to U.S. or global economic conditions and other uncertainties, including the impact of supply chain disruptions, inflationary pressures and labor shortages on economic conditions and our business; potential losses related to the Corporation's concentration of credit risk; the Corporation's ability to achieve its expense targets and expectations regarding revenue, net interest income, provision for credit losses, net charge-offs, effective tax rate, loan growth or other projections; adverse changes to the Corporation's credit ratings from the major credit rating agencies; an inability to access capital markets or maintain deposits or borrowing costs; estimates of the fair value and other accounting values, subject to impairment assessments, of certain of the Corporation's assets and liabilities; the estimated or actual impact of changes in accounting standards or assumptions in applying those standards; uncertainty regarding the content, timing and impact of regulatory capital and liquidity requirements; the impact of adverse changes to total loss-absorbing capacity requirements, stress capital buffer requirements and/or global systemically important bank surcharges; the potential impact of actions of the Board of Governors of the Federal Reserve System on the Corporation's capital plans; the effect of changes in or interpretations of income tax laws and regulations; the impact of implementation and compliance with U.S. and international laws, regulations and regulatory interpretations, including, but not limited to, recovery and resolution planning requirements, Federal Deposit Insurance Corporation assessments, the Volcker Rule, fiduciary standards, derivatives regulations and potential changes to loss allocations between financial institutions and customers, including for losses incurred from the use of our products and services, including Zelle, that were authorized by the customer but induced by fraud; a failure or disruption in or breach of the Corporation's operational or security systems, data or infrastructure, or those of third parties, including as a result of cyberattacks or campaigns; the risks related to the transition and physical impacts of climate change; our ability to achieve environmental, social and governance goals and commitments or the impact of any changes in the Corporation's sustainability strategy or commitments generally; the impact of any future federal government shutdown and uncertainty regarding the federal government's debt limit or changes in fiscal, monetary or regulatory policy;the emergence or continuation of widespread health emergencies or pandemics; the impact of natural disasters, extreme weather events, military conflict (including the Russia/Ukraine conflict, the possible expansion of such conflict *and potential geopolitical consequences), terrorism or other geopolitical events; and other matters.*

Forward-looking statements speak only as of the date they are made, and the Corporation undertakes no obligation to update any forward-looking statement to reflect the impact of circumstances or events that arise after the date the forward-looking statement was made.

Notes to the Consolidated Financial Statements referred to in Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) are incorporated by reference into the MD&A. Certain prior-period amounts have been reclassified to conform to current-period presentation. Throughout the MD&A, the Corporation uses certain acronyms and abbreviations which are defined in the Glossary.

Executive Summary

Business Overview

The Corporation is a Delaware corporation, a bank holding company (BHC) and a financial holding company. When used in this report, "Bank of America," "the Corporation," "we," "us" and "our" may refer to Bank of America Corporation individually, Bank of America Corporation and its subsidiaries, or certain of Bank of America Corporation's subsidiaries or affiliates. Our principal executive offices are located in Charlotte, North Carolina. Through our various bank and nonbank subsidiaries throughout the U.S. and in international markets, we provide a diversified range of banking and nonbank financial services and products through four business segments: *Consumer Banking*, *Global Wealth & Investment Management (GWIM)*, *Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. We operate our banking activities primarily under the Bank of America, National Association (Bank of America, N.A. or BANA) charter. At June 30, 2023, the Corporation had $3.1 trillion in assets and a headcount of approximately 216,000 employees.

As of June 30, 2023, we served clients through operations across the U.S., its territories and more than 35 countries. Our retail banking footprint covers all major markets in the U.S., and we serve approximately 68 million consumer and small business clients with approximately 3,900 retail financial centers, approximately 15,000 ATMs, and leading digital banking platforms (www.bankofamerica.com) with approximately 46 million active users, including approximately 37 million active mobile users. We offer industry-leading support to approximately four million small business households. Our *GWIM* businesses, with client balances of $3.6 trillion, provide tailored solutions to meet client needs through a full set of investment management, brokerage, banking, trust and retirement products. We are a global leader in corporate and investment banking and trading across a broad range of asset classes serving corporations, governments, institutions and individuals around the world.

The Corporation's website is www.bankofamerica.com, and the Investor Relations portion of our website is https://investor.bankofamerica.com. We use our website to distribute company information, including as a means of disclosing material, non-public information and for complying with our disclosure obligations under Regulation FD. We routinely post and make accessible financial and other information, including environmental, social and governance (ESG) information, regarding the Corporation on our website. Investors should monitor our website, including the Investor Relations portion, in addition to our press releases, U.S. Securities and Exchange Commission (SEC) filings, public conference calls and webcasts. Notwithstanding the foregoing, the information contained on our website as referenced in this paragraph is not incorporated by reference into this Quarterly Report on Form 10-Q.

Recent Developments

Capital Management

The Board of Governors of the Federal Reserve System (Federal Reserve) requires BHCs to submit a capital plan and planned capital actions on an annual basis, consistent with the rules governing the Comprehensive Capital Analysis and Review (CCAR) capital plan. On July 27, 2023, the Federal Reserve released final 2023 CCAR supervisory stress test results for Bank of America. Based on the results, our stress capital buffer (SCB) will be 2.5 percent, 90 basis points (bps) lower than the current level of 3.4 percent, and our Common equity tier 1 (CET1) minimum requirement will decline to 9.5 percent effective October 1, 2023. Beginning January 1, 2024, we expect our minimum CET1 requirement to increase 50 bps, aligned with planned growth in the global systemically important bank (G-SIB) surcharge.

On July 27, 2023, U.S. banking regulators issued proposed rules that would update future U.S. regulatory capital requirements, including the calculation of risk-weighted assets and the G-SIB surcharge. Under the capital proposal, the requirements would be phased in over three years beginning July 1, 2025. The Corporation is evaluating the impact of the proposed rules on its regulatory capital.

On July 19, 2023, the Corporation's Board of Directors (the Board) declared a quarterly common stock dividend of $0.24 per share, an increase of nine percent compared to the prior dividend rate, payable on September 29, 2023 to shareholders of record as of September 1, 2023.

For more information on our capital resources, see Capital Management on page 22.

FDIC Special Assessment

On May 11, 2023, the Federal Deposit Insurance Corporation (FDIC) issued a proposed rule that would impose a special assessment to recover the loss to the Deposit Insurance Fund arising from the protection of uninsured depositors of Silicon Valley Bank and Signature Bank associated with their closures, and the systemic risk determination announced by the FDIC on March 12, 2023. While the timing and amount of any expense recognition are unknown until the proposed rule is finalized, if the final rule is issued as proposed, the estimated impact of the special assessment on the Corporation would be a noninterest expense of approximately $1.9 billion that would be recognized upon finalization of the rule. For more information, see *Note 10 – Commitments and Contingencies* to the Consolidated Financial Statements.

LIBOR and Other Benchmark Rates

Immediately after June 30, 2023, the remaining U.S. dollar (USD) London Interbank Offered Rate (LIBOR) settings (i.e., overnight, one month, three month, six month and 12 month) ceased or became non-representative (LIBOR Cessation), although the Financial Conduct Authority (FCA) is requiring LIBOR's administrator, ICE Benchmark Administration Limited, to continue publication of the one-month, three-month and six-month USD LIBOR settings on a "synthetic" basis (calculated using the relevant CME Term SOFR Reference Rate plus the respective International Swaps and Derivatives Association fixed spread adjustment) for use in legacy contracts, which publication the FCA intends will continue until September 30,

2024. The Corporation will continue to monitor developments related to ongoing benchmark reform and the transition to alternative reference rates (ARRs) for expected impact on the Corporation and financial markets more broadly.

In connection with LIBOR Cessation, the Corporation has substantially completed the transition process for its products and contracts referencing USD LIBOR to ARRs, subject to certain remaining notional contractual exposures not significant to the Corporation. For the insignificant amount of products and contracts that have temporarily transitioned to synthetic USD LIBOR, the Corporation expects to transition these exposures to ARRs consistent with the temporary nature of synthetic USD LIBOR.

Additionally, in connection with LIBOR Cessation, certain central counterparties completed processes to convert outstanding USD LIBOR-cleared derivatives to ARR positions. In March 2023 and June 2023, the Corporation made announcements regarding the transition paths away from either USD LIBOR or the USD LIBOR ICE Swap Rate, as applicable, for certain outstanding securities issued by the Corporation, BofA Finance LLC and certain other affiliated issuers. For more information on those announcements, see the Corporation's Current Reports on Form 8-K filed with the SEC on March 31, 2023 and June 26, 2023.

As previously disclosed, as a result of the transition of Interbank Offered Rate-based products and contracts to various ARRs, including the Secured Overnight Financing Rate (SOFR), the Corporation has begun using ARRs in its baseline forecast of net interest income. For more information, see Interest Rate Risk Management for the Banking Book on page 45.

For more information on the replacement of LIBOR and other benchmark rates, including the Corporation's efforts in connection with the replacement of LIBOR and other benchmark rates, see Executive Summary – Recent Developments – LIBOR and Other Benchmark Rates in the MD&A and Item 1A. Risk Factors – Other of the Corporation's 2022 Annual Report on Form 10-K, which discusses the Corporation's risks related to the replacement of LIBOR and other benchmark rates, including risks related to litigation claims or other disputes with respect to the transition path for a particular product or contract.

Financial Highlights

Table 1 Summary Income Statement and Selected Financial Data

(Dollars in millions, except per share information)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Income statement				
Net interest income	**$ 14,158**	$ 12,444	**$ 28,606**	$ 24,016
Noninterest income	**11,039**	10,244	**22,849**	21,900
Total revenue, net of interest expense	**25,197**	22,688	**51,455**	45,916
Provision for credit losses	**1,125**	523	**2,056**	553
Noninterest expense	**16,038**	15,273	**32,276**	30,592
Income before income taxes	**8,034**	6,892	**17,123**	14,771
Income tax expense	**626**	645	**1,554**	1,457
Net income	**7,408**	6,247	**15,569**	13,314
Preferred stock dividends	**306**	315	**811**	782
Net income applicable to common shareholders	**$ 7,102**	$ 5,932	**$ 14,758**	$ 12,532
Per common share information				
Earnings	**$ 0.88**	$ 0.73	**$ 1.83**	$ 1.54
Diluted earnings	**0.88**	0.73	**1.82**	1.53
Dividends paid	**0.22**	0.21	**0.44**	0.42
Performance ratios				
Return on average assets [(1)]	**0.94 %**	0.79 %	**1.00 %**	0.84 %
Return on average common shareholders' equity [(1)]	**11.21**	9.93	**11.84**	10.48
Return on average tangible common shareholders' equity [(2)]	**15.49**	14.05	**16.42**	14.78
Efficiency ratio [(1)]	**63.65**	67.32	**62.73**	66.63
			June 30 2023	**December 31 2022**
Balance sheet				
Total loans and leases			**$ 1,051,224**	$ 1,045,747
Total assets			**3,123,198**	3,051,375
Total deposits			**1,877,209**	1,930,341
Total liabilities			**2,839,879**	2,778,178
Total common shareholders' equity			**254,922**	244,800
Total shareholders' equity			**283,319**	273,197

(1) For definitions, see Key Metrics on page 105.

(2) Return on average tangible common shareholders' equity is a non-GAAP financial measure. For more information and a corresponding reconciliation to the most closely related financial measures defined by accounting principles generally accepted in the United States of America (GAAP), see Non-GAAP Reconciliations on page 48.

Net income was $7.4 billion and $15.6 billion, or $0.88 and $1.82 per diluted share, for the three and six months ended June 30, 2023 compared to $6.2 billion and $13.3 billion, or $0.73 and $1.53 per diluted share, for the same periods in 2022. The increase in net income was primarily due to higher net interest income and noninterest income, partially offset by higher noninterest expense and provision for credit losses.

Total assets increased $71.8 billion from December 31, 2022 to $3.1 trillion primarily driven by higher cash and cash equivalents due to sales and paydowns of debt securities to support balance sheet and liquidity positioning and higher trading account assets in *Global Markets*.

Total liabilities increased $61.7 billion from December 31, 2022 to $2.8 trillion primarily driven by higher securities financing activity and short-term borrowings to support balance sheet and liquidity positioning, partially offset by lower deposits primarily due to an increase in customer debt payments, customers' movement of balances to higher yielding investment alternatives and seasonal outflows.

Shareholders' equity increased $10.1 billion from December 31, 2022 primarily due to an increase in net income, partially offset by returns of capital to shareholders through common and preferred stock dividends and common stock repurchases.

Net Interest Income

Net interest income increased $1.7 billion to $14.2 billion, and $4.6 billion to $28.6 billion for the three and six months ended June 30, 2023 compared to the same periods in 2022. Net interest yield on a fully taxable-equivalent (FTE) basis increased 20 bps to 2.06 percent and 36 bps to 2.13 percent for the three and six months ended June 30, 2023. The increases were primarily driven by benefits from higher interest rates, including lower premium amortization expense and loan growth, partially offset by higher funding costs, including increased rates paid on deposits, and lower net interest income related to *Global Markets* activity. For more information on net interest yield and FTE basis, see Supplemental Financial Data on page 7, and for more information on interest rate risk management, see Interest Rate Risk Management for the Banking Book on page 45.

Noninterest Income

Table 2 Noninterest Income

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2023**	2022	**2023**	2022
Fees and commissions:				
Card income	**$ 1,546**	$ 1,555	**$ 3,015**	$ 2,958
Service charges	**1,364**	1,717	**2,774**	3,550
Investment and brokerage services	**3,839**	4,091	**7,691**	8,383
Investment banking fees	**1,212**	1,128	**2,375**	2,585
Total fees and commissions	**7,961**	8,491	**15,855**	17,476
Market making and similar activities	**3,697**	2,717	**8,409**	5,955
Other income	**(619)**	(964)	**(1,415)**	(1,531)
Total noninterest income	**$ 11,039**	$ 10,244	**$ 22,849**	$ 21,900

Noninterest income increased $795 million to $11.0 billion and $949 million to $22.8 billion for the three and six months ended June 30, 2023 compared to the same periods in 2022. The following highlights the significant changes.

- Service charges decreased $353 million and $776 million primarily driven by the impact of non-sufficient funds and overdraft policy changes as well as lower treasury service charges.
- Investment and brokerage services decreased $252 million and $692 million primarily driven by lower asset management fees and brokerage fees due to lower average equity and fixed income market levels and transactional volumes, partially offset by the impact of positive assets under management (AUM) flows.
- Investment banking fees increased $84 million for the three-month period primarily due to higher equity issuance fees, partially offset by lower debt issuance and advisory fees. The six-month period decreased $210 million primarily due to lower debt issuance and advisory fees, partially offset by higher equity issuance fees.
- Market making and similar activities increased $980 million and $2.5 billion primarily driven by improved trading in credit and macro products in fixed income, currencies and commodities (FICC) and by the impact of higher interest rates on client financing activities in Equities.
- Other income increased $345 million and $116 million primarily due to certain negative valuation adjustments in the prior-year periods, partially offset by losses on sales of available-for-sale (AFS) debt securities in the current-year periods.

Provision for Credit Losses

The provision for credit losses increased $602 million to $1.1 billion and $1.5 billion to $2.1 billion for the three and six months ended June 30, 2023 compared to the same periods in 2022. The provision for credit losses for the current-year periods was driven by our consumer portfolio primarily due to credit card loan growth and asset quality, partially offset by certain improved macroeconomic conditions that primarily benefited our commercial portfolio. For the same periods in the prior year, the provision for credit losses was primarily driven by loan growth and a dampened macroeconomic outlook, partially offset by asset quality improvement and reduced COVID-19 pandemic uncertainties. In addition, the six-month period in the prior year was also driven by a reserve build related to Russian exposure. For more information on the provision for credit losses, see Allowance for Credit Losses on page 41.

Noninterest Expense

Table 3 Noninterest Expense

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Compensation and benefits	**$ 9,401**	$ 8,917	**$ 19,319**	$ 18,399
Occupancy and equipment	**1,776**	1,748	**3,575**	3,508
Information processing and communications	**1,644**	1,535	**3,341**	3,075
Product delivery and transaction related	**956**	924	**1,846**	1,857
Marketing	**513**	463	**971**	860
Professional fees	**527**	518	**1,064**	968
Other general operating	**1,221**	1,168	**2,160**	1,925
Total noninterest expense	**$ 16,038**	$ 15,273	**$ 32,276**	$ 30,592

Noninterest expense increased $765 million to $16.0 billion and $1.7 billion to $32.3 billion for the three and six months ended June 30, 2023 compared to the same periods in 2022. The increases were primarily due to higher investments in people and technology, FDIC expense and certain taxes, partially offset by lower revenue-related compensation.

Income Tax Expense

Table 4 Income Tax Expense

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Income before income taxes	**$ 8,034**	$ 6,892	**$ 17,123**	$ 14,771
Income tax expense	**626**	645	**1,554**	1,457
Effective tax rate	**7.8 %**	9.4 %	**9.1 %**	9.9 %

The effective tax rates for the three and six months ended June 30, 2023 and 2022 were primarily driven by our recurring tax preference benefits that mainly consist of tax credits from ESG investments in affordable housing and renewable energy. Absent the ESG tax credits and discrete tax benefits, the effective tax rates would have been 26 percent for the three months ended June 30, 2023 and 2022, and 26 percent and 25 percent for the six months ended June 30, 2023 and 2022.

Supplemental Financial Data

Non-GAAP Financial Measures

In this Form 10-Q, we present certain non-GAAP financial measures. Non-GAAP financial measures exclude certain items or otherwise include components that differ from the most directly comparable measures calculated in accordance with GAAP. Non-GAAP financial measures are provided as additional useful information to assess our financial condition, results of operations (including period-to-period operating performance) or compliance with prospective regulatory requirements. These non-GAAP financial measures are not intended as a substitute for GAAP financial measures and may not be defined or calculated the same way as non-GAAP financial measures used by other companies.

When presented on a consolidated basis, we view net interest income on an FTE basis as a non-GAAP financial measure. To derive the FTE basis, net interest income is adjusted to reflect tax-exempt income on an equivalent before-tax basis with a corresponding increase in income tax expense. For purposes of this calculation, we use the federal statutory tax rate of 21 percent and a representative state tax rate. Net interest yield, which measures the basis points we earn over the cost of funds, utilizes net interest income on an FTE basis. We believe that presentation of these items on an FTE basis allows for comparison of amounts from both taxable and tax-exempt sources and is consistent with industry practices.

We may present certain key performance indicators and ratios excluding certain items (e.g., debit valuation adjustment (DVA) gains (losses)), which result in non-GAAP financial measures. We believe that the presentation of measures that exclude these items is useful because such measures provide additional information to assess the underlying operational performance and trends of our businesses and to allow better comparison of period-to-period operating performance.

We also evaluate our business based on certain ratios that utilize tangible equity, a non-GAAP financial measure. Tangible equity represents shareholders' equity or common shareholders' equity reduced by goodwill and intangible assets (excluding mortgage servicing rights (MSRs)), net of related deferred tax liabilities ("adjusted" shareholders' equity or common shareholders' equity). These measures are used to evaluate our use of equity. In addition, profitability, relationship and investment models use both return on average tangible common shareholders' equity and return on average tangible shareholders' equity as key measures to support our overall growth objectives. These ratios are:

- Return on average tangible common shareholders' equity measures our net income applicable to common shareholders as a percentage of adjusted average common shareholders' equity. The tangible common equity ratio represents adjusted ending common shareholders' equity divided by total tangible assets.
- Return on average tangible shareholders' equity measures our net income as a percentage of adjusted average total shareholders' equity. The tangible equity ratio represents adjusted ending shareholders' equity divided by total tangible assets.
- Tangible book value per common share represents adjusted ending common shareholders' equity divided by ending common shares outstanding.

We believe ratios utilizing tangible equity provide additional useful information because they present measures of those assets that can generate income. Tangible book value per common share provides additional useful information about the level of tangible assets in relation to outstanding shares of common stock.

The aforementioned supplemental data and performance measures are presented in Table 5 on page 8.

For more information on the reconciliation of these non-GAAP financial measures to the corresponding GAAP financial measures, see Non-GAAP Reconciliations on page 48.

Key Performance Indicators

We present certain key financial and nonfinancial performance indicators (key performance indicators) that management uses when assessing our consolidated and/or segment results. We believe they are useful to investors because they provide additional information about our underlying operational performance and trends. These key performance indicators (KPIs) may not be defined or calculated in the same way as similar KPIs used by other companies. For information on how these metrics are defined, see Key Metrics on page 105.

Our consolidated key performance indicators, which include various equity and credit metrics, are presented in Table 1 on page 4 and Table 5 on page 8.

For information on key segment performance metrics, see Business Segment Operations on page 11.

Table 5 Selected Financial Data

(In millions, except per share information)	2023 Quarters Second	2023 Quarters First	2022 Quarters Fourth	2022 Quarters Third	2022 Quarters Second	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Income statement							
Net interest income	**$ 14,158**	$ 14,448	$ 14,681	$ 13,765	$ 12,444	**$ 28,606**	$ 24,016
Noninterest income	**11,039**	11,810	9,851	10,737	10,244	**22,849**	21,900
Total revenue, net of interest expense	**25,197**	26,258	24,532	24,502	22,688	**51,455**	45,916
Provision for credit losses	**1,125**	931	1,092	898	523	**2,056**	553
Noninterest expense	**16,038**	16,238	15,543	15,303	15,273	**32,276**	30,592
Income before income taxes	**8,034**	9,089	7,897	8,301	6,892	**17,123**	14,771
Income tax expense	**626**	928	765	1,219	645	**1,554**	1,457
Net income	**7,408**	8,161	7,132	7,082	6,247	**15,569**	13,314
Net income applicable to common shareholders	**7,102**	7,656	6,904	6,579	5,932	**14,758**	12,532
Average common shares issued and outstanding	**8,040.9**	8,065.9	8,088.3	8,107.7	8,121.6	**8,053.5**	8,129.3
Average diluted common shares issued and outstanding	**8,080.7**	8,182.3	8,155.7	8,160.8	8,163.1	**8,162.6**	8,182.2
Performance ratios							
Return on average assets [1]	**0.94 %**	1.07 %	0.92 %	0.90 %	0.79 %	**1.00 %**	0.84 %
Four-quarter trailing return on average assets [2]	**0.96**	0.92	0.88	0.87	0.89	**n/a**	n/a
Return on average common shareholders' equity [1]	**11.21**	12.48	11.24	10.79	9.93	**11.84**	10.48
Return on average tangible common shareholders' equity [3]	**15.49**	17.38	15.79	15.21	14.05	**16.42**	14.78
Return on average shareholders' equity [1]	**10.52**	11.94	10.38	10.37	9.34	**11.22**	9.99
Return on average tangible shareholders' equity [3]	**14.00**	15.98	13.98	13.99	12.66	**14.97**	13.52
Total ending equity to total ending assets	**9.07**	8.77	8.95	8.77	8.65	**9.07**	8.65
Common equity ratio [1]	**8.16**	7.88	8.02	7.82	7.71	**8.16**	7.71
Total average equity to total average assets	**8.89**	8.95	8.87	8.73	8.49	**8.92**	8.44
Dividend payout [1]	**24.88**	23.17	25.71	27.06	28.68	**23.99**	27.20
Per common share data							
Earnings	**$ 0.88**	$ 0.95	$ 0.85	$ 0.81	$ 0.73	**$ 1.83**	$ 1.54
Diluted earnings	**0.88**	0.94	0.85	0.81	0.73	**1.82**	1.53
Dividends paid	**0.22**	0.22	0.22	0.22	0.21	**0.44**	0.42
Book value [1]	**32.05**	31.58	30.61	29.96	29.87	**32.05**	29.87
Tangible book value [3]	**23.23**	22.78	21.83	21.21	21.13	**23.23**	21.13
Market capitalization	**$ 228,188**	$ 228,012	$ 264,853	$ 242,338	$ 250,136	**$ 228,188**	$ 250,136
Average balance sheet							
Total loans and leases	**$ 1,046,608**	$ 1,041,352	$ 1,039,247	$ 1,034,334	$ 1,014,886		
Total assets	**3,175,358**	3,096,058	3,074,289	3,105,546	3,157,855		
Total deposits	**1,875,353**	1,893,649	1,925,544	1,962,775	2,012,079		
Long-term debt	**248,480**	244,759	243,871	250,204	245,781		
Common shareholders' equity	**254,028**	248,855	243,647	241,882	239,523		
Total shareholders' equity	**282,425**	277,252	272,629	271,017	268,197		
Asset quality							
Allowance for credit losses [4]	**$ 14,338**	$ 13,951	$ 14,222	$ 13,817	$ 13,434		
Nonperforming loans, leases and foreclosed properties [5]	**4,274**	4,083	3,978	4,156	4,326		
Allowance for loan and lease losses as a percentage of total loans and leases outstanding [5]	**1.24 %**	1.20 %	1.22 %	1.20 %	1.17 %		
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases [5]	**314**	319	333	309	288		
Net charge-offs	**$ 869**	$ 807	$ 689	$ 520	$ 571		
Annualized net charge-offs as a percentage of average loans and leases outstanding [5]	**0.33 %**	0.32 %	0.26 %	0.20 %	0.23 %		
Capital ratios at period end [6]							
Common equity tier 1 capital	**11.6 %**	11.4 %	11.2 %	11.0 %	10.5 %		
Tier 1 capital	**13.3**	13.1	13.0	12.8	12.3		
Total capital	**15.1**	15.0	14.9	14.7	14.2		
Tier 1 leverage	**7.1**	7.1	7.0	6.8	6.5		
Supplementary leverage ratio	**6.0**	6.0	5.9	5.8	5.5		
Tangible equity [3]	**7.0**	6.7	6.8	6.6	6.5		
Tangible common equity [3]	**6.1**	5.8	5.9	5.7	5.6		
Total loss-absorbing capacity and long-term debt metrics							
Total loss-absorbing capacity to risk-weighted assets	**28.8 %**	28.8 %	29.0 %	28.9 %	27.8 %		
Total loss-absorbing capacity to supplementary leverage exposure	**13.0**	13.1	13.2	13.0	12.6		
Eligible long-term debt to risk-weighted assets	**14.6**	14.8	15.2	15.2	14.7		
Eligible long-term debt to supplementary leverage exposure	**6.6**	6.7	6.9	6.8	6.6		

(1) For definitions, see Key Metrics on page 105.
(2) Calculated as total net income for four consecutive quarters divided by annualized average assets for four consecutive quarters.
(3) Tangible equity ratios and tangible book value per share of common stock are non-GAAP financial measures. For more information on these ratios and corresponding reconciliations to GAAP financial measures, see Supplemental Financial Data on page 7 and Non-GAAP Reconciliations on page 48.
(4) Includes the allowance for loan and lease losses and the reserve for unfunded lending commitments.
(5) Balances and ratios do not include loans accounted for under the fair value option. For additional exclusions from nonperforming loans, leases and foreclosed properties, see Consumer Portfolio Credit Risk Management – Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity on page 34 and corresponding Table 25 and Commercial Portfolio Credit Risk Management – Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity on page 38 and corresponding Table 31.
(6) For more information, including which approach is used to assess capital adequacy, see Capital Management on page 22.
n/a = not applicable

Table 6 **Quarterly Average Balances and Interest Rates - FTE Basis**

(Dollars in millions)	Average Balance	Interest Income/ Expense [1]	Yield/ Rate	Average Balance	Interest Income/ Expense [1]	Yield/ Rate
	Second Quarter 2023			Second Quarter 2022		
Earning assets						
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	**$ 359,042**	**$ 4,303**	**4.81 %**	$ 178,313	$ 282	0.63 %
Time deposits placed and other short-term investments	**11,271**	**129**	**4.56**	7,658	12	0.62
Federal funds sold and securities borrowed or purchased under agreements to resell	**294,535**	**4,955**	**6.75**	304,684	396	0.52
Trading account assets	**187,420**	**2,091**	**4.47**	147,442	1,241	3.37
Debt securities	**771,355**	**4,717**	**2.44**	945,927	4,067	1.72
Loans and leases [2]						
Residential mortgage	**228,758**	**1,704**	**2.98**	228,529	1,571	2.75
Home equity	**25,957**	**353**	**5.45**	27,415	235	3.44
Credit card	**94,431**	**2,505**	**10.64**	81,024	1,954	9.68
Direct/Indirect and other consumer	**104,915**	**1,274**	**4.87**	108,639	696	2.57
Total consumer	**454,061**	**5,836**	**5.15**	445,607	4,456	4.01
U.S. commercial	**379,027**	**4,786**	**5.06**	363,978	2,525	2.78
Non-U.S. commercial	**125,827**	**1,949**	**6.21**	128,237	696	2.18
Commercial real estate [3]	**74,065**	**1,303**	**7.06**	63,072	476	3.02
Commercial lease financing	**13,628**	**149**	**4.38**	13,992	104	2.95
Total commercial	**592,547**	**8,187**	**5.54**	569,279	3,801	2.68
Total loans and leases	**1,046,608**	**14,023**	**5.37**	1,014,886	8,257	3.26
Other earning assets	**102,712**	**2,271**	**8.88**	108,180	823	3.06
Total earning assets	**2,772,943**	**32,489**	**4.70**	2,707,090	15,078	2.23
Cash and due from banks	**26,098**			29,025		
Other assets, less allowance for loan and lease losses	**376,317**			421,740		
Total assets	**$ 3,175,358**			$ 3,157,855		
Interest-bearing liabilities						
U.S. interest-bearing deposits						
Demand and money market deposits	**$ 951,403**	**$ 3,565**	**1.50 %**	$ 985,983	$ 189	0.08 %
Time and savings deposits	**230,008**	**1,452**	**2.53**	156,824	42	0.11
Total U.S. interest-bearing deposits	**1,181,411**	**5,017**	**1.70**	1,142,807	231	0.08
Non-U.S. interest-bearing deposits	**96,802**	**768**	**3.18**	79,471	89	0.45
Total interest-bearing deposits	**1,278,213**	**5,785**	**1.82**	1,222,278	320	0.11
Federal funds purchased and securities loaned or sold under agreements to repurchase	**322,728**	**5,807**	**7.22**	214,777	454	0.85
Short-term borrowings and other interest-bearing liabilities	**163,739**	**2,548**	**6.24**	134,790	99	0.30
Trading account liabilities	**44,944**	**472**	**4.22**	54,005	370	2.74
Long-term debt	**248,480**	**3,584**	**5.78**	245,781	1,288	2.10
Total interest-bearing liabilities	**2,058,104**	**18,196**	**3.55**	1,871,631	2,531	0.54
Noninterest-bearing sources						
Noninterest-bearing deposits	**597,140**			789,801		
Other liabilities [4]	**237,689**			228,226		
Shareholders' equity	**282,425**			268,197		
Total liabilities and shareholders' equity	**$ 3,175,358**			$ 3,157,855		
Net interest spread			**1.15 %**			1.69 %
Impact of noninterest-bearing sources			**0.91**			0.17
Net interest income/yield on earning assets [5]		**$ 14,293**	**2.06 %**		$ 12,547	1.86 %

(1) Includes the impact of interest rate risk management contracts. For more information, see Interest Rate Risk Management for the Banking Book on page 45.
(2) Nonperforming loans are included in the respective average loan balances. Income on these nonperforming loans is generally recognized on a cost recovery basis.
(3) Includes U.S. commercial real estate loans of $68.0 billion and $58.9 billion, and non-U.S. commercial real estate loans of $6.0 billion and $4.1 billion for the second quarter of 2023 and 2022.
(4) Includes $39.9 billion and $29.7 billion of structured notes and liabilities for the second quarter of 2023 and 2022.
(5) Net interest income includes FTE adjustments of $135 million and $103 million for the second quarter of 2023 and 2022.

Table 7 **Year-to-Date Average Balances and Interest Rates - FTE Basis**

(Dollars in millions)	Average Balance 2023	Interest Income/ Expense [1] 2023	Yield/ Rate 2023	Average Balance 2022	Interest Income/ Expense [1] 2022	Yield/ Rate 2022
	Six Months Ended June 30					
Earning assets						
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	**$ 281,303**	**$ 6,302**	**4.52 %**	$ 211,458	$ 368	0.35 %
Time deposits placed and other short-term investments	**10,928**	**237**	**4.37**	8,451	24	0.57
Federal funds sold and securities borrowed or purchased under agreements to resell	**291,053**	**8,667**	**6.01**	302,059	389	0.26
Trading account assets	**185,549**	**4,131**	**4.49**	149,693	2,337	3.14
Debt securities	**811,046**	**10,202**	**2.51**	960,709	7,905	1.65
Loans and leases [2]						
Residential mortgage	**229,015**	**3,388**	**2.96**	226,267	3,096	2.74
Home equity	**26,234**	**670**	**5.15**	27,599	455	3.33
Credit card	**93,110**	**4,931**	**10.68**	79,724	3,894	9.85
Direct/Indirect and other consumer	**105,284**	**2,460**	**4.71**	106,645	1,275	2.41
Total consumer	**453,643**	**11,449**	**5.08**	440,235	8,720	3.98
U.S. commercial	**377,945**	**9,257**	**4.94**	355,293	4,652	2.64
Non-U.S. commercial	**126,412**	**3,727**	**5.95**	123,528	1,200	1.96
Commercial real estate [3]	**72,337**	**2,447**	**6.82**	63,069	863	2.76
Commercial lease financing	**13,657**	**296**	**4.35**	14,317	210	2.94
Total commercial	**590,351**	**15,727**	**5.37**	556,207	6,925	2.51
Total loans and leases	**1,043,994**	**27,176**	**5.24**	996,442	15,645	3.16
Other earning assets	**98,592**	**4,563**	**9.33**	114,454	1,410	2.48
Total earning assets	**2,722,465**	**61,278**	**4.53**	2,743,266	28,078	2.06
Cash and due from banks	**26,936**			28,556		
Other assets, less allowance for loan and lease losses	**386,478**			410,818		
Total assets	**$ 3,135,879**			$ 3,182,640		
Interest-bearing liabilities						
U.S. interest-bearing deposits						
Demand and money market deposits	**$ 963,178**	**$ 6,355**	**1.33 %**	$ 993,542	$ 269	0.05 %
Time and savings deposits	**213,587**	**2,371**	**2.24**	160,382	82	0.10
Total U.S. interest-bearing deposits	**1,176,765**	**8,726**	**1.50**	1,153,924	351	0.06
Non-U.S. interest-bearing deposits	**94,218**	**1,373**	**2.94**	80,669	133	0.33
Total interest-bearing deposits	**1,270,983**	**10,099**	**1.60**	1,234,593	484	0.08
Federal funds purchased and securities loaned or sold under agreements to repurchase	**289,556**	**9,358**	**6.52**	215,958	533	0.50
Short-term borrowings and other interest-bearing liabilities [4]	**160,331**	**5,177**	**6.51**	130,645	(92)	(0.14)
Trading account liabilities	**44,451**	**976**	**4.43**	59,094	734	2.50
Long-term debt	**246,630**	**6,793**	**5.53**	245,911	2,194	1.80
Total interest-bearing liabilities	**2,011,951**	**32,403**	**3.24**	1,886,201	3,853	0.41
Noninterest-bearing sources						
Noninterest-bearing deposits	**613,468**			794,259		
Other liabilities [5]	**230,607**			233,430		
Shareholders' equity	**279,853**			268,750		
Total liabilities and shareholders' equity	**$ 3,135,879**			$ 3,182,640		
Net interest spread			**1.29 %**			1.65 %
Impact of noninterest-bearing sources			**0.84**			0.12
Net interest income/yield on earning assets [6]		**$ 28,875**	**2.13 %**		$ 24,225	1.77 %

(1) Includes the impact of interest rate risk management contracts. For more information, see Interest Rate Risk Management for the Banking Book on page 45.
(2) Nonperforming loans are included in the respective average loan balances. Income on these nonperforming loans is generally recognized on a cost recovery basis.
(3) Includes U.S. commercial real estate loans of $66.8 billion and $58.7 billion and non-U.S. commercial real estate loans of $5.5 billion and $4.3 billion for the six months ended June 30, 2023 and 2022.
(4) For more information on negative interest, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.
(5) Includes $38.6 billion and $29.9 billion of structured notes and liabilities for the six months ended June 30, 2023 and 2022.
(6) Net interest income includes FTE adjustments of $269 million and $209 million for the six months ended June 30, 2023 and 2022.

Business Segment Operations

Segment Description and Basis of Presentation

We report our results of operations through four business segments: *Consumer Banking, GWIM, Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. We manage our segments and report their results on an FTE basis. For more information, see Business Segment Operations in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

We periodically review capital allocated to our businesses and allocate capital annually during the strategic and capital planning processes. We utilize a methodology that considers the effect of regulatory capital requirements in addition to internal risk-based capital models. The capital allocated to the business segments is referred to as allocated capital. Allocated equity in the reporting units is comprised of allocated capital plus capital for the portion of goodwill and intangibles specifically assigned to the reporting unit. For more information, including the definition of a reporting unit, see *Note 7 – Goodwill and Intangible Assets* to the Consolidated Financial Statements.

For more information on our presentation of financial information on an FTE basis, see Supplemental Financial Data on page 7, and for reconciliations to consolidated total revenue, net income and period-end total assets, see *Note 17 – Business Segment Information* to the Consolidated Financial Statements.

Key Performance Indicators

We present certain key financial and nonfinancial performance indicators that management uses when evaluating segment results. We believe they are useful to investors because they provide additional information about our segments' operational performance, customer trends and business growth.

Consumer Banking

	Deposits		Consumer Lending		Total Consumer Banking		
	Three Months Ended June 30						
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022	% Change
Net interest income	**$ 5,733**	$ 4,477	**$ 2,704**	$ 2,610	**$ 8,437**	$ 7,087	19 %
Noninterest income:							
Card income	**(10)**	(9)	**1,351**	1,329	**1,341**	1,320	2
Service charges	**524**	678	**1**	1	**525**	679	(23)
All other income	**177**	55	**44**	(5)	**221**	50	n/m
Total noninterest income	**691**	724	**1,396**	1,325	**2,087**	2,049	2
Total revenue, net of interest expense	**6,424**	5,201	**4,100**	3,935	**10,524**	9,136	15
Provision for credit losses	**103**	142	**1,164**	208	**1,267**	350	n/m
Noninterest expense	**3,428**	3,055	**2,025**	1,904	**5,453**	4,959	10
Income before income taxes	**2,893**	2,004	**911**	1,823	**3,804**	3,827	(1)
Income tax expense	**723**	491	**228**	447	**951**	938	1
Net income	**$ 2,170**	$ 1,513	**$ 683**	$ 1,376	**$ 2,853**	$ 2,889	(1)
Effective tax rate [1]					**25.0 %**	24.5 %	
Net interest yield	**2.29 %**	1.67 %	**3.58 %**	3.64 %	**3.24 %**	2.55 %	
Return on average allocated capital	**64**	47	**10**	20	**27**	29	
Efficiency ratio	**53.33**	58.74	**49.43**	48.38	**51.81**	54.28	

Balance Sheet

	Three Months Ended June 30						
Average	**2023**	2022	**2023**	2022	**2023**	2022	% Change
Total loans and leases	**$ 4,078**	$ 4,147	**$ 302,584**	$ 285,448	**$ 306,662**	$ 289,595	6 %
Total earning assets [2]	**1,002,528**	1,072,773	**302,944**	287,512	**1,045,743**	1,114,552	(6)
Total assets [2]	**1,035,969**	1,106,098	**309,228**	294,407	**1,085,469**	1,154,773	(6)
Total deposits	**1,001,307**	1,072,166	**5,030**	5,854	**1,006,337**	1,078,020	(7)
Allocated capital	**13,700**	13,000	**28,300**	27,000	**42,000**	40,000	5

(1) Estimated at the segment level only.
(2) In segments and businesses where the total of liabilities and equity exceeds assets, we allocate assets from *All Other* to match the segments' and businesses' liabilities and allocated shareholders' equity. As a result, total earning assets and total assets of the businesses may not equal total *Consumer Banking*.
n/m = not meaningful

(Dollars in millions)	Deposits 2023	Deposits 2022	Consumer Lending 2023	Consumer Lending 2022	Total Consumer Banking 2023	Total Consumer Banking 2022	% Change
	Six Months Ended June 30						
Net interest income	**$ 11,549**	$ 8,529	**$ 5,481**	$ 5,238	**$ 17,030**	$ 13,767	24 %
Noninterest income:							
Card income	**(20)**	(17)	**2,635**	2,522	**2,615**	2,505	4
Service charges	**1,122**	1,521	**2**	2	**1,124**	1,523	(26)
All other income	**374**	123	**87**	31	**461**	154	n/m
Total noninterest income	**1,476**	1,627	**2,724**	2,555	**4,200**	4,182	—
Total revenue, net of interest expense	**13,025**	10,156	**8,205**	7,793	**21,230**	17,949	18
Provision for credit losses	**286**	215	**2,070**	83	**2,356**	298	n/m
Noninterest expense	**6,843**	6,063	**4,083**	3,817	**10,926**	9,880	11
Income before income taxes	**5,896**	3,878	**2,052**	3,893	**7,948**	7,771	2
Income tax expense	**1,474**	950	**513**	954	**1,987**	1,904	4
Net income	**$ 4,422**	$ 2,928	**$ 1,539**	$ 2,939	**$ 5,961**	$ 5,867	2
Effective tax rate [1]					**25.0 %**	24.5 %	
Net interest yield	**2.30 %**	1.62 %	**3.67 %**	3.71 %	**3.25**	2.52	
Return on average allocated capital	**65**	45	**11**	22	**29**	30	
Efficiency ratio	**52.53**	59.70	**49.77**	48.97	**51.46**	55.04	

Balance Sheet

	Deposits		Consumer Lending		Total Consumer Banking		
	Six Months Ended June 30						
Average	**2023**	2022	**2023**	2022	**2023**	2022	% Change
Total loans and leases	**$ 4,099**	$ 4,180	**$ 301,126**	$ 282,666	**$ 305,225**	$ 286,846	6 %
Total earning assets [2]	**1,012,432**	1,061,693	**301,378**	284,400	**1,055,419**	1,103,707	(4)
Total assets [2]	**1,045,933**	1,095,281	**307,760**	291,052	**1,095,302**	1,143,947	(4)
Total deposits	**1,011,285**	1,061,267	**4,949**	5,853	**1,016,234**	1,067,120	(5)
Allocated capital	**13,700**	13,000	**28,300**	27,000	**42,000**	40,000	5

Period end	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	% Change
Total loans and leases	**$ 4,122**	$ 4,148	**$ 305,613**	$ 300,613	**$ 309,735**	$ 304,761	2 %
Total earning assets [2]	**999,281**	1,043,049	**306,121**	300,787	**1,043,228**	1,085,079	(4)
Total assets [2]	**1,034,405**	1,077,203	**312,281**	308,007	**1,084,512**	1,126,453	(4)
Total deposits	**999,262**	1,043,194	**5,220**	5,605	**1,004,482**	1,048,799	(4)

See page 11 for footnotes.

Consumer Banking, comprised of Deposits and Consumer Lending, offers a diversified range of credit, banking and investment products and services to consumers and small businesses. For more information about *Consumer Banking*, see Business Segment Operations in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Consumer Banking Results

Three-Month Comparison

Net income for *Consumer Banking* decreased $36 million to $2.9 billion due to an increase in provision for credit losses and higher noninterest expense, largely offset by higher revenue. Net interest income increased $1.4 billion to $8.4 billion primarily driven by higher interest rates and loan balances. Noninterest income increased $38 million to $2.1 billion, relatively unchanged from the same period a year ago.

The provision for credit losses increased $917 million to $1.3 billion primarily driven by credit card loan growth and asset quality in the current-year period, whereas the prior-year period benefitted from reduced COVID-19 pandemic uncertainties. Noninterest expense increased $494 million to $5.5 billion primarily driven by continued investments in employees and higher litigation expense, including consumer regulatory matters.

The return on average allocated capital was 27 percent, down from 29 percent, primarily due to an increase in allocated capital. For more information on capital allocated to the business segments, see Business Segment Operations on page 11.

Six-Month Comparison

Net income for *Consumer Banking* increased $94 million to $6.0 billion due to higher revenue, largely offset by an increase in provision for credit losses and higher noninterest expense. Net interest income increased $3.3 billion to $17.0 billion primarily due to the same factors as described in the three-month discussion. Noninterest income increased $18 million to $4.2 billion, relatively unchanged from the same period a year ago.

The provision for credit losses increased $2.1 billion to $2.4 billion primarily due to the same factors as described in the three-month discussion. Noninterest expense increased $1.0 billion to $10.9 billion primarily due to the same factors as described in the three-month discussion.

The return on average allocated capital was 29 percent, down from 30 percent, primarily due to the same factor as described in the three-month discussion.

Deposits

Three-Month Comparison

Net income for Deposits increased $657 million to $2.2 billion primarily due to higher revenue, partially offset by higher noninterest expense. Net interest income increased $1.3 billion to $5.7 billion primarily due to higher interest rates. Noninterest income decreased $33 million to $691 million primarily driven by the impact of non-sufficient funds and overdraft policy changes.

Noninterest expense increased $373 million to $3.4 billion primarily driven by continued investments in employees and higher litigation expense, including consumer regulatory matters.

Average deposits decreased $70.9 billion to $1.0 trillion primarily due to net outflows of $44.8 billion in money market savings and $29.7 billion in checking primarily due to higher interest rates and client activity.

Six-Month Comparison

Net income for Deposits increased $1.5 billion to $4.4 billion primarily due to higher revenue, partially offset by higher noninterest expense. Net interest income increased $3.0 billion to $11.5 billion primarily due to the same factor as described in the three-month discussion. Noninterest income decreased $151 million to $1.5 billion primarily due to the same factor as described in the three-month discussion.

Average deposits decreased $50.0 billion to $1.0 trillion primarily due to net outflows of $30.0 billion in money market savings and $20.7 billion in checking primarily driven by the same factors as described in the three-month discussion.

The table below provides key performance indicators for Deposits. Management uses these metrics, and we believe they are useful to investors because they provide additional information to evaluate our deposit profitability and digital/ mobile trends.

Key Statistics – Deposits

	Three Months Ended June 30		Six Months Ended June 30	
	2023	2022	**2023**	2022
Total deposit spreads (excludes noninterest costs) [1]	**2.67%**	1.70%	**2.60%**	1.68%
Period end				
Consumer investment assets (in millions) [2]			**$ 386,761**	$ 315,243
Active digital banking users (in thousands) [3]			**45,713**	42,690
Active mobile banking users (in thousands) [4]			**37,329**	34,167
Financial centers			**3,887**	3,984
ATMs			**15,335**	15,730

(1) Includes deposits held in Consumer Lending.
(2) Includes client brokerage assets, deposit sweep balances, Bank of America, N.A. brokered CDs and AUM in *Consumer Banking*.
(3) Represents mobile and/or online active users over the past 90 days.
(4) Represents mobile active users over the past 90 days.

Consumer investment assets increased $71.5 billion to $386.8 billion driven by client flows and market performance. Active mobile banking users increased approximately three million, reflecting continuing changes in our clients' banking preferences. We had a net decrease of 97 financial centers and 395 ATMs as we continue to optimize our consumer banking network.

Consumer Lending

Three-Month Comparison

Net income for Consumer Lending decreased $693 million to $683 million primarily due to an increase in provision for credit losses. Net interest income increased $94 million to $2.7 billion primarily due to higher loan balances. Noninterest income increased $71 million to $1.4 billion primarily driven by higher mortgage banking income and card income.

The provision for credit losses increased $956 million to $1.2 billion primarily driven by credit card loan growth and asset quality in the current-year period, whereas the prior-year period benefitted from reduced COVID-19 pandemic uncertainties. Noninterest expense increased $121 million to $2.0 billion largely driven by continued investments for business growth and client activity.

Average loans increased $17.1 billion to $302.6 billion primarily driven by an increase in credit card loans.

Six-Month Comparison

Net income for Consumer Lending decreased $1.4 billion to $1.5 billion primarily due to an increase in provision for credit losses. Net interest income increased $243 million to $5.5 billion primarily due to the same factor as described in the three-month discussion. Noninterest income increased $169 million to $2.7 billion primarily due to higher card income.

The provision for credit losses increased $2.0 billion to $2.1 billion primarily due to the same factors as described in the three-month discussion. Noninterest expense increased $266 million t o $4.1 billion primarily driven by the same factors as described in the three-month discussion.

Average loans increased $18.5 billion to $301.1 billion primarily driven by the same factor as described in the three-month discussion.

The table below provides key performance indicators for Consumer Lending. Management uses these metrics, and we believe they are useful to investors because they provide additional information about loan growth and profitability.

Key Statistics – Consumer Lending

(Dollars in millions)	Three Months Ended June 30 2023	2022	Six Months Ended June 30 2023	2022
Total credit card [1]				
Gross interest yield [2]	**11.66 %**	9.76 %	**11.75 %**	9.83 %
Risk-adjusted margin [3]	**7.83**	9.95	**8.25**	10.17
New accounts (in thousands)	**1,137**	1,068	**2,324**	2,045
Purchase volumes	**$ 93,103**	$ 91,810	**$ 178,647**	$ 172,724
Debit card purchase volumes	**$ 132,962**	$ 128,707	**$ 257,338**	$ 246,291

(1) Includes *GWIM's* credit card portfolio.
(2) Calculated as the effective annual percentage rate divided by average loans.
(3) Calculated as the difference between total revenue, net of interest expense, and net credit losses divided by average loans.

During the three and six months ended June 30, 2023, the total risk-adjusted margin decreased 212 bps and 192 bps primarily driven by higher net credit losses, lower net interest margin and lower fee income. During the three and six months ended June 30, 2023 total credit card purchase volumes increased $1.3 billion and $5.9 billion, and debit card purchase volumes increased $4.3 billion and $11.0 billion, reflecting higher levels of consumer spending.

Key Statistics – Loan Production [1]

(Dollars in millions)	Three Months Ended June 30 2023	2022	Six Months Ended June 30 2023	2022
Consumer Banking:				
First mortgage	**$ 2,889**	$ 6,551	**$ 4,845**	$ 14,667
Home equity	**2,171**	2,151	**4,354**	3,876
Total [2]:				
First mortgage	**$ 5,940**	$ 14,471	**$ 9,877**	$ 30,824
Home equity	**2,542**	2,535	**5,138**	4,575

(1) The loan production amounts represent the unpaid principal balance of loans and, in the case of home equity, the principal amount of the total line of credit.
(2) In addition to loan production in *Consumer Banking*, there is also first mortgage and home equity loan production in *GWIM*.

First mortgage loan originations for *Consumer Banking* and the total Corporation decreased $3.7 billion and $8.5 billion during the three months ended June 30, 2023 primarily driven by higher interest rates, resulting in lower customer demand. During the six months ended June 30, 2023, first mortgage loan originations for *Consumer Banking* and the total Corporation decreased $9.8 billion and $20.9 billion primarily driven by changes in demand.

Home equity production in *Consumer Banking* and the total Corporation remained relatively unchanged during the three months ended June 30, 2023 compared to the same period a year ago. During the six months ended June 30, 2023, home equity production in *Consumer Banking* and the total Corporation increased $478 million and $563 million primarily driven by higher demand.

Global Wealth & Investment Management

(Dollars in millions)	Three Months Ended June 30 2023	2022	% Change	Six Months Ended June 30 2023	2022	% Change
Net interest income	**$ 1,805**	$ 1,802	— %	**$ 3,681**	$ 3,470	6 %
Noninterest income:						
Investment and brokerage services	**3,251**	3,486	(7)	**6,489**	7,140	(9)
All other income	**186**	145	28	**387**	299	29
Total noninterest income	**3,437**	3,631	(5)	**6,876**	7,439	(8)
Total revenue, net of interest expense	**5,242**	5,433	(4)	**10,557**	10,909	(3)
Provision for credit losses	**13**	33	(61)	**38**	(8)	n/m
Noninterest expense	**3,925**	3,875	1	**7,992**	7,890	1
Income before income taxes	**1,304**	1,525	(14)	**2,527**	3,027	(17)
Income tax expense	**326**	374	(13)	**632**	742	(15)
Net income	**$ 978**	$ 1,151	(15)	**$ 1,895**	$ 2,285	(17)
Effective tax rate	**25.0 %**	24.5 %		**25.0 %**	24.5 %	
Net interest yield	**2.21**	1.82		**2.20**	1.72	
Return on average allocated capital	**21**	26		**21**	26	
Efficiency ratio	**74.86**	71.34		**75.70**	72.33	

Balance Sheet

Average	Three Months Ended June 30 2023	2022	% Change	Six Months Ended June 30 2023	2022	% Change
Total loans and leases	**$ 218,604**	$ 219,277	— %	**$ 220,018**	$ 215,130	2 %
Total earning assets	**327,066**	396,611	(18)	**336,671**	407,369	(17)
Total assets	**340,105**	409,472	(17)	**349,582**	420,196	(17)
Total deposits	**295,380**	363,943	(19)	**304,648**	374,365	(19)
Allocated capital	**18,500**	17,500	6	**18,500**	17,500	6

Period end	June 30 2023	December 31 2022	% Change
Total loans and leases	**$ 219,208**	$ 223,910	(2) %
Total earning assets	**324,820**	355,461	(9)
Total assets	**338,184**	368,893	(8)
Total deposits	**292,526**	323,899	(10)

n/m = not meaningful

GWIM consists of two primary businesses: Merrill Wealth Management and Bank of America Private Bank. For more information about *GWIM*, see Business Segment Operations in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Three-Month Comparison

Net income for *GWIM* decreased $173 million to $978 million primarily due to lower revenue and higher noninterest expense. The operating margin was 25 percent compared to 28 percent a year ago.

Net interest income was $1.8 billion, relatively unchanged from the same period a year ago.

Noninterest income, which primarily includes investment and brokerage services income, decreased $194 million to $3.4 billion. The decline was primarily driven by lower asset management fees and brokerage fees due to lower average equity and fixed income market levels and transactional volumes, partially offset by the impact of positive AUM flows.

Noninterest expense increased $50 million to $3.9 billion primarily due to continued investments in the business, including strategic hiring, largely offset by lower revenue-related incentives.

The return on average allocated capital was 21 percent, down from 26 percent, due to lower net income and, to a lesser extent, a small increase in allocated capital.

Average loans decreased $673 million to $218.6 billion primarily driven by securities based lending, partially offset by residential mortgage and custom lending. Average deposits decreased $68.6 billion to $295.4 billion primarily driven by clients moving deposits to higher yielding investment alternatives, including offerings on our investment and brokerage platforms.

Merrill Wealth Management revenue of $4.3 billion decreased four percent primarily driven by lower average equity and fixed income market levels and transactional volumes, partially offset by the impact of positive AUM flows.

Bank of America Private Bank revenue of $902 million increased one percent primarily driven by the benefits of higher interest rates and the impact of positive AUM flows, partially offset by the impact of lower average market valuations.

Six-Month Comparison

Net income for *GWIM* decreased $390 million to $1.9 billion primarily due to lower revenue and higher noninterest expense. The operating margin was 24 percent compared to 28 percent a year ago.

Net interest income increased $211 million to $3.7 billion primarily due to the impact of higher interest rates, partially offset by the impact of lower deposit balances.

Noninterest income, which primarily includes investment and brokerage services income, decreased $563 million to $6.9 billion due to the same factors as described in the three-month discussion.

Noninterest expense increased $102 million to $8.0 billion due to the same factors as described in the three-month discussion.

The return on average allocated capital was 21 percent, down from 26 percent, due to lower net income and, to a lesser extent, a small increase in allocated capital.

Average loans increased $4.9 billion to $220.0 billion primarily driven by residential mortgage and custom lending, partially offset by securities based lending. Average deposits decreased $69.7 billion to $304.6 billion due to the same factors as described in the three-month discussion.

Merrill Wealth Management revenue of $8.7 billion decreased four percent primarily driven by the same factors as described in the three-month discussion, partially offset by the impact of higher interest rates.

Bank of America Private Bank revenue of $1.8 billion increased two percent primarily driven by the same factors as described in the three-month discussion.

Key Indicators and Metrics

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2023**	2022	**2023**	2022
Revenue by Business				
Merrill Wealth Management	**$ 4,340**	$ 4,536	**$ 8,737**	$ 9,125
Bank of America Private Bank	**902**	897	**1,820**	1,784
Total revenue, net of interest expense	**$ 5,242**	$ 5,433	**$ 10,557**	$ 10,909
Client Balances by Business, at period end				
Merrill Wealth Management			**$ 3,057,680**	$ 2,819,998
Bank of America Private Bank			**577,514**	547,116
Total client balances			**$ 3,635,194**	$ 3,367,114
Client Balances by Type, at period end				
Assets under management			**$ 1,531,042**	$ 1,411,344
Brokerage and other assets			**1,628,294**	1,437,562
Deposits			**292,526**	347,991
Loans and leases [1]			**222,280**	224,847
Less: Managed deposits in assets under management			**(38,948)**	(54,630)
Total client balances			**$ 3,635,194**	$ 3,367,114
Assets Under Management Rollforward				
Assets under management, beginning of period	**$ 1,467,242**	$ 1,571,605	**$ 1,401,474**	$ 1,638,782
Net client flows	**14,296**	1,033	**29,558**	16,570
Market valuation/other	**49,504**	(161,294)	**100,010**	(244,008)
Total assets under management, end of period	**$ 1,531,042**	$ 1,411,344	**$ 1,531,042**	$ 1,411,344
Total wealth advisors, at period end [2]			**19,099**	18,449

(1) Includes margin receivables which are classified in customer and other receivables on the Consolidated Balance Sheet.
(2) Includes advisors across all wealth management businesses in *GWIM* and *Consumer Banking*.

Client Balances

Client balances increased $268.1 billion, or eight percent, to $3.6 trillion at June 30, 2023 compared to June 30, 2022. The increase in client balances was primarily due to the impact of higher end-of-period market valuations and positive client flows.

Global Banking

(Dollars in millions)	Three Months Ended June 30 2023	2022	% Change	Six Months Ended June 30 2023	2022	% Change
Net interest income	**$ 3,690**	$ 2,634	40 %	**$ 7,597**	$ 4,978	53 %
Noninterest income:						
Service charges	**735**	933	(21)	**1,449**	1,819	(20)
Investment banking fees	**718**	692	4	**1,386**	1,572	(12)
All other income	**1,319**	747	77	**2,233**	1,831	22
Total noninterest income	**2,772**	2,372	17	**5,068**	5,222	(3)
Total revenue, net of interest expense	**6,462**	5,006	29	**12,665**	10,200	24
Provision for credit losses	**9**	157	(94) %	**(228)**	322	n/m
Noninterest expense	**2,819**	2,799	1	**5,759**	5,482	5
Income before income taxes	**3,634**	2,050	77	**7,134**	4,396	62
Income tax expense	**981**	543	81	**1,926**	1,165	65
Net income	**$ 2,653**	$ 1,507	76	**$ 5,208**	$ 3,231	61
Effective tax rate	**27.0 %**	26.5 %		**27.0 %**	26.5 %	
Net interest yield	**2.80**	1.97		**2.92**	1.82	
Return on average allocated capital	**22**	14		**21**	15	
Efficiency ratio	**43.59**	55.90		**45.46**	53.74	

Balance Sheet

Average	Three Months Ended June 30 2023	2022	% Change	Six Months Ended June 30 2023	2022	% Change
Total loans and leases	**$ 383,058**	$ 377,248	2 %	**$ 382,039**	$ 368,078	4 %
Total earning assets	**527,959**	537,660	(2)	**525,181**	551,894	(5)
Total assets	**595,585**	601,945	(1)	**592,254**	616,156	(4)
Total deposits	**497,533**	509,261	(2)	**495,069**	524,502	(6)
Allocated capital	**49,250**	44,500	11	**49,250**	44,500	11

Period end	**June 30 2023**	December 31 2022	% Change
Total loans and leases	**$ 381,609**	$ 379,107	1 %
Total earning assets	**518,547**	522,539	(1)
Total assets	**586,397**	588,466	—
Total deposits	**492,734**	498,661	(1)

n/m = not meaningful

Global Banking, which includes Global Corporate Banking, Global Commercial Banking, Business Banking and Global Investment Banking, provides a wide range of lending-related products and services, integrated working capital management and treasury solutions, and underwriting and advisory services through our network of offices and client relationship teams. For more information about *Global Banking*, see Business Segment Operations in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Three-Month Comparison

Net income for *Global Banking* increased $1.1 billion to $2.7 billion primarily driven by higher revenue and lower provision for credit losses.

Net interest income increased $1.1 billion to $3.7 billion predominantly due to the benefit of higher interest rates.

Noninterest income increased $400 million to $2.8 billion driven by higher revenue from ESG investment activities and negative valuation adjustments on leveraged loans in the prior-year period, partially offset by lower treasury service charges due to higher earnings credit rates.

The provision for credit losses decreased $148 million to $9 million as the prior-year period was impacted by reserve builds for a dampened macroeconomic outlook and loan growth.

Noninterest expense increased $20 million to $2.8 billion, primarily due to continued investments in the business, including technology and strategic hiring in the prior year, largely offset by expenses recognized for certain regulatory matters in the prior-year period.

The return on average allocated capital was 22 percent, up from 14 percent, due to higher net income, partially offset by higher allocated capital. For more information on capital allocated to the business segments, see Business Segment Operations on page 11.

Six-Month Comparison

Net income for *Global Banking* increased $2.0 billion to $5.2 billion driven by higher revenue and lower provision for credit losses, partially offset by higher noninterest expense.

Net interest income increased $2.6 billion to $7.6 billion due to the same factor as described in the three-month discussion.

Noninterest income decreased $154 million to $5.1 billion driven by lower treasury service charges and lower investment banking fees, partially offset by negative valuation adjustments on leveraged loans in the prior-year period and higher revenue from ESG investment activities.

The provision for credit losses improved $550 million to a benefit of $228 million primarily due to the same factors as described in the three-month discussion and certain improved macroeconomic conditions in the current-year period compared to a reserve build related to Russian exposure in the prior-year period.

Noninterest expense increased $277 million to $5.8 billion, primarily due to the same factors as described in the three-month discussion.

The return on average allocated capital was 21 percent, up from 15 percent, due to higher net income, partially offset by higher allocated capital.

Global Corporate, Global Commercial and Business Banking

The following table and discussion present a summary of the results, which exclude certain investment banking and Paycheck Protection Program (PPP) activities in *Global Banking*.

Global Corporate, Global Commercial and Business Banking

	Global Corporate Banking		Global Commercial Banking		Business Banking		Total	
	Three Months Ended June 30							
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Revenue								
Business Lending	**$ 1,359**	$ 946	**$ 1,270**	$ 1,024	**$ 63**	$ 62	**$ 2,692**	$ 2,032
Global Transaction Services	**1,483**	1,138	**1,045**	973	**395**	270	**2,923**	2,381
Total revenue, net of interest expense	**$ 2,842**	$ 2,084	**$ 2,315**	$ 1,997	**$ 458**	$ 332	**$ 5,615**	$ 4,413
Balance Sheet								
Average								
Total loans and leases	**$ 174,280**	$ 176,949	**$ 196,069**	$ 186,452	**$ 12,508**	$ 12,865	**$ 382,857**	$ 376,266
Total deposits	**267,949**	244,763	**177,901**	206,805	**51,682**	57,697	**497,532**	509,265

	Global Corporate Banking		Global Commercial Banking		Business Banking		Total	
	Six Months Ended June 30							
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Revenue								
Business Lending	**$ 2,393**	$ 2,006	**$ 2,503**	$ 2,017	**$ 130**	$ 120	**$ 5,026**	$ 4,143
Global Transaction Services	**3,032**	2,087	**2,174**	1,869	**782**	513	**5,988**	4,469
Total revenue, net of interest expense	**$ 5,425**	$ 4,093	**$ 4,677**	$ 3,886	**$ 912**	$ 633	**$ 11,014**	$ 8,612
Balance Sheet								
Average								
Total loans and leases	**$ 174,783**	$ 171,999	**$ 194,442**	$ 181,992	**$ 12,563**	$ 12,851	**$ 381,788**	$ 366,842
Total deposits	**263,587**	251,297	**180,245**	215,226	**51,241**	57,980	**495,073**	524,503
Period end								
Total loans and leases	**$ 173,248**	$ 179,638	**$ 195,899**	$ 191,983	**$ 12,324**	$ 12,996	**$ 381,471**	$ 384,617
Total deposits	**265,104**	239,113	**177,235**	203,934	**50,391**	56,666	**492,730**	499,713

Business Lending revenue increased $660 million for the three months ended June 30, 2023 compared to the same period in 2022 primarily due to the benefit of higher interest rates and higher ESG investment activities. Business Lending revenue increased $883 million for the six months ended June 30, 2023 compared to the same period in 2022 primarily due to the benefits of higher interest rates, loan balances and higher ESG investment activities.

Global Transaction Services revenue increased $542 million for the three months ended June 30, 2023 driven by the benefit of higher interest rates, partially offset by lower treasury service charges. Global Transaction Services revenue increased $1.5 billion for the six months ended June 30, 2023 driven by the benefit of higher interest rates, partially offset by lower treasury service charges and the impact of lower deposit balances.

Average loans and leases increased two percent and four percent for the three and six months ended June 30, 2023 due to client demand. Average deposits decreased two percent and six percent for the three and six months ended June 30, 2023 due to declines in domestic balances.

Global Investment Banking

Client teams and product specialists underwrite and distribute debt, equity and loan products, and provide advisory services and tailored risk management solutions. The economics of certain investment banking and underwriting activities are shared primarily between *Global Banking* and *Global Markets* under an internal revenue-sharing arrangement. *Global Banking* originates certain deal-related transactions with our corporate and commercial clients that are executed and distributed by *Global Markets*. To provide a complete discussion of our consolidated investment banking fees, the following table presents total Corporation investment banking fees and the portion attributable to *Global Banking*.

Investment Banking Fees

(Dollars in millions)	Global Banking		Total Corporation		Global Banking		Total Corporation	
	Three Months Ended June 30				Six Months Ended June 30			
	2023	2022	**2023**	2022	**2023**	2022	**2023**	2022
Products								
Advisory	**$ 333**	$ 361	**$ 375**	$ 392	**$ 646**	$ 800	**$ 738**	$ 865
Debt issuance	**263**	283	**600**	662	**553**	642	**1,244**	1,493
Equity issuance	**122**	48	**287**	139	**187**	130	**455**	364
Gross investment banking fees	**718**	692	**1,262**	1,193	**1,386**	1,572	**2,437**	2,722
Self-led deals	**(16)**	(28)	**(50)**	(65)	**(20)**	(58)	**(62)**	(137)
Total investment banking fees	**$ 702**	$ 664	**$ 1,212**	$ 1,128	**$ 1,366**	$ 1,514	**$ 2,375**	$ 2,585

Total Corporation investment banking fees, which exclude self-led deals and are primarily included within *Global Banking* and *Global Markets*, were $1.2 billion and $2.4 billion for the three and six months ended June 30, 2023. The three-month period increased seven percent compared to the same period in 2022 primarily due to higher equity issuance fees, partially offset by lower debt issuance and advisory fees. The six-month period decreased eight percent compared to the same period in 2022 primarily due to lower debt issuance and advisory fees, partially offset by higher equity issuance fees.

Global Markets

(Dollars in millions)	Three Months Ended June 30			Six Months Ended June 30		
	2023	2022	% Change	**2023**	2022	% Change
Net interest income	**$ 297**	$ 981	(70)%	**$ 406**	$ 1,974	(79)%
Noninterest income:						
Investment and brokerage services	**499**	518	(4)	**1,032**	1,063	(3)
Investment banking fees	**503**	461	9	**972**	1,043	(7)
Market making and similar activities	**3,409**	2,657	28	**7,807**	5,847	34
All other income	**163**	(115)	n/m	**280**	(133)	n/m
Total noninterest income	**4,574**	3,521	30	**10,091**	7,820	29
Total revenue, net of interest expense	**4,871**	4,502	8	**10,497**	9,794	7
Provision for credit losses	**(4)**	8	(150)	**(57)**	13	n/m
Noninterest expense	**3,349**	3,109	8	**6,700**	6,226	8
Income before income taxes	**1,526**	1,385	10	**3,854**	3,555	8
Income tax expense	**420**	367	14	**1,060**	942	13
Net income	**$ 1,106**	$ 1,018	9	**$ 2,794**	$ 2,613	7
Effective tax rate	**27.5 %**	26.5 %		**27.5 %**	26.5 %	
Return on average allocated capital	**10**	10		**12**	12	
Efficiency ratio	**68.74**	69.07		**63.82**	63.57	

Balance Sheet	Three Months Ended June 30			Six Months Ended June 30		
	2023	2022	% Change	**2023**	2022	% Change
Average						
Trading-related assets:						
Trading account securities	**$ 317,928**	$ 295,190	8 %	**$ 328,529**	$ 298,220	10 %
Reverse repurchases	**139,480**	131,456	6	**133,155**	134,999	(1)
Securities borrowed	**120,481**	119,200	1	**118,392**	116,847	1
Derivative assets	**43,236**	60,289	(28)	**43,490**	51,106	(15)
Total trading-related assets	**621,125**	606,135	2	**623,566**	601,172	4
Total loans and leases	**128,539**	114,375	12	**126,802**	111,492	14
Total earning assets	**657,947**	598,832	10	**643,024**	604,846	6
Total assets	**877,471**	866,742	1	**873,727**	862,753	1
Total deposits	**33,222**	41,192	(19)	**34,658**	42,784	(19)
Allocated capital	**45,500**	42,500	7	**45,500**	42,500	7

Period end	**June 30 2023**	December 31 2022	% Change
Total trading-related assets	**$ 599,787**	$ 564,769	6 %
Total loans and leases	**131,128**	127,735	3
Total earning assets	**640,712**	587,772	9
Total assets	**851,771**	812,489	5
Total deposits	**33,049**	39,077	(15)

n/m = not meaningful

Global Markets offers sales and trading services and research services to institutional clients across fixed-income, credit, currency, commodity and equity businesses. *Global Markets* product coverage includes securities and derivative products in both the primary and secondary markets. For more information about *Global Markets*, see Business Segment Operations in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

The following explanations for current period-over-period changes for *Global Markets*, including those disclosed under Sales and Trading Revenue, are the same for amounts including and excluding net DVA. Amounts excluding net DVA are a non-GAAP financial measure. For more information on net DVA, see Supplemental Financial Data on page 7.

Three-Month Comparison

Net income for *Global Markets* increased $88 million to $1.1 billion. Net DVA losses were $102 million in the current-year period compared to gains of $158 million in the prior-year period. Excluding net DVA, net income increased $286 million to $1.2 billion. These increases were primarily driven by higher revenue, partially offset by higher noninterest expense.

Revenue increased $369 million to $4.9 billion primarily due to higher sales and trading revenue and negative valuation adjustments on leveraged loans in the prior-year period. Sales and trading revenue increased $132 million, and excluding net DVA, sales and trading revenue increased $392 million. These increases were driven by a strong performance in FICC.

Noninterest expense increased $240 million to $3.3 billion primarily driven by continued investments in the business, including people and technology, and activity-related expenses, partially offset by expenses recognized for certain regulatory matters in the prior-year period.

Average total assets increased $10.7 billion to $877.5 billion driven by higher levels of inventory and loan growth in FICC, partially offset by lower levels of inventory in Equities.

The return on average allocated capital was 10 percent, unchanged from the same period a year ago. For more information on capital allocated to the business segments, see Business Segment Operations on page 11.

Six-Month Comparison

Net income for *Global Markets* increased $181 million to $2.8 billion. Net DVA losses were $88 million compared to gains of $227 million in the prior-year period. Excluding net DVA, net income increased $421 million to $2.9 billion. These increases were primarily driven by higher revenue, partially offset by higher noninterest expense.

Revenue increased $703 million to $10.5 billion primarily due to the same factors as described in the three-month discussion. Sales and trading revenue increased $480 million, and excluding net DVA, sales and trading revenue increased $795 million. These increases were driven by higher revenue in FICC, partially offset by lower revenue in Equities.

Noninterest expense increased $474 million to $6.7 billion primarily driven by the same factors as described in the three-month discussion.

Average total assets increased $11.0 billion to $873.7 billion driven by higher levels of inventory and loan growth in FICC, partially offset by lower levels of inventory in Equities. Period-end total assets increased $39.3 billion from December 31, 2022 to $851.8 billion driven by increased securities financing activity and higher levels of inventory in FICC.

The return on average allocated capital was 12 percent, unchanged from the same period a year ago.

Sales and Trading Revenue

For a description of sales and trading revenue, see Business Segment Operations in the MD&A of the Corporation's 2022 Annual Report on Form 10-K. The following table and related discussion present sales and trading revenue, substantially all of which is in *Global Markets*, with the remainder in *Global Banking*. In addition, the following table and related discussion also present sales and trading revenue, excluding net DVA, which is a non-GAAP financial measure. For more information on net DVA, see Supplemental Financial Data on page 7.

Sales and Trading Revenue [1, 2, 3]

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Sales and trading revenue				
Fixed income, currencies and commodities	**$ 2,667**	$ 2,500	**$ 6,107**	$ 5,208
Equities	**1,618**	1,653	**3,245**	3,664
Total sales and trading revenue	**$ 4,285**	$ 4,153	**$ 9,352**	$ 8,872
Sales and trading revenue, excluding net DVA [4]				
Fixed income, currencies and commodities	**$ 2,764**	$ 2,340	**$ 6,193**	$ 4,988
Equities	**1,623**	1,655	**3,247**	3,657
Total sales and trading revenue, excluding net DVA	**$ 4,387**	$ 3,995	**$ 9,440**	$ 8,645

(1) For more information on sales and trading revenue, see *Note 3 – Derivatives* to the Consolidated Financial Statements.
(2) Includes FTE adjustments of $85 million and $175 million for the three and six months ended June 30, 2023 compared to $102 million and $195 million for the same periods in 2022.
(3) Includes *Global Banking* sales and trading revenue of $154 million and $331 million for the three and six months ended June 30, 2023 compared to $319 million and $498 million for the same periods in 2022.
(4) FICC and Equities sales and trading revenue, excluding net DVA, is a non-GAAP financial measure. FICC net DVA gains (losses) were $(97) million and $(86) million for the three and six months ended June 30, 2023 compared to $160 million and $220 million for the same periods in 2022. Equities net DVA gains (losses) were $(5) million and $(2) million for the three and six months ended June 30, 2023 compared to $(2) million and $7 million for the same periods in 2022.

Three-Month Comparison

Including and excluding net DVA, FICC revenue increased $167 million and $424 million primarily driven by strong trading performance in currencies, emerging markets interest rates, and secured financing, as well as improved trading in credit and mortgage products, partially offset by weaker performance in commodities. Including and excluding net DVA, Equities revenue decreased $35 million and $32 million driven by weaker trading performance in derivatives, partially offset by an increase in client financing activities.

Six-Month Comparison

Including and excluding net DVA, FICC revenue increased $899 million and $1.2 billion primarily due to the same factors as described in the three-month discussion. Including and excluding net DVA, Equities revenue decreased $419 million and $410 million driven by weaker trading performance in derivatives.

All Other

(Dollars in millions)	Three Months Ended June 30 2023	2022	% Change	Six Months Ended June 30 2023	2022	% Change
Net interest income	**$ 64**	$ 43	49 %	**$ 161**	$ 36	n/m
Noninterest income (loss)	**(1,831)**	(1,329)	38	**(3,386)**	(2,763)	23 %
Total revenue, net of interest expense	**(1,767)**	(1,286)	37	**(3,225)**	(2,727)	18
Provision for credit losses	**(160)**	(25)	n/m	**(53)**	(72)	(26)
Noninterest expense	**492**	531	(7)	**899**	1,114	(19)
Loss before income taxes	**(2,099)**	(1,792)	17	**(4,071)**	(3,769)	8
Income tax benefit	**(1,917)**	(1,474)	30	**(3,782)**	(3,087)	23
Net loss	**$ (182)**	$ (318)	(43)	**$ (289)**	$ (682)	(58)

Balance Sheet

Average	Three Months Ended June 30 2023	2022	% Change	Six Months Ended June 30 2023	2022	% Change
Total loans and leases	**$ 9,745**	$ 14,391	(32) %	**$ 9,910**	$ 14,896	(33) %
Total assets [1]	**276,728**	124,923	122	**225,014**	139,588	61
Total deposits	**42,881**	19,663	118	**33,842**	20,081	69

Period end	June 30 2023	December 31 2022	% Change
Total loans and leases	**$ 9,544**	$ 10,234	(7) %
Total assets [1]	**262,334**	155,074	69
Total deposits	**54,418**	19,905	n/m

[1] In segments where the total of liabilities and equity exceeds assets, which are generally deposit-taking segments, we allocate assets from *All Other* to those segments to match liabilities (i.e., deposits) and allocated shareholders' equity. Average allocated assets were $977.8 billion and $995.1 billion for the three and six months ended June 30, 2023 compared to $1.1 trillion and $1.2 trillion for the same periods in 2022, and period-end allocated assets were $963.6 billion and $1.0 trillion at June 30, 2023 and December 31 2022.

n/m = not meaningful

All Other primarily consists of asset and liability management (ALM) activities, liquidating businesses and certain expenses not otherwise allocated to a business segment. ALM activities encompass interest rate and foreign currency risk management activities for which substantially all of the results are allocated to our business segments. For more information on our ALM activities, see *Note 17 – Business Segment Information* to the Consolidated Financial Statements.

Three-Month Comparison

The net loss in *All Other* decreased $136 million to $182 million primarily due to a higher income tax benefit, mostly offset by lower noninterest income.

Noninterest income decreased $502 million primarily due to higher partnership losses for ESG investments and $197 million of losses on sales of AFS debt securities.

The income tax benefit increased $443 million reflecting an increase in tax preference benefits primarily driven from income tax credits related to ESG investment activity. Both periods included income tax benefit adjustments to eliminate the FTE treatment of certain tax credits recorded in *Global Banking* and *Global Markets*.

Six-Month Comparison

The net loss in *All Other* decreased $393 million to $289 million primarily due to a higher income tax benefit and lower noninterest expense, mostly offset by lower noninterest income.

Noninterest income decreased $623 million primarily due to losses on sales of AFS debt securities and higher partnership losses for ESG investments, partially offset by derivative gains related to risk management activities.

Noninterest expense decreased $215 million primarily due to expenses recognized for certain regulatory matters in the prior-year period.

The income tax benefit increased $695 million reflecting the impact described in the three-month discussion. Both periods included income tax benefit adjustments to eliminate the FTE treatment of certain tax credits recorded in *Global Banking* and *Global Markets*.

Managing Risk

Risk is inherent in all our business activities. The seven key types of risk faced by the Corporation are strategic, credit, market, liquidity, compliance, operational and reputational. Sound risk management enables us to serve our customers and deliver for our shareholders. If not managed well, risk can result in financial loss, regulatory sanctions and penalties, and damage to our reputation, each of which may adversely impact our ability to execute our business strategies. We take a comprehensive approach to risk management with a defined Risk Framework and an articulated Risk Appetite Statement, which are approved annually by the Enterprise Risk Committee and the Board.

Our Risk Framework serves as the foundation for the consistent and effective management of risks facing the Corporation. The Risk Framework sets forth roles and responsibilities for the management of risk and provides a blueprint for how the Board, through delegation of authority to committees and executive officers, establishes risk appetite and associated limits for our activities.

Our risk appetite provides a common framework that includes a set of measures to assist senior management and the Board in assessing the Corporation's risk profile against our risk appetite and risk capacity. Our risk appetite is formally articulated in the Risk Appetite Statement, which includes both qualitative statements and quantitative limits.

For more information on the Corporation's risks, see Item 1A. Risk Factors of the Corporation's 2022 Annual Report on Form 10-K. These risks are being managed within our Risk

Framework and supporting risk management programs. For more information on our Risk Framework, risk management activities and the key types of risk faced by the Corporation, see the Managing Risk section in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Capital Management

The Corporation manages its capital position so that its capital is more than adequate to support its business activities and aligns with risk, risk appetite and strategic planning. For more information, including related regulatory requirements, see Capital Management in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

CCAR and Capital Planning

The Federal Reserve requires BHCs to submit a capital plan and planned capital actions on an annual basis, consistent with the rules governing the CCAR capital plan. We submitted our 2023 CCAR capital plan and related supervisory stress tests in April 2023. On July 27, 2023, the Federal Reserve released final 2023 CCAR supervisory stress test results for Bank of America. Based on the results, our SCB will be 2.5 percent. For more information, see Executive Summary – Recent Developments – Capital Management on page 3.

In October 2021, the Board authorized the Corporation's $25 billion common stock repurchase program. Additionally, the Board authorized common stock repurchases to offset shares awarded under the Corporation's equity-based compensation plans. Pursuant to the Board's authorizations, during the second quarter of 2023, we repurchased $550 million of common stock, predominantly offsetting shares awarded under equity-based compensation plans.

The timing and amount of common stock repurchases are subject to various factors, including the Corporation's capital position, liquidity, financial performance and alternative uses of capital, stock trading price, regulatory requirements and general market conditions, and may be suspended at any time. Such repurchases may be effected through open market purchases or privately negotiated transactions, including repurchase plans that satisfy the conditions of Rule 10b5-1 of the Securities Exchange Act of 1934, as amended (Exchange Act).

Regulatory Capital

As a bank holding company, we are subject to regulatory capital rules, including Basel 3, issued by U.S. banking regulators. The Corporation's depository institution subsidiaries are also subject to the Prompt Corrective Action (PCA) framework. The Corporation and its primary affiliated banking entity, BANA, are Advanced approaches institutions under Basel 3 and are required to report regulatory risk-based capital ratios and risk-weighted assets (RWA) under both the Standardized and Advanced approaches. The lower of the capital ratios under Standardized or Advanced approaches compared to their respective regulatory capital ratio requirements is used to assess capital adequacy, including under the PCA framework. As of June 30, 2023, the CET1 capital, Tier 1 capital and Total capital ratios under the Standardized approach were the binding ratios.

Minimum Capital Requirements

In order to avoid restrictions on capital distributions and discretionary bonus payments, the Corporation must meet risk-based capital ratio requirements that include a capital conservation buffer of 2.5 percent (under the Advanced approaches only), an SCB (under the Standardized approach only), plus any applicable countercyclical capital buffer and a G-SIB surcharge. The buffers and surcharge must be comprised solely of CET1 capital. For the period from October 1, 2022 through September 30, 2023, the Corporation's minimum CET1 capital ratio requirements are 10.4 percent under the Standardized approach and 9.5 percent under the Advanced approaches.

The Corporation is required to calculate its G-SIB surcharge on an annual basis under two methods and is subject to the higher of the resulting two surcharges. Method 1 is consistent with the approach prescribed by the Basel Committee's assessment methodology and is calculated using specified indicators of systemic importance. Method 2 modifies the Method 1 approach by, among other factors, including a measure of the Corporation's reliance on short-term wholesale funding. The Corporation's G-SIB surcharge, which is higher under Method 2, is expected to increase 50 bps on January 1, 2024, which would increase our minimum CET1 capital ratio requirement. At June 30, 2023, the Corporation's CET1 capital ratio of 11.6 percent under the Standardized approach exceeded its current CET1 capital ratio requirement as well as the minimum requirement expected to be in place as of January 1, 2024 due to the anticipated increase in our G-SIB surcharge.

The Corporation is also required to maintain a minimum supplementary leverage ratio (SLR) of 3.0 percent plus a leverage buffer of 2.0 percent in order to avoid certain restrictions on capital distributions and discretionary bonus payments. Our insured depository institution subsidiaries are required to maintain a minimum 6.0 percent SLR to be considered well capitalized under the PCA framework.

Capital Composition and Ratios

Table 8 presents Bank of America Corporation's capital ratios and related information in accordance with Basel 3 Standardized and Advanced approaches as measured at June 30, 2023 and December 31, 2022. For the periods presented herein, the Corporation met the definition of well capitalized under current regulatory requirements.

Table 8 Bank of America Corporation Regulatory Capital under Basel 3

(Dollars in millions, except as noted)	Standardized Approach [1]	Advanced Approaches [1]	Regulatory Minimum [2]
	June 30, 2023		
Risk-based capital metrics:			
Common equity tier 1 capital	**$ 190,113**	**$ 190,113**	
Tier 1 capital	**218,503**	**218,503**	
Total capital [3]	**248,023**	**239,279**	
Risk-weighted assets (in billions)	**1,639**	**1,436**	
Common equity tier 1 capital ratio	**11.6 %**	**13.2 %**	**10.4 %**
Tier 1 capital ratio	**13.3**	**15.2**	**11.9**
Total capital ratio	**15.1**	**16.7**	**13.9**
Leverage-based metrics:			
Adjusted quarterly average assets (in billions) [4]	**$ 3,098**	**$ 3,098**	
Tier 1 leverage ratio	**7.1 %**	**7.1 %**	**4.0**
Supplementary leverage exposure (in billions)		**$ 3,642**	
Supplementary leverage ratio		**6.0 %**	**5.0**
	December 31, 2022		
Risk-based capital metrics:			
Common equity tier 1 capital	$ 180,060	$ 180,060	
Tier 1 capital	208,446	208,446	
Total capital [3]	238,773	230,916	
Risk-weighted assets (in billions)	1,605	1,411	
Common equity tier 1 capital ratio	11.2 %	12.8 %	10.4 %
Tier 1 capital ratio	13.0	14.8	11.9
Total capital ratio	14.9	16.4	13.9
Leverage-based metrics:			
Adjusted quarterly average assets (in billions) [4]	$ 2,997	$ 2,997	
Tier 1 leverage ratio	7.0 %	7.0 %	4.0
Supplementary leverage exposure (in billions)		$ 3,523	
Supplementary leverage ratio		5.9 %	5.0

(1) Capital ratios as of June 30, 2023 and December 31, 2022 are calculated using the regulatory capital rule that allows a five-year transition period related to the adoption of the current expected credit losses (CECL) accounting standard on January 1, 2020.
(2) The CET1 capital regulatory minimum is the sum of the CET1 capital ratio minimum of 4.5 percent, our G-SIB surcharge of 2.5 percent and our capital conservation buffer of 2.5 percent (under the Advanced approaches) or the SCB of 3.4 percent (under the Standardized approach), as applicable, at both June 30, 2023 and December 31, 2022. The countercyclical capital buffer was zero for both periods. The SLR regulatory minimum includes a leverage buffer of 2.0 percent.
(3) Total capital under the Advanced approaches differs from the Standardized approach due to differences in the amount permitted in Tier 2 capital related to the qualifying allowance for credit losses.
(4) Reflects total average assets adjusted for certain Tier 1 capital deductions.

At June 30, 2023, CET1 capital was $190.1 billion, an increase of $10.1 billion from December 31, 2022, primarily due to earnings, partially offset by dividends and common stock repurchases. Tier 1 capital increased $10.1 billion primarily driven by the same factors as CET1 capital. Total capital under the Standardized approach increased $9.3 billion primarily due to the same factors driving the increase in Tier 1 capital and an increase in the adjusted allowance for credit losses included in Tier 2 capital, partially offset by a decrease in subordinated debt. RWA under the Standardized approach, which yielded the lower CET1 capital ratio at June 30, 2023, increased $34.2 billion during the six months ended June 30, 2023 to $1,639 billion primarily due to higher counterparty exposures in *Global Markets* and loan growth. Supplementary leverage exposure at June 30, 2023 increased $118.2 billion primarily due to higher cash held at central banks, partially offset by lower debt securities balances.

Table 9 shows the capital composition at June 30, 2023 and December 31, 2022.

Table 9 Capital Composition under Basel 3

(Dollars in millions)	June 30 2023	December 31 2022
Total common shareholders' equity	**$ 254,922**	$ 244,800
CECL transitional amount [1]	**1,254**	1,881
Goodwill, net of related deferred tax liabilities	**(68,644)**	(68,644)
Deferred tax assets arising from net operating loss and tax credit carryforwards	**(7,757)**	(7,776)
Intangibles, other than mortgage servicing rights, net of related deferred tax liabilities	**(1,523)**	(1,554)
Defined benefit pension plan net assets	**(898)**	(867)
Cumulative unrealized net (gain) loss related to changes in fair value of financial liabilities attributable to own creditworthiness, net-of-tax	**956**	496
Accumulated net (gain) loss on certain cash flow hedges [2]	**11,886**	11,925
Other	**(83)**	(201)
Common equity tier 1 capital	**190,113**	180,060
Qualifying preferred stock, net of issuance cost	**28,396**	28,396
Other	**(6)**	(10)
Tier 1 capital	**218,503**	208,446
Tier 2 capital instruments	**17,066**	18,751
Qualifying allowance for credit losses [3]	**12,684**	11,739
Other	**(230)**	(163)
Total capital under the Standardized approach	**248,023**	238,773
Adjustment in qualifying allowance for credit losses under the Advanced approaches [3]	**(8,744)**	(7,857)
Total capital under the Advanced approaches	**$ 239,279**	$ 230,916

(1) June 30, 2023 and December 31, 2022 include 50 percent and 75 percent of the CECL transition provision's impact as of December 31, 2021.
(2) Includes amounts in accumulated other comprehensive income (OCI) related to the hedging of items that are not recognized at fair value on the Consolidated Balance Sheet.
(3) Includes the impact of transition provisions related to the CECL accounting standard.

Table 10 shows the components of RWA as measured under Basel 3 at June 30, 2023 and December 31, 2022.

Table 10 Risk-weighted Assets under Basel 3

	Standardized Approach	**Advanced Approaches**	Standardized Approach	Advanced Approaches
(Dollars in billions)	**June 30, 2023**		December 31, 2022	
Credit risk	**$ 1,571**	**$ 961**	$ 1,538	$ 939
Market risk	**68**	**67**	67	67
Operational risk	**n/a**	**364**	n/a	364
Risks related to credit valuation adjustments	**n/a**	**44**	n/a	41
Total risk-weighted assets	**$ 1,639**	**$ 1,436**	$ 1,605	$ 1,411

n/a = not applicable

Bank of America, N.A. Regulatory Capital

Table 11 presents regulatory capital information for BANA in accordance with Basel 3 Standardized and Advanced approaches as measured at June 30, 2023 and December 31, 2022. BANA met the definition of well capitalized under the PCA framework for both periods.

Table 11 Bank of America, N.A. Regulatory Capital under Basel 3

(Dollars in millions, except as noted)	Standardized Approach [1]	Advanced Approaches [1]	Regulatory Minimum [2]
	June 30, 2023		
Risk-based capital metrics:			
Common equity tier 1 capital	**$ 185,255**	**$ 185,255**	
Tier 1 capital	**185,255**	**185,255**	
Total capital [3]	**199,351**	**190,817**	
Risk-weighted assets (in billions)	**1,394**	**1,099**	
Common equity tier 1 capital ratio	**13.3 %**	**16.9 %**	**7.0 %**
Tier 1 capital ratio	**13.3**	**16.9**	**8.5**
Total capital ratio	**14.3**	**17.4**	**10.5**
Leverage-based metrics:			
Adjusted quarterly average assets (in billions) [4]	**$ 2,433**	**$ 2,433**	
Tier 1 leverage ratio	**7.6 %**	**7.6 %**	**5.0**
Supplementary leverage exposure (in billions)		**$ 2,872**	
Supplementary leverage ratio		**6.5 %**	**6.0**
	December 31, 2022		
Risk-based capital metrics:			
Common equity tier 1 capital	$ 181,089	$ 181,089	
Tier 1 capital	181,089	181,089	
Total capital [3]	194,254	186,648	
Risk-weighted assets (in billions)	1,386	1,087	
Common equity tier 1 capital ratio	13.1 %	16.7 %	7.0 %
Tier 1 capital ratio	13.1	16.7	8.5
Total capital ratio	14.0	17.2	10.5
Leverage-based metrics:			
Adjusted quarterly average assets (in billions) [4]	$ 2,358	$ 2,358	
Tier 1 leverage ratio	7.7 %	7.7 %	5.0
Supplementary leverage exposure (in billions)		$ 2,785	
Supplementary leverage ratio		6.5 %	6.0

(1) Capital ratios as of June 30, 2023 and December 31, 2022 are calculated using the regulatory capital rule that allows a five-year transition period related to the adoption of the CECL accounting standard on January 1, 2020.
(2) Risk-based capital regulatory minimums at both June 30, 2023 and December 31, 2022 are the minimum ratios under Basel 3 including a capital conservation buffer of 2.5 percent. The regulatory minimums for the leverage ratios as of both period ends are the percent required to be considered well capitalized under the PCA framework.
(3) Total capital under the Advanced approaches differs from the Standardized approach due to differences in the amount permitted in Tier 2 capital related to the qualifying allowance for credit losses.
(4) Reflects total average assets adjusted for certain Tier 1 capital deductions.

Total Loss-Absorbing Capacity Requirements

Total loss-absorbing capacity (TLAC) consists of the Corporation's Tier 1 capital and eligible long-term debt issued directly by the Corporation. Eligible long-term debt for TLAC ratios is comprised of unsecured debt that has a remaining maturity of at least one year and satisfies additional requirements as prescribed in the TLAC final rule. As with the risk-based capital ratios and SLR, the Corporation is required to maintain TLAC ratios in excess of minimum requirements plus applicable buffers to avoid restrictions on capital distributions and discretionary bonus payments. Table 12 presents the Corporation's TLAC and long-term debt ratios and related information as of June 30, 2023 and December 31, 2022.

Table 12 Bank of America Corporation Total Loss-Absorbing Capacity and Long-Term Debt

(Dollars in millions)	TLAC [1]	Regulatory Minimum [2]	Long-term Debt	Regulatory Minimum [3]
	June 30, 2023			
Total eligible balance	$ 472,014		$ 239,853	
Percentage of risk-weighted assets [4]	28.8 %	22.0 %	14.6 %	8.5 %
Percentage of supplementary leverage exposure	13.0	9.5	6.6	4.5
	December 31, 2022			
Total eligible balance	$ 465,451		$ 243,833	
Percentage of risk-weighted assets [4]	29.0 %	22.0 %	15.2 %	8.5 %
Percentage of supplementary leverage exposure	13.2	9.5	6.9	4.5

(1) As of June 30, 2023 and December 31, 2022, TLAC ratios are calculated using the regulatory capital rule that allows a five-year transition period related to the adoption of the CECL accounting standard on January 1, 2020.
(2) The TLAC RWA regulatory minimum consists of 18.0 percent plus a TLAC RWA buffer comprised of 2.5 percent plus the Method 1 G-SIB surcharge of 1.5 percent. The countercyclical buffer is zero for both periods. The TLAC supplementary leverage exposure regulatory minimum consists of 7.5 percent plus a 2.0 percent TLAC leverage buffer. The TLAC RWA and leverage buffers must be comprised solely of CET1 capital and Tier 1 capital, respectively.
(3) The long-term debt RWA regulatory minimum is comprised of 6.0 percent plus an additional 2.5 percent requirement based on the Corporation's Method 2 G-SIB surcharge. The long-term debt leverage exposure regulatory minimum is 4.5 percent.
(4) The approach that yields the higher RWA is used to calculate TLAC and long-term debt ratios, which was the Standardized approach as of June 30, 2023 and December 31, 2022.

Regulatory Capital and Securities Regulation

The Corporation's principal U.S. broker-dealer subsidiaries are BofA Securities, Inc. (BofAS), Merrill Lynch Professional Clearing Corp. (MLPCC) and Merrill Lynch, Pierce, Fenner & Smith Incorporated (MLPF&S). The Corporation's principal European broker-dealer subsidiaries are Merrill Lynch International (MLI) and BofA Securities Europe SA (BofASE).

The U.S. broker-dealer subsidiaries are subject to the net capital requirements of Rule 15c3-1 under the Exchange Act. BofAS computes its minimum capital requirements as an alternative net capital broker-dealer under Rule 15c3-1e, and MLPCC and MLPF&S compute their minimum capital requirements in accordance with the alternative standard under Rule 15c3-1. BofAS and MLPCC are also registered as futures commission merchants and are subject to Commodity Futures Trading Commission (CFTC) Regulation 1.17. The U.S. broker-dealer subsidiaries are also registered with the Financial Industry Regulatory Authority, Inc. (FINRA). Pursuant to FINRA Rule 4110, FINRA may impose higher net capital requirements than Rule 15c3-1 under the Exchange Act with respect to each of the broker-dealers.

BofAS provides institutional services, and in accordance with the alternative net capital requirements, is required to maintain tentative net capital in excess of $5.0 billion and net capital in excess of the greater of $1.0 billion or a certain percentage of its reserve requirement in addition to a certain percentage of securities-based swap risk margin. BofAS must also notify the SEC in the event its tentative net capital is less than $6.0 billion. BofAS is also required to hold a certain percentage of its customers' and affiliates' risk-based margin in order to meet its CFTC minimum net capital requirement. At June 30, 2023, BofAS had tentative net capital of $22.0 billion. BofAS also had regulatory net capital of $19.8 billion, which exceeded the minimum requirement of $4.5 billion.

MLPCC is a fully-guaranteed subsidiary of BofAS and provides clearing and settlement services as well as prime brokerage and arranged financing services for institutional clients. At June 30, 2023, MLPCC's regulatory net capital of $7.4 billion exceeded the minimum requirement of $1.5 billion.

MLPF&S provides retail services. At June 30, 2023, MLPF&S' regulatory net capital was $5.9 billion, which exceeded the minimum requirement of $146 million.

Our European broker-dealers are subject to requirements from U.S. and non-U.S. regulators. MLI, a U.K. investment firm, is regulated by the Prudential Regulation Authority and the FCA and is subject to certain regulatory capital requirements. At June 30, 2023, MLI's capital resources were $33.6 billion, which exceeded the minimum Pillar 1 requirement of $11.3 billion.

BofASE, an authorized credit institution with its head office located in France, is regulated by the Autorité de Contrôle Prudentiel et de Résolution and the Autorité des Marchés Financiers, and supervised under the Single Supervisory Mechanism by the European Central Bank. At June 30, 2023, BofASE's capital resources were $9.5 billion, which exceeded the minimum Pillar 1 requirement of $3.4 billion.

In addition, MLI and BofASE became conditionally registered with the SEC as security-based swap dealers in the fourth quarter of 2021, and maintained net liquid assets at June 30, 2023 that exceeded the applicable minimum requirements under the Exchange Act.

Liquidity Risk

Funding and Liquidity Risk Management

Our primary liquidity risk management objective is to meet expected or unexpected cash flow and collateral requirements, including payments under long-term debt agreements, commitments to extend credit and customer deposit withdrawals, while continuing to support our businesses and customers under a range of economic conditions. To achieve that objective, we analyze and monitor our liquidity risk under expected and stressed conditions, maintain liquidity and access to diverse funding sources, including our stable deposit base, and seek to align liquidity-related incentives and risks. These liquidity risk management practices have allowed us to effectively manage the market stress from increased volatility due to the failure of certain financial institutions in the first half of 2023. Our practices have also allowed us to effectively manage market fluctuations from the rising interest rate environment, inflationary pressures and changes in the macroeconomic environment.

We define liquidity as readily available assets, limited to cash and high-quality, liquid, unencumbered securities that we can use to meet our contractual and contingent financial obligations as they arise. We manage our liquidity position through line-of-business and ALM activities, as well as through our legal entity funding strategy, on both a forward and current (including intraday) basis under both expected and stressed conditions. We believe that a centralized approach to funding and liquidity management enhances our ability to monitor liquidity requirements, maximizes access to funding sources, minimizes borrowing costs and facilitates timely responses to liquidity events. For more information on the Corporation's liquidity risks, see the Liquidity section within Item 1A. Risk Factors of the Corporation's 2022 Annual Report on Form 10-K. For more information regarding global funding and liquidity risk management, as well as liquidity sources, liquidity arrangements, contingency planning and credit ratings discussed below, see Liquidity Risk in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

NB Holdings Corporation

Bank of America Corporation, as the parent company (the Parent), which is a separate and distinct legal entity from our bank and nonbank subsidiaries, has an intercompany arrangement with our wholly-owned holding company subsidiary, NB Holdings Corporation (NB Holdings). We have transferred, and agreed to transfer, additional Parent assets not required to satisfy anticipated near-term expenditures to NB Holdings. The Parent is expected to continue to have access to the same flow of dividends, interest and other amounts of cash necessary to service its debt, pay dividends and perform other obligations as it would have had it not entered into these arrangements and transferred any assets. These arrangements support our preferred single point of entry resolution strategy, under which only the Parent would be resolved under the U.S. Bankruptcy Code.

Global Liquidity Sources and Other Unencumbered Assets

We maintain liquidity available to the Corporation, including the Parent and selected subsidiaries, in the form of cash and high-quality, liquid, unencumbered securities. Our liquidity buffer, referred to as Global Liquidity Sources (GLS), is comprised of assets that are readily available to the Parent and selected subsidiaries, including holding company, bank and broker-dealer subsidiaries, even during stressed market conditions. Our cash is primarily on deposit with the Federal Reserve Bank and, to a lesser extent, central banks outside of the U.S. We limit the composition of high-quality, liquid, unencumbered securities to U.S. government securities, U.S. agency securities, U.S. agency mortgage-backed securities and other investment-grade securities, and a select group of non-U.S. government securities. We can obtain cash for these securities, even in stressed conditions, through repurchase agreements or outright sales. We hold our GLS in legal entities that allow us to meet the liquidity requirements of our global businesses, and we consider the impact of potential regulatory, tax, legal and other restrictions that could limit the transferability of funds among entities.

Table 13 presents average GLS for the three months ended June 30, 2023 and December 31, 2022.

Table 13 **Average Global Liquidity Sources**

	Three Months Ended	
(Dollars in billions)	**June 30 2023**	December 31 2022
Bank entities	**$ 693**	$ 694
Nonbank and other entities [(1)]	**174**	174
Total Average Global Liquidity Sources	**$ 867**	$ 868

(1) Nonbank includes Parent, NB Holdings and other regulated entities.

Our bank subsidiaries' liquidity is primarily driven by deposit and lending activity, as well as securities valuation and net debt activity. Bank subsidiaries can also generate incremental liquidity by pledging a range of unencumbered loans and securities to certain Federal Home Loan Banks (FHLBs) and the Federal Reserve Discount Window. The cash we could have obtained by borrowing against this pool of specifically-identified eligible assets was $331 billion and $348 billion at June 30, 2023 and December 31, 2022. We have established operational procedures to enable us to borrow against these assets, including regularly monitoring our total pool of eligible loans and securities collateral. Eligibility is defined in guidelines from the FHLBs and the Federal Reserve and is subject to change at their discretion. Due to regulatory restrictions, liquidity generated by the bank subsidiaries can generally be used only to fund obligations within the bank subsidiaries, and transfers to the Parent or nonbank subsidiaries may be subject to prior regulatory approval.

Liquidity is also held in nonbank entities, including the Parent, NB Holdings and other regulated entities. The Parent and NB Holdings liquidity is typically in the form of cash deposited at BANA, which is excluded from the liquidity at bank subsidiaries, and high-quality, liquid, unencumbered securities. Liquidity held in other regulated entities, comprised primarily of broker-dealer subsidiaries, is primarily available to meet the obligations of that entity, and transfers to the Parent or to any other subsidiary may be subject to prior regulatory approval due to regulatory restrictions and minimum requirements. Our other regulated entities also hold unencumbered investment-grade securities and equities that we believe could be used to generate additional liquidity.

Table 14 presents the composition of average GLS for the three months ended June 30, 2023 and December 31, 2022.

Table 14 **Average Global Liquidity Sources Composition**

	Three Months Ended	
(Dollars in billions)	**June 30 2023**	December 31 2022
Cash on deposit	**$ 355**	$ 174
U.S. Treasury securities	**134**	252
U.S. agency securities, mortgage-backed securities, and other investment-grade securities	**364**	427
Non-U.S. government securities	**14**	15
Total Average Global Liquidity Sources	**$ 867**	$ 868

Our GLS are substantially the same in composition to what qualifies as High Quality Liquid Assets (HQLA) under the final U.S. Liquidity Coverage Ratio (LCR) rules. However, HQLA for purposes of calculating LCR is not reported at market value, but at a lower value that incorporates regulatory deductions and the exclusion of excess liquidity held at certain subsidiaries. The LCR is calculated as the amount of a financial institution's unencumbered HQLA relative to the estimated net cash outflows the institution could encounter over a 30-day period of significant liquidity stress, expressed as a percentage. Our average consolidated HQLA, on a net basis, was $596 billion and $605 billion for the three months ended June 30, 2023 and December 31, 2022. For the same periods, the average consolidated LCR was 119 percent and 120 percent. Our LCR fluctuates due to normal business flows from customer activity.

Liquidity Stress Analysis

We utilize liquidity stress analysis to assist us in determining the appropriate amounts of liquidity to maintain at the Parent and our subsidiaries to meet contractual and contingent cash outflows under a range of scenarios. For more information on liquidity stress analysis, see Liquidity Risk – Liquidity Stress

Analysis in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Net Stable Funding Ratio

The Net Stable Funding Ratio (NSFR) is a liquidity requirement for large banks to maintain a minimum level of stable funding over a one-year period. The requirement is intended to support the ability of banks to lend to households and businesses in both normal and adverse economic conditions and is complementary to the LCR, which focuses on short-term liquidity risks. The U.S. NSFR applies to the Corporation on a consolidated basis and to our insured depository institutions. For the three months ended March 31, 2023 and June 30, 2023, the average consolidated NSFR was 119 percent and 120 percent.

Diversified Funding Sources

We fund our assets primarily with a mix of deposits, and secured and unsecured liabilities through a centralized, globally coordinated funding approach diversified across products, programs, markets, currencies and investor groups. We fund a substantial portion of our lending activities through our deposits, which were $1.88 trillion and $1.93 trillion at June 30, 2023 and December 31, 2022. Our trading activities in other regulated entities are primarily funded on a secured basis through securities lending and repurchase agreements, and these amounts will vary based on customer activity and market conditions.

Deposits

Our deposit base is well-diversified by clients, geography and product type across our business segments. At June 30, 2023, 54 percent of our deposits were in *Consumer Banking*, 16 percent in *GWIM* and 26 percent in *Global Banking*. We consider a substantial portion of our deposit base to be a stable, low-cost and consistent source of liquidity. At June 30, 2023, approximately 67 percent of consumer and small business deposits and 79 percent of U.S. deposits in *Global Banking* were held by clients who have had accounts with us for 10 or more years. In addition, at June 30, 2023 and December 31, 2022, 31 percent and 34 percent of our deposits were noninterest-bearing and included operating accounts of our consumer and commercial clients. Deposits at June 30, 2023 decreased $53.1 billion, or three percent, from December 31, 2022 primarily due to an increase in customer debt payments, customers' movement of balances to higher yielding investment alternatives and seasonal outflows.

Long-term Debt

During the six months ended June 30, 2023, we issued $30.5 billion of long-term debt consisting of $13.8 billion of notes issued by Bank of America Corporation, substantially all of which were TLAC compliant, $7.5 billion of notes issued by Bank of America, N.A. and $9.2 billion of other debt.

During the six months ended June 30, 2023, we had total long-term debt maturities and redemptions in the aggregate of $21.9 billion consisting of $15.0 billion for Bank of America Corporation, $3.1 billion for Bank of America, N.A. and $3.8 billion of other debt. Table 15 presents the carrying value of aggregate annual contractual maturities of long-term debt at June 30, 2023.

Table 15 Long-term Debt by Maturity

(Dollars in millions)	Remainder of 2023	2024	2025	2026	2027	Thereafter	Total
Bank of America Corporation							
Senior notes [1]	$ 3,670	$ 13,026	$ 25,023	$ 24,139	$ 19,028	$ 119,852	**$ 204,738**
Senior structured notes	528	569	567	1,063	614	10,024	**13,365**
Subordinated notes	—	3,158	5,095	4,871	2,125	10,217	**25,466**
Junior subordinated notes	—	—	—	—	189	556	**745**
Total Bank of America Corporation	4,198	16,753	30,685	30,073	21,956	140,649	**244,314**
Bank of America, N.A.							
Senior notes	—	5,470	—	—	—	—	**5,470**
Subordinated notes	—	—	—	—	—	1,468	**1,468**
Advances from Federal Home Loan Banks	100	1,000	14	9	4	52	**1,179**
Securitizations and other Bank VIEs [2]	995	999	2,248	999	—	61	**5,302**
Other	71	655	104	52	26	4	**912**
Total Bank of America, N.A.	1,166	8,124	2,366	1,060	30	1,585	**14,331**
Other debt							
Structured Liabilities	2,571	5,211	2,520	3,439	1,950	11,340	**27,031**
Nonbank VIEs [2]	—	6	—	7	—	384	**397**
Total other debt	2,571	5,217	2,520	3,446	1,950	11,724	**27,428**
Total long-term debt	**$ 7,935**	**$ 30,094**	**$ 35,571**	**$ 34,579**	**$ 23,936**	**$ 153,958**	**$ 286,073**

(1) Total includes $180.8 billion of outstanding notes that are both TLAC eligible and callable one year before their stated maturities, including $5.5 billion during the remainder of 2023, and $21.7 billion, $21.5 billion, $19.0 billion and $24.4 billion during each year of 2024 through 2027, respectively, and $88.7 billion thereafter. For more information on our TLAC eligible and callable outstanding notes, see Liquidity Risk – Diversified Funding Sources in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

(2) Represents liabilities of consolidated variable interest entities (VIEs) included in total long-term debt on the Consolidated Balance Sheet.

Total long-term debt increased $10.1 billion to $286.1 billion during the six months ended June 30, 2023 primarily due to debt issuances and valuation adjustments, partially offset by debt maturities, redemptions and repurchases. We may, from time to time, purchase outstanding debt instruments in various transactions, depending on market conditions, liquidity and other factors. Our other regulated entities may also make markets in our debt instruments to provide liquidity for investors.

During the six months ended June 30, 2023, we issued $7.5 billion of structured notes, which are debt obligations that pay investors returns linked to other debt or equity securities, indices, currencies or commodities. These structured notes are typically issued to meet client demand, and notes with certain attributes may also be TLAC eligible. We typically hedge the returns we are obligated to pay on these liabilities with derivatives and/or investments in the underlying instruments, so that from a funding perspective, the cost is similar to our other unsecured long-term debt. We could be required to settle certain structured note obligations for cash or other securities prior to maturity under certain circumstances, which we consider for liquidity planning purposes. We believe, however, that a portion of such borrowings will remain outstanding beyond the earliest put or redemption date.

Substantially all of our senior and subordinated debt obligations contain no provisions that could trigger a requirement for an early repayment, require additional collateral support, result in changes to terms, accelerate maturity or create additional financial obligations upon an adverse change in our credit ratings, financial ratios, earnings, cash flows or stock price. For more information on long-term debt funding, including issuances and maturities and redemptions, see *Note 11 – Long-term Debt* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

We use derivative transactions to manage the duration, interest rate and currency risks of our borrowings, considering the characteristics of the assets they are funding. For more information on our ALM activities, see Interest Rate Risk Management for the Banking Book on page 45.

Credit Ratings

Credit ratings and outlooks are opinions expressed by rating agencies on our creditworthiness and that of our obligations or securities, including long-term debt, short-term borrowings, preferred stock and other securities, including asset securitizations. Table 16 presents the Corporation's current long-term/short-term senior debt ratings and outlooks expressed by the rating agencies.

The ratings and outlooks from Fitch Ratings for the Corporation and its subsidiaries have not changed from those disclosed in the Corporation's 2022 Annual Report on Form 10-K.

On May 3, 2023, Moody's Investors Service (Moody's) upgraded its long-term senior debt ratings of the Corporation by one notch to A1 from A2, and also upgraded the long-term senior debt ratings of BANA to Aa1 from Aa2. Moody's concurrently affirmed its Prime-1 short-term ratings of the Corporation and BANA. Moody's cited the Corporation's strengthened capital, improved earnings profile and ongoing commitment to maintaining a restrained risk appetite as rationale for the upgrade. These actions concluded the review for upgrade that Moody's initiated on January 23, 2023. The agency's rating outlook for all our long-term ratings is currently stable.

On March 31, 2023, Standard & Poor's Global Ratings (S&P) affirmed the current ratings of the Corporation and its subsidiaries, while at the same time revising its rating outlook to Stable from Positive. S&P concurrently changed its outlooks on three other large U.S. bank holding companies to Stable from Positive, noting that the agency has reduced its upside expectations for bank ratings in the near term.

For more information on additional collateral and termination payments that could be required in connection with certain over-the-counter derivative contracts and other trading agreements in the event of a credit rating downgrade, see *Note 3 – Derivatives* to the Consolidated Financial Statements herein and Item 1A. Risk Factors of the Corporation's 2022 Annual Report on Form 10-K.

Table 16 Senior Debt Ratings

	Moody's Investors Service			Standard & Poor's Global Ratings			Fitch Ratings		
	Long-term	Short-term	Outlook	Long-term	Short-term	Outlook	Long-term	Short-term	Outlook
Bank of America Corporation	A1	P-1	Stable	A-	A-2	Stable	AA-	F1+	Stable
Bank of America, N.A.	Aa1	P-1	Stable	A+	A-1	Stable	AA	F1+	Stable
Bank of America Europe Designated Activity Company	NR	NR	NR	A+	A-1	Stable	AA	F1+	Stable
Merrill Lynch, Pierce, Fenner & Smith Incorporated	NR	NR	NR	A+	A-1	Stable	AA	F1+	Stable
BofA Securities, Inc.	NR	NR	NR	A+	A-1	Stable	AA	F1+	Stable
Merrill Lynch International	NR	NR	NR	A+	A-1	Stable	AA	F1+	Stable
BofA Securities Europe SA	NR	NR	NR	A+	A-1	Stable	AA	F1+	Stable

NR = not rated

Finance Subsidiary Issuers and Parent Guarantor

BofA Finance LLC, a Delaware limited liability company (BofA Finance), is a consolidated finance subsidiary of the Corporation that has issued and sold, and is expected to continue to issue and sell, its senior unsecured debt securities (Guaranteed Notes) that are fully and unconditionally guaranteed by the Corporation. The Corporation guarantees the due and punctual payment, on demand, of amounts payable on the Guaranteed Notes if not paid by BofA Finance. In addition, each of BAC Capital Trust XIII, BAC Capital Trust XIV and BAC Capital Trust XV, Delaware statutory trusts (collectively, the Trusts) is a 100 percent owned finance subsidiary of the Corporation that has issued and sold trust preferred securities (the Trust Preferred Securities) or capital securities (the Capital Securities and, together with the Guaranteed Notes and the Trust Preferred Securities, the Guaranteed Securities), as applicable, that remained outstanding at June 30, 2023. The Corporation has fully and unconditionally guaranteed (or effectively provided for the full and unconditional guarantee of) all such securities issued by such finance subsidiaries. For more information regarding such guarantees by the Corporation, see Liquidity Risk – Finance Subsidiary Issuers and Parent Guarantor in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Representations and Warranties Obligations

For information on representations and warranties obligations in connection with the sale of mortgage loans, see *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Credit Risk Management

For information on our credit risk management activities, see the following: Consumer Portfolio Credit Risk Management, Commercial Portfolio Credit Risk Management on page 34, Non-U.S. Portfolio on page 40, Allowance for Credit Losses on page 41, and *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses* to the Consolidated Financial Statements. For information on the Corporation's loan modification programs, see *Note 1 – Summary of Significant Accounting Principles* and *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses* to the Consolidated Financial Statements. For more information on the Corporation's credit risks, see the Credit section within Item 1A. Risk Factors of the Corporation's 2022 Annual Report on Form 10-K.

During the six months ended June 30, 2023, our asset quality remained relatively healthy. Our net charge-off ratio increased primarily driven by credit card loans, as delinquency trends continue to slowly increase off of historic lows; however, they remain below pre-pandemic levels. Nonperforming loans increased modestly compared to December 31, 2022 driven by the commercial real estate office property type, while commercial reservable criticized exposure increased driven by both office as well as other industries that have been impacted by the current environment. Uncertainty remains regarding broader economic impacts as a result of inflationary pressures, rising rates and the current geopolitical environment and could lead to adverse impacts to credit quality metrics in future periods.

Consumer Portfolio Credit Risk Management

Credit risk management for the consumer portfolio begins with initial underwriting and continues throughout a borrower's credit cycle. Statistical techniques in conjunction with experiential judgment are used in all aspects of portfolio management including underwriting, product pricing, risk appetite, setting credit limits, and establishing operating processes and metrics to quantify and balance risks and returns. Statistical models are built using detailed behavioral information from external sources, such as credit bureaus, and/or internal historical experience and are a component of our consumer credit risk management process. These models are used in part to assist in making both new and ongoing credit decisions as well as portfolio management strategies, including authorizations and line management, collection practices and strategies, and determination of the allowance for loan and lease losses and allocated capital for credit risk.

Consumer Credit Portfolio

During the six months ended June 30, 2023, the U.S. unemployment rate remained relatively stable and home prices have shown signs of stabilization in recent months. During the three and six months ended June 30, 2023, net charge-offs increased $195 million and $508 million to $720 million and $1.4 billion compared to the same periods in 2022 primarily due to late-stage delinquent credit card loans that were charged off.

The consumer allowance for loan and lease losses increased $513 million during the six months ended June 30, 2023 to $7.8 billion. For more information, see Allowance for Credit Losses on page 41.

For more information on our accounting policies regarding delinquencies, nonperforming status, charge-offs and loan modifications for the consumer portfolio, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K and *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses* to the Consolidated Financial Statements.

Table 17 presents our outstanding consumer loans and leases, consumer nonperforming loans and accruing consumer loans past due 90 days or more.

Table 17 Consumer Credit Quality

	Outstandings		Nonperforming		Accruing Past Due 90 Days or More	
(Dollars in millions)	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022
Residential mortgage [1]	**$ 228,915**	$ 229,670	**$ 2,140**	$ 2,167	**$ 288**	$ 368
Home equity	**25,536**	26,563	**482**	510	**—**	—
Credit card	**97,009**	93,421	**n/a**	n/a	**896**	717
Direct/Indirect consumer [2]	**104,412**	106,236	**107**	77	**1**	2
Other consumer	**132**	156	**—**	—	**—**	—
Consumer loans excluding loans accounted for under the fair value option	**$ 456,004**	$ 456,046	**$ 2,729**	$ 2,754	**$ 1,185**	$ 1,087
Loans accounted for under the fair value option [3]	**266**	339				
Total consumer loans and leases	**$ 456,270**	$ 456,385				
Percentage of outstanding consumer loans and leases [4]	**n/a**	n/a	**0.60 %**	0.60 %	**0.26 %**	0.24 %
Percentage of outstanding consumer loans and leases, excluding fully-insured loan portfolios [4]	**n/a**	n/a	**0.61**	0.62	**0.20**	0.16

(1) Residential mortgage loans accruing past due 90 days or more are fully-insured loans. At June 30, 2023 and December 31, 2022, residential mortgage included $198 million and $260 million of loans on which interest had been curtailed by the Federal Housing Administration (FHA), and therefore were no longer accruing interest, although principal was still insured, and $90 million and $108 million of loans on which interest was still accruing.

(2) Outstandings primarily includes auto and specialty lending loans and leases of $53.3 billion and $51.8 billion, U.S. securities-based lending loans of $47.3 billion and $50.4 billion at June 30, 2023 and December 31, 2022, and non-U.S. consumer loans of $2.9 billion and $3.0 billion at June 30, 2023 and December 31, 2022.

(3) For more information on the fair value option, see *Note 15 – Fair Value Option* to the Consolidated Financial Statements.

(4) Excludes consumer loans accounted for under the fair value option. At June 30, 2023 and December 31, 2022, $4 million and $7 million of loans accounted for under the fair value option were past due 90 days or more and not accruing interest.

n/a = not applicable

Table 18 presents net charge-offs and related ratios for consumer loans and leases.

Table 18 Consumer Net Charge-offs and Related Ratios

	Net Charge-offs				Net Charge-off Ratios (1)			
	Three Months Ended June 30		Six Months Ended June 30		Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Residential mortgage	**$ 2**	$ 86	**$ 3**	$ 76	**—%**	0.15 %	**—%**	0.07 %
Home equity	**(16)**	(24)	**(28)**	(54)	**(0.25)**	(0.37)	**(0.21)**	(0.40)
Credit card	**610**	323	**1,111**	620	**2.60**	1.60	**2.41**	1.57
Direct/Indirect consumer	**17**	4	**18**	8	**0.06**	0.02	**0.03**	0.02
Other consumer	**107**	136	**269**	215	**n/m**	n/m	**n/m**	n/m
Total	**$ 720**	$ 525	**$ 1,373**	$ 865	**0.64**	0.47	**0.61**	0.40

(1) Net charge-off ratios are calculated as annualized net charge-offs divided by average outstanding loans and leases, excluding loans accounted for under the fair value option.
n/m = not meaningful

We believe that the presentation of information adjusted to exclude the impact of the fully-insured loan portfolio and loans accounted for under the fair value option is more representative of the ongoing operations and credit quality of the business. As a result, in the following tables and discussions of the residential mortgage and home equity portfolios, we exclude loans accounted for under the fair value option and provide information that excludes the impact of the fully-insured loan portfolio in certain credit quality statistics.

Residential Mortgage

The residential mortgage portfolio made up the largest percentage of our consumer loan portfolio at 50 percent of consumer loans and leases at June 30, 2023. Approximately 51 percent of the residential mortgage portfolio was in *Consumer Banking*, 46 percent was in *GWIM* and the remaining portion was in *All Other*.

Outstanding balances in the residential mortgage portfolio decreased $755 million during the six months ended June 30, 2023, as paydowns outpaced new originations.

At June 30, 2023 and December 31, 2022, the residential mortgage portfolio included $11.2 billion and $11.7 billion of outstanding fully-insured loans, of which $2.1 billion and $2.2 billion had FHA insurance, with the remainder protected by Fannie Mae long-term standby agreements.

Table 19 presents certain residential mortgage key credit statistics on both a reported basis and excluding the fully-insured loan portfolio. The following discussion presents the residential mortgage portfolio excluding the fully-insured loan portfolio.

Table 19 Residential Mortgage – Key Credit Statistics

	Reported Basis (1)		Excluding Fully-insured Loans (1)	
(Dollars in millions)	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022
Outstandings	**$ 228,915**	$ 229,670	**$ 217,745**	$ 217,976
Accruing past due 30 days or more	**1,422**	1,471	**898**	844
Accruing past due 90 days or more	**288**	368	**—**	—
Nonperforming loans (2)	**2,140**	2,167	**2,140**	2,167
Percent of portfolio				
Refreshed LTV greater than 90 but less than or equal to 100	**1 %**	1 %	**1 %**	1 %
Refreshed LTV greater than 100	**—**	—	**1**	—
Refreshed FICO below 620	**1**	1	**1**	1

(1) Outstandings, accruing past due, nonperforming loans and percentages of portfolio exclude loans accounted for under the fair value option.
(2) Includes loans that are contractually current that have not yet demonstrated a sustained period of payment performance following a modification.

Nonperforming outstanding balances in the residential mortgage portfolio decreased $27 million during the six months ended June 30, 2023 primarily due to returns to performing and paydowns outpacing new additions. Of the nonperforming residential mortgage loans at June 30, 2023, $1.4 billion, or 64 percent, were current on contractual payments. Loans accruing past due 30 days or more increased $54 million.

Net charge-offs of $2 million and $3 million for the three and six months ended June 30, 2023 decreased $84 million and $73 million compared to the same periods in 2022, primarily due to loan sales that occurred in the second quarter of 2022.

Of the $217.7 billion in total residential mortgage loans outstanding at June 30, 2023, 28 percent were originated as interest-only loans. The outstanding balance of interest-only residential mortgage loans that had entered the amortization period was $3.5 billion, or six percent, at June 30, 2023. Residential mortgage loans that have entered the amortization period generally experience a higher rate of early stage delinquencies and nonperforming status compared to the residential mortgage portfolio as a whole. At June 30, 2023, $74 million, or two percent, of outstanding interest-only residential mortgages that had entered the amortization period were accruing past due 30 days or more compared to $898 million, or less than one percent, for the entire residential mortgage portfolio. In addition, at June 30, 2023, $184 million, or five percent, of outstanding interest-only residential mortgage loans that had entered the amortization period were nonperforming, of which $63 million were contractually current. Loans that have yet to enter the amortization period in our interest-only residential mortgage portfolio are primarily well-collateralized loans to our wealth management clients and have an interest-only period of 3 to 10 years. Approximately 97 percent of these loans that have yet to enter the amortization period will not be required to make a fully-amortizing payment until 2025 or later.

Table 20 presents outstandings, nonperforming loans and net charge-offs by certain state concentrations for the residential mortgage portfolio. The Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area (MSA) within California represented 14 percent of outstandings at both June 30, 2023 and December 31, 2022. In the New York area, the New York-Northern New Jersey-Long Island MSA made up 15 percent of outstandings at both June 30, 2023 and December 31, 2022.

Table 20 Residential Mortgage State Concentrations

	Outstandings [1]		Nonperforming [1]		Net Charge-offs			
					Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**2023**	2022	**2023**	2022
California	**$ 80,843**	$ 80,878	**$ 661**	$ 656	**$ (1)**	$ 43	**$ (1)**	$ 40
New York	**26,080**	26,228	**323**	328	**1**	5	**3**	5
Florida	**15,350**	15,225	**136**	145	**—**	—	**(2)**	(1)
Texas	**9,438**	9,399	**86**	88	**1**	1	**1**	1
New Jersey	**8,741**	8,810	**96**	96	**(1)**	3	**(1)**	3
Other	**77,293**	77,436	**838**	854	**2**	34	**3**	28
Residential mortgage loans	**$ 217,745**	$ 217,976	**$ 2,140**	$ 2,167	**$ 2**	$ 86	**$ 3**	$ 76
Fully-insured loan portfolio	**11,170**	11,694						
Total residential mortgage loan portfolio	**$ 228,915**	$ 229,670						

(1) Outstandings and nonperforming loans exclude loans accounted for under the fair value option.

Home Equity

At June 30, 2023, the home equity portfolio made up six percent of the consumer portfolio and was comprised of home equity lines of credit (HELOCs), home equity loans and reverse mortgages. HELOCs generally have an initial draw period of 10 years, and after the initial draw period ends, the loans generally convert to 15- or 20-year amortizing loans. We no longer originate home equity loans or reverse mortgages.

At June 30, 2023, 83 percent of the home equity portfolio was in *Consumer Banking*, eight percent was in *All Other* and the remainder of the portfolio was primarily in *GWIM*. Outstanding balances in the home equity portfolio decreased $1.0 billion during the six months ended June 30, 2023 primarily due to paydowns outpacing draws on existing lines and new originations. Of the total home equity portfolio at June 30, 2023 and December 31, 2022, $10.4 billion and $11.1 billion, or 41 percent and 42 percent, were in first-lien positions. At June 30, 2023, outstanding balances in the home equity portfolio that were in a second-lien or more junior-lien position and where we also held the first-lien loan totaled $4.4 billion, or 17 percent of our total home equity portfolio.

Unused HELOCs totaled $44.6 billion and $42.4 billion at June 30, 2023 and December 31, 2022. The HELOC utilization rate was 35 percent and 38 percent at June 30, 2023 and December 31, 2022.

Table 21 presents certain home equity portfolio key credit statistics.

Table 21 Home Equity – Key Credit Statistics [1]

(Dollars in millions)	**June 30 2023**	December 31 2022
Outstandings	**$ 25,536**	$ 26,563
Accruing past due 30 days or more	**93**	96
Nonperforming loans [2]	**482**	510
Percent of portfolio		
Refreshed CLTV greater than 90 but less than or equal to 100	**—%**	—%
Refreshed CLTV greater than 100	**—**	—
Refreshed FICO below 620	**2**	2

(1) Outstandings, accruing past due, nonperforming loans and percentages of the portfolio exclude loans accounted for under the fair value option.
(2) Includes loans that are contractually current that have not yet demonstrated a sustained period of payment performance following a modification.

Nonperforming outstanding balances in the home equity portfolio decreased $28 million to $482 million at June 30, 2023, primarily driven by returns to performing status and paydowns outpacing new additions. Of the nonperforming home equity loans at June 30, 2023, $266 million, or 55 percent, were current on contractual payments. In addition, $135 million, or 28 percent, were 180 days or more past due and had been written down to the estimated fair value of the collateral, less costs to sell. Accruing loans that were 30 days or more past due decreased $3 million during the six months ended June 30, 2023.

During the three months ended June 30, 2023 net recoveries decreased $8 million to $16 million compared to the same period in 2022. During the six months ended June 30, 2023, net recoveries decreased $26 million to $28 million compared to the same period in 2022.

Of the $25.5 billion in total home equity portfolio outstandings at June 30, 2023, as shown in Table 21, 12 percent require interest-only payments. The outstanding balance of HELOCs that had reached the end of their draw period and entered the amortization period was $4.6 billion at June 30, 2023. The HELOCs that have entered the amortization period have experienced a higher percentage of early stage delinquencies and nonperforming status when compared to the HELOC portfolio as a whole. At June 30, 2023, $49 million, or one percent, of outstanding HELOCs that had entered the amortization period were accruing past due 30 days or more. In addition, at June 30, 2023, $318 million, or seven percent, were nonperforming.

For our interest-only HELOC portfolio, we do not actively track how many of our home equity customers pay only the minimum amount due on their home equity loans and lines; however, we can infer some of this information through a review of our HELOC portfolio that we service and is still in its revolving period. During the three months ended June 30, 2023, 23 percent of these customers with an outstanding balance did not pay any principal on their HELOCs.

Table 22 presents outstandings, nonperforming balances and net recoveries by certain state concentrations for the home equity portfolio. In the New York area, the New York-Northern New Jersey-Long Island MSA made up 12 percent of the outstanding home equity portfolio at both June 30, 2023 and December 31, 2022. The Los Angeles-Long Beach-Santa Ana MSA within California made up 10 percent and 11 percent of the outstanding home equity portfolio at June 30, 2023 and December 31, 2022.

Table 22 Home Equity State Concentrations

	Outstandings [(1)]		Nonperforming [(1)]		Net Charge-Offs			
					Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**2023**	2022	**2023**	2022
California	**$ 7,014**	$ 7,406	**$ 115**	$ 119	**$ (1)**	$ (7)	**$ (2)**	$ (13)
Florida	**2,618**	2,743	**57**	63	**(2)**	(6)	**(5)**	(13)
New Jersey	**1,927**	2,047	**49**	53	**(3)**	2	**(3)**	—
New York	**1,676**	1,806	**75**	80	**(2)**	(1)	**(4)**	(3)
Texas	**1,314**	1,284	**15**	14	**—**	—	**—**	—
Other	**10,987**	11,277	**171**	181	**(8)**	(12)	**(14)**	(25)
Total home equity loan portfolio	**$ 25,536**	$ 26,563	**$ 482**	$ 510	**$ (16)**	$ (24)	**$ (28)**	$ (54)

(1) Outstandings and nonperforming loans exclude loans accounted for under the fair value option.

Credit Card

At June 30, 2023, 97 percent of the credit card portfolio was managed in *Consumer Banking* with the remainder in *GWIM*. Outstandings in the credit card portfolio increased $3.6 billion during the six months ended June 30, 2023 to $97.0 billion as purchase volume and card transfers more than offset payments. Net charge-offs increased $287 million to $610 million and $491 million to $1.1 billion during the three and six months ended June 30, 2023 compared to the same periods in 2022, as late-stage credit card delinquencies were charged off. Credit card loans 30 days or more past due and still accruing interest increased $306 million, and 90 days or more past due and still accruing interest increased $179 million at June 30, 2023.

Unused lines of credit for credit card increased to $387.3 billion at June 30, 2023 from $370.1 billion at December 31, 2022.

Table 23 presents certain state concentrations for the credit card portfolio.

Table 23 Credit Card State Concentrations

	Outstandings		Accruing Past Due 90 Days or More		Net Charge-offs			
					Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**2023**	2022	**2023**	2022
California	**$ 15,961**	$ 15,363	**$ 158**	$ 126	**$ 109**	$ 56	**$ 197**	$ 106
Florida	**9,899**	9,512	**119**	100	**80**	44	**149**	86
Texas	**8,483**	8,125	**89**	72	**57**	30	**105**	57
New York	**5,553**	5,381	**69**	56	**51**	24	**90**	46
Washington	**5,095**	4,844	**30**	21	**18**	9	**32**	16
Other	**52,018**	50,196	**431**	342	**295**	160	**538**	309
Total credit card portfolio	**$ 97,009**	$ 93,421	**$ 896**	$ 717	**$ 610**	$ 323	**$ 1,111**	$ 620

Direct/Indirect Consumer

At June 30, 2023, 51 percent of the direct/indirect portfolio was included in *Consumer Banking* (consumer auto and recreational vehicle lending) and 49 percent was included in *GWIM* (principally securities-based lending loans). Outstandings in the direct/indirect portfolio decreased $1.8 billion during the six months ended June 30, 2023 to $104.4 billion driven by declines in securities-based lending stemming from higher paydown activity due to higher interest rates, partially offset by growth in our auto portfolio.

Table 24 presents certain state concentrations for the direct/indirect consumer loan portfolio.

Table 24 Direct/Indirect State Concentrations

	Outstandings		Nonperforming		Net Charge-offs			
					Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**2023**	2022	**2023**	2022
California	**$ 15,180**	$ 15,516	**$ 18**	$ 12	**$ 4**	$ 2	**$ 6**	$ 3
Florida	**13,577**	13,783	**12**	10	**3**	(1)	**3**	—
Texas	**9,931**	9,837	**11**	9	**3**	—	**3**	1
New York	**7,437**	7,891	**8**	5	**2**	1	**2**	1
New Jersey	**4,418**	4,456	**4**	3	**1**	—	**1**	—
Other	**53,869**	54,753	**54**	38	**4**	2	**3**	3
Total direct/indirect loan portfolio	**$ 104,412**	$ 106,236	**$ 107**	$ 77	**$ 17**	$ 4	**$ 18**	$ 8

Other Consumer

Other consumer primarily consists of deposit overdraft balances. Net charge-offs increased $54 million to $269 million during the six months ended June 30, 2023 compared to the same period in 2022, primarily driven by higher overdraft losses due to industry-wide check fraud activity.

Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity

Table 25 presents nonperforming consumer loans, leases and foreclosed properties activity for the three and six months ended June 30, 2023 and 2022. During the six months ended June 30, 2023, nonperforming consumer loans decreased $25 million to $2.7 billion primarily due to returns to performing status and paydowns outpacing new additions.

At June 30, 2023, $605 million, or 22 percent, of nonperforming loans were 180 days or more past due and had been written down to their estimated property value less costs to sell. In addition, at June 30, 2023, $1.7 billion, or 61 percent, of nonperforming consumer loans were current and classified as nonperforming loans in accordance with applicable policies.

Foreclosed properties decreased $24 million during the six months ended June 30, 2023 to $97 million.

Table 25 Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2023**	2022	**2023**	2022
Nonperforming loans and leases, beginning of period	**$ 2,714**	$ 3,104	**$ 2,754**	$ 2,989
Additions	**258**	365	**511**	1,009
Reductions:				
Paydowns and payoffs	**(131)**	(147)	**(234)**	(322)
Sales	**(2)**	(269)	**(4)**	(400)
Returns to performing status [1]	**(92)**	(157)	**(262)**	(359)
Charge-offs	**(13)**	(23)	**(25)**	(38)
Transfers to foreclosed properties	**(5)**	(7)	**(11)**	(13)
Total net additions/(reductions) to nonperforming loans and leases	**15**	(238)	**(25)**	(123)
Total nonperforming loans and leases, June 30	**2,729**	2,866	**2,729**	2,866
Foreclosed properties, June 30	**97**	115	**97**	115
Nonperforming consumer loans, leases and foreclosed properties, June 30	**$ 2,826**	$ 2,981	**$ 2,826**	$ 2,981
Nonperforming consumer loans and leases as a percentage of outstanding consumer loans and leases [2]	**0.60 %**	0.64 %		
Nonperforming consumer loans, leases and foreclosed properties as a percentage of outstanding consumer loans, leases and foreclosed properties [2]	**0.62**	0.66		

(1) Consumer loans may be returned to performing status when all principal and interest is current and full repayment of the remaining contractual principal and interest is expected, or when the loan otherwise becomes well-secured and is in the process of collection.
(2) Outstanding consumer loans and leases exclude loans accounted for under the fair value option.

Commercial Portfolio Credit Risk Management

Commercial credit risk is evaluated and managed with the goal that concentrations of credit exposure continue to be aligned with our risk appetite. We review, measure and manage concentrations of credit exposure by industry, product, geography, customer relationship and loan size. We also review, measure and manage commercial real estate loans by geographic location and property type. In addition, within our non-U.S. portfolio, we evaluate exposures by region and by country. Tables 30, 32 and 35 summarize our concentrations. We also utilize syndications of exposure to third parties, loan sales, hedging and other risk mitigation techniques to manage the size and risk profile of the commercial credit portfolio. For more information on our industry concentrations, see Table 32 and Commercial Portfolio Credit Risk Management – Industry Concentrations on page 38.

For more information on our accounting policies regarding delinquencies, nonperforming status, net charge-offs and loan modifications for the commercial portfolio, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K and *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses* to the Consolidated Financial Statements.

Commercial Credit Portfolio

Outstanding commercial loans and leases increased $5.6 billion during the six months ended June 30, 2023 due to growth in commercial real estate and our U.S. commercial and industrial portfolio, primarily in *Global Banking*. During the six months ended June 30, 2023, commercial credit quality deteriorated as nonperforming commercial loans and reservable criticized utilized exposure increased primarily driven by the commercial real estate office property type; however, the commercial net charge-off ratio of 0.10 percent for the six months ended June 30, 2023 remained low.

With the exception of the office property type, which is further discussed in the Commercial Real Estate section herein, credit quality of commercial real estate borrowers has remained relatively stable since December 31, 2022; however, we are closely monitoring borrower performance in the increased rate environment and emerging trends. Many commercial real estate markets are still experiencing disruptions in demand, supply chain challenges, tenant difficulties and challenging capital markets. Recent demand for office space has been stagnant, and future demand for office space continues to be uncertain as companies evaluate space needs with employment models that utilize a mix of remote and conventional office use.

The commercial allowance for loan and lease losses decreased $245 million during the six months ended June 30, 2023 to $5.2 billion, primarily driven by certain improved macroeconomic conditions. For more information, see Allowance for Credit Losses on page 41.

Total commercial utilized credit exposure increased $157 million during the six months ended June 30, 2023 to $705.0 billion primarily driven by higher loans and leases. The utilization rate for loans and leases, standby letters of credit (SBLCs) and financial guarantees, and commercial letters of credit, in the aggregate, was 56 percent at both June 30, 2023 and December 31, 2022.

Table 26 presents commercial credit exposure by type for utilized, unfunded and total binding committed credit exposure. Commercial utilized credit exposure includes SBLCs and financial guarantees and commercial letters of credit that have been issued and for which we are legally bound to advance funds under prescribed conditions during a specified time period, and excludes exposure related to trading account assets. Although funds have not yet been advanced, these exposure types are considered utilized for credit risk management purposes.

Table 26 Commercial Credit Exposure by Type

	Commercial Utilized (1)		Commercial Unfunded (2, 3, 4)		Total Commercial Committed	
(Dollars in millions)	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022
Loans and leases	**$ 594,954**	$ 589,362	**$ 497,788**	$ 487,772	**$ 1,092,742**	$ 1,077,134
Derivative assets (5)	**46,475**	48,642	**—**	—	**46,475**	48,642
Standby letters of credit and financial guarantees	**32,000**	33,376	**1,880**	1,266	**33,880**	34,642
Debt securities and other investments	**18,624**	20,195	**3,298**	2,551	**21,922**	22,746
Loans held-for-sale	**5,691**	6,112	**2,277**	3,729	**7,968**	9,841
Operating leases	**5,546**	5,509	**—**	—	**5,546**	5,509
Commercial letters of credit	**887**	973	**256**	28	**1,143**	1,001
Other	**847**	698	**—**	—	**847**	698
Total	**$ 705,024**	$ 704,867	**$ 505,499**	$ 495,346	**$ 1,210,523**	$ 1,200,213

(1) Commercial utilized exposure includes loans of $4.1 billion and $5.4 billion accounted for under the fair value option at June 30, 2023 and December 31, 2022.
(2) Commercial unfunded exposure includes commitments accounted for under the fair value option with a notional amount of $2.6 billion and $3.0 billion at June 30, 2023 and December 31, 2022.
(3) Excludes unused business card lines, which are not legally binding.
(4) Includes the notional amount of unfunded legally binding lending commitments, net of amounts distributed (i.e., syndicated or participated) to other financial institutions. The distributed amounts were $10.4 billion at both June 30, 2023 and December 31, 2022.
(5) Derivative assets are carried at fair value, reflect the effects of legally enforceable master netting agreements and have been reduced by cash collateral of $30.9 billion and $33.8 billion at June 30, 2023 and December 31, 2022. Not reflected in utilized and committed exposure is additional non-cash derivative collateral held of $52.1 billion and $51.6 billion at June 30, 2023 and December 31, 2022, which consists primarily of other marketable securities.

Nonperforming commercial loans increased $343 million during the six months ended June 30, 2023 primarily in commercial real estate, partially offset by non-U.S. commercial and U.S. commercial. Table 27 presents our commercial loans and leases portfolio and related credit quality information at June 30, 2023 and December 31, 2022.

Table 27 Commercial Credit Quality

(Dollars in millions)	Outstandings June 30 2023	Outstandings December 31 2022	Nonperforming June 30 2023	Nonperforming December 31 2022	Accruing Past Due 90 Days or More June 30 2023	Accruing Past Due 90 Days or More December 31 2022
Commercial and industrial:						
U.S. commercial	**$ 360,796**	$ 358,481	**$ 476**	$ 553	**$ 132**	$ 190
Non-U.S. commercial	**123,518**	124,479	**84**	212	**13**	25
Total commercial and industrial	**484,314**	482,960	**560**	765	**145**	215
Commercial real estate	**74,290**	69,766	**816**	271	**7**	46
Commercial lease financing	**13,493**	13,644	**6**	4	**2**	8
	572,097	566,370	**1,382**	1,040	**154**	269
U.S. small business commercial [1]	**18,796**	17,560	**15**	14	**201**	355
Commercial loans excluding loans accounted for under the fair value option	**$ 590,893**	$ 583,930	**$ 1,397**	$ 1,054	**$ 355**	$ 624
Loans accounted for under the fair value option [2]	**4,061**	5,432				
Total commercial loans and leases	**$ 594,954**	$ 589,362				

(1) Includes card-related products.
(2) Commercial loans accounted for under the fair value option includes U.S. commercial of $2.3 billion and $2.9 billion and non-U.S. commercial of $1.8 billion and $2.5 billion at June 30, 2023 and December 31, 2022. For more information on the fair value option, see *Note 15 – Fair Value Option* to the Consolidated Financial Statements.

Table 28 presents net charge-offs and related ratios for our commercial loans and leases for the three and six months ended June 30, 2023 and 2022.

Table 28 Commercial Net Charge-offs and Related Ratios

	Net Charge-offs				Net Charge-off Ratios [1]			
	Three Months Ended June 30		Six Months Ended June 30		Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Commercial and industrial:								
U.S. commercial	**$ 5**	$ 15	**$ 52**	$ 1	**0.01 %**	0.02 %	**0.03 %**	— %
Non-U.S. commercial	**—**	(5)	**20**	(4)	**—**	(0.01)	**0.03**	(0.01)
Total commercial and industrial	**5**	10	**72**	(3)	**—**	0.01	**0.03**	—
Commercial real estate	**69**	(4)	**91**	19	**0.37**	(0.03)	**0.25**	0.06
Commercial lease financing	**1**	4	**—**	4	**—**	0.13	**—**	0.06
	75	10	**163**	20	**0.05**	0.01	**0.06**	0.01
U.S. small business commercial	**74**	36	**140**	78	**1.62**	0.79	**1.55**	0.87
Total commercial	**$ 149**	$ 46	**$ 303**	$ 98	**0.10**	0.03	**0.10**	0.04

(1) Net charge-off ratios are calculated as annualized net charge-offs divided by average outstanding loans and leases, excluding loans accounted for under the fair value option.

Table 29 presents commercial reservable criticized utilized exposure by loan type. Criticized exposure corresponds to the Special Mention, Substandard and Doubtful asset categories as defined by regulatory authorities. Total commercial reservable criticized utilized exposure increased $2.2 billion during the six months ended June 30, 2023 driven by the commercial real estate office property type and U.S. commercial, partially offset by non-U.S. commercial. At both June 30, 2023 and December 31, 2022, 88 percent of commercial reservable criticized utilized exposure was secured.

Table 29 Commercial Reservable Criticized Utilized Exposure [1, 2]

(Dollars in millions)	June 30, 2023		December 31, 2022	
Commercial and industrial:				
U.S. commercial	**$ 11,712**	**3.03 %**	$ 10,724	2.78 %
Non-U.S. commercial	**2,096**	**1.63**	2,665	2.04
Total commercial and industrial	**13,808**	**2.68**	13,389	2.59
Commercial real estate	**6,934**	**9.17**	5,201	7.30
Commercial lease financing	**208**	**1.54**	240	1.76
	20,950	**3.46**	18,830	3.13
U.S. small business commercial	**519**	**2.76**	444	2.53
Total commercial reservable criticized utilized exposure	**$ 21,469**	**3.44**	$ 19,274	3.12

(1) Total commercial reservable criticized utilized exposure includes loans and leases of $20.6 billion and $18.5 billion and commercial letters of credit of $888 million and $817 million at June 30, 2023 and December 31, 2022.
(2) Percentages are calculated as commercial reservable criticized utilized exposure divided by total commercial reservable utilized exposure for each exposure category.

Commercial and Industrial

Commercial and industrial loans include U.S. commercial and non-U.S. commercial portfolios.

U.S. Commercial

At June 30, 2023, 63 percent of the U.S. commercial loan portfolio, excluding small business, was managed in *Global Banking*, 21 percent in *Global Markets*, 14 percent in *GWIM* (loans that provide financing for asset purchases, business investments and other liquidity needs for high net worth clients) and the remainder primarily in *Consumer Banking*. U.S. commercial loans increased $2.3 billion, or one percent, during the six months ended June 30, 2023 primarily driven by *Global*

Markets. Reservable criticized utilized exposure increased $988 million, or nine percent, driven by increases across a broad range of industries.

Non-U.S. Commercial

At June 30, 2023, 64 percent of the non-U.S. commercial loan portfolio was managed in *Global Banking*, 35 percent in *Global Markets* and the remainder in *GWIM*. Non-U.S. commercial loans remained relatively unchanged during the six months ended June 30, 2023. Reservable criticized utilized exposure decreased $569 million, or 21 percent, due in part to paydowns and sales of Russian exposure. For information on the non-U.S. commercial portfolio, see Non-U.S. Portfolio on page 40.

Commercial Real Estate

Commercial real estate primarily includes commercial loans secured by non-owner-occupied real estate and is dependent on the sale or lease of the real estate as the primary source of repayment. Outstanding loans increased $4.5 billion, or six percent, during the six months ended June 30, 2023 to $74.3 billion with increases across multiple property types. The commercial real estate portfolio is primarily managed in *Global Banking* and consists of loans made primarily to public and private developers, and commercial real estate firms. The portfolio remains diversified across property types and geographic regions. California represented the largest state concentration at 19 percent of the commercial real estate portfolio at both June 30, 2023 and December 31, 2022.

Reservable criticized utilized exposure increased $1.7 billion, or 33 percent during the six months ended June 30, 2023, primarily driven by office loans. Office loans represented the largest property type concentration at 25 percent of the commercial real estate portfolio at June 30, 2023, but only represented approximately two percent of total loans for the Corporation. This property type is roughly 75 percent Class A and has origination loan-to-value of approximately 55 percent. Reservable criticized exposure for the office property type was $4.5 billion at June 30, 2023, and approximately $9.2 billion of office loans are scheduled to mature by the end of 2024. Although we have seen collateral value declines in this property type, the majority of these loans remain well secured as of June 30, 2023.

For the three and six months ended June 30, 2023 and 2022, we continued to see low default rates. We use a number of proactive risk mitigation initiatives to reduce adversely rated exposure in the commercial real estate portfolio, including transfers of deteriorating exposures for management by independent special asset officers and the pursuit of loan restructurings or asset sales to achieve the best results for our customers and the Corporation.

Table 30 presents outstanding commercial real estate loans by geographic region, based on the geographic location of the collateral, and by property type.

Table 30 Outstanding Commercial Real Estate Loans

(Dollars in millions)	June 30 2023	December 31 2022
By Geographic Region		
Northeast	**$ 16,567**	$ 15,601
California	**14,179**	13,360
Southwest	**9,469**	8,723
Southeast	**8,428**	7,713
Florida	**5,343**	5,374
Illinois	**3,591**	3,327
Midwest	**3,391**	3,419
Midsouth	**2,787**	2,716
Northwest	**1,986**	1,959
Non-U.S.	**6,170**	5,518
Other	**2,379**	2,056
Total outstanding commercial real estate loans	**$ 74,290**	$ 69,766
By Property Type		
Non-residential		
Office	**$ 18,273**	$ 18,230
Industrial / Warehouse	**14,445**	13,775
Multi-family rental	**11,239**	10,412
Shopping centers /Retail	**5,832**	5,830
Hotel / Motels	**5,716**	5,696
Multi-use	**2,958**	2,403
Other	**14,441**	12,241
Total non-residential	**72,904**	68,587
Residential	**1,386**	1,179
Total outstanding commercial real estate loans	**$ 74,290**	$ 69,766

U.S. Small Business Commercial

The U.S. small business commercial loan portfolio is comprised of small business card loans and small business loans primarily managed in *Consumer Banking,* and included $545 million and $1.0 billion of PPP loans outstanding at June 30, 2023 and December 31, 2022. PPP loans decreased $464 million during the six months ended June 30, 2023 primarily due to repayment of the loans by the Small Business Administration (SBA) under the terms of the program. Excluding PPP, credit card-related products were 55 percent and 53 percent of the U.S. small business commercial portfolio at June 30, 2023 and December 31, 2022 and represented 98 percent of the net charge-offs for both the three and six months ended June 30, 2023 compared to 100 percent for both the three and six months ended June 30, 2022. The decrease of $154 million in accruing past due 90 days or more for the six months ended June 30, 2023 was driven by PPP loans, which are fully guaranteed by the SBA.

Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity

Table 31 presents the nonperforming commercial loans, leases and foreclosed properties activity during the three and six months ended June 30, 2023 and 2022. Nonperforming loans do not include loans accounted for under the fair value option. During the six months ended June 30, 2023, nonperforming commercial loans and leases increased $343 million to $1.4 billion. At June 30, 2023, 98 percent of commercial nonperforming loans, leases and foreclosed properties were secured, and 58 percent were contractually current. Commercial nonperforming loans were carried at 86 percent of their unpaid principal balance, as the carrying value of these loans has been reduced to the estimated collateral value less costs to sell.

Table 31 Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity (1, 2)

	Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2023**	2022	**2023**	2022
Nonperforming loans and leases, beginning of period	**$ 1,204**	$ 1,521	**$ 1,054**	$ 1,578
Additions	**484**	321	**903**	504
Reductions:				
Paydowns	**(171)**	(342)	**(243)**	(501)
Sales	**(3)**	(16)	**(3)**	(41)
Returns to performing status (3)	**(7)**	(146)	**(59)**	(151)
Charge-offs	**(87)**	(40)	**(175)**	(52)
Transfers to foreclosed properties	**(23)**	—	**(23)**	—
Transfers to loans held-for-sale	**—**	—	**(57)**	(39)
Total net additions / (reductions) to nonperforming loans and leases	**193**	(223)	**343**	(280)
Total nonperforming loans and leases, June 30	**1,397**	1,298	**1,397**	1,298
Foreclosed properties, June 30	**51**	47	**51**	47
Nonperforming commercial loans, leases and foreclosed properties, June 30	**$ 1,448**	$ 1,345	**$ 1,448**	$ 1,345
Nonperforming commercial loans and leases as a percentage of outstanding commercial loans and leases (4)	**0.24 %**	0.22 %		
Nonperforming commercial loans, leases and foreclosed properties as a percentage of outstanding commercial loans, leases and foreclosed properties (4)	**0.25**	0.23		

(1) Balances do not include nonperforming loans held-for-sale of $174 million and $270 million at June 30, 2023 and 2022.
(2) Includes U.S. small business commercial activity. Small business card loans are excluded as they are not classified as nonperforming.
(3) Commercial loans and leases may be returned to performing status when all principal and interest is current and full repayment of the remaining contractual principal and interest is expected, when the loan otherwise becomes well-secured and is in the process of collection, or when a modified loan demonstrates a sustained period of payment performance.
(4) Outstanding commercial loans exclude loans accounted for under the fair value option.

Industry Concentrations

Table 32 presents commercial committed and utilized credit exposure by industry. For information on net notional credit protection purchased to hedge funded and unfunded exposures for which we elected the fair value option, as well as certain other credit exposures, see Commercial Portfolio Credit Risk Management – Risk Mitigation.

Commercial credit exposure is diversified across a broad range of industries. Total commercial committed exposure increased $10.3 billion during the six months ended June 30, 2023 to $1.2 trillion. The increase in commercial committed exposure was concentrated in Capital goods, Finance companies and Asset manager & funds.

For information on industry limits, see Commercial Portfolio Credit Risk Management – Industry Concentrations in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Asset managers and funds, our largest industry concentration with committed exposure of $168.1 billion, increased $3.0 billion during the six months ended June 30, 2023.

Real estate, our second largest industry concentration with committed exposure of $101.3 billion, increased $1.6 billion, or two percent, during the six months ended June 30, 2023. For more information on the commercial real estate and related portfolios, see Commercial Portfolio Credit Risk Management – Commercial Real Estate on page 37.

Capital goods, our third largest industry concentration with committed exposure of $92.9 billion, increased $5.6 billion, or six percent, during the six months ended June 30, 2023. The increase in committed exposure occurred primarily as a result of increases in Machinery and Trading companies and distributors, partially offset by a decrease in Industrial Conglomerates.

There is uncertainty in the U.S. and global economies due to various macroeconomic challenges including geopolitical, inflationary pressures and elevated interest rates, and a number of industries will likely continue to be adversely impacted due to these conditions. We continue to monitor all industries, particularly higher risk industries that are experiencing or could experience a more significant impact to their financial condition.

Table 32 Commercial Credit Exposure by Industry [1]

(Dollars in millions)	Commercial Utilized June 30 2023	Commercial Utilized December 31 2022	Total Commercial Committed [2] June 30 2023	Total Commercial Committed [2] December 31 2022
Asset managers & funds	**$ 104,838**	$ 106,842	**$ 168,062**	$ 165,087
Real estate [3]	**74,545**	72,180	**101,284**	99,722
Capital goods	**49,505**	45,580	**92,886**	87,314
Finance companies	**57,375**	55,248	**82,742**	79,546
Healthcare equipment and services	**34,511**	33,554	**61,174**	58,761
Materials	**26,192**	26,304	**55,838**	55,589
Retailing	**25,618**	24,785	**54,017**	53,714
Consumer services	**27,826**	26,980	**49,921**	47,372
Food, beverage and tobacco	**24,351**	23,232	**49,331**	47,486
Government & public education	**32,398**	34,861	**46,720**	48,134
Individuals and trusts	**32,930**	34,897	**43,957**	45,572
Commercial services and supplies	**24,588**	23,628	**42,500**	41,596
Utilities	**18,655**	20,292	**39,108**	40,164
Energy	**12,999**	15,132	**36,034**	36,043
Transportation	**23,486**	22,273	**35,317**	33,858
Technology hardware and equipment	**10,980**	11,441	**29,909**	29,825
Global commercial banks	**26,444**	27,217	**28,994**	29,293
Media	**14,558**	14,781	**26,377**	28,216
Software and services	**10,770**	12,961	**25,397**	25,633
Pharmaceuticals and biotechnology	**7,070**	7,547	**21,859**	26,208
Vehicle dealers	**14,245**	12,909	**21,228**	20,638
Consumer durables and apparel	**9,619**	10,009	**21,146**	21,389
Insurance	**10,591**	10,224	**20,096**	19,444
Telecommunication services	**9,901**	9,679	**17,370**	17,349
Automobiles and components	**8,060**	8,774	**15,979**	16,911
Food and staples retailing	**7,519**	7,157	**13,107**	11,908
Financial markets infrastructure (clearinghouses)	**3,013**	3,913	**5,797**	8,752
Religious and social organizations	**2,437**	2,467	**4,373**	4,689
Total commercial credit exposure by industry	**$ 705,024**	$ 704,867	**$ 1,210,523**	$ 1,200,213

(1) Includes U.S. small business commercial exposure.
(2) Includes the notional amount of unfunded legally binding lending commitments, net of amounts distributed (i.e., syndicated or participated) to other financial institutions. The distributed amounts were $10.4 billion at both June 30, 2023 and December 31, 2022.
(3) Industries are viewed from a variety of perspectives to best isolate the perceived risks. For purposes of this table, the real estate industry is defined based on the primary business activity of the borrowers or counterparties using operating cash flows and primary source of repayment as key factors.

Risk Mitigation

We purchase credit protection to cover the funded portion as well as the unfunded portion of certain credit exposures. To lower the cost of obtaining our desired credit protection levels, we may add credit exposure within an industry, borrower or counterparty group by selling protection.

At June 30, 2023 and December 31, 2022, net notional credit default protection purchased in our credit derivatives portfolio to hedge our funded and unfunded exposures for which we elected the fair value option, as well as certain other credit exposures, was $9.2 billion and $9.0 billion. We recorded net losses of $34 million and $111 million for the three and six months ended June 30, 2023 compared to net gains of $131 million and $122 million for the three and six months ended June 30, 2022. The gains and losses on these instruments were largely offset by gains and losses on the related exposures. The Value-at-Risk (VaR) results for these exposures are included in the fair value option portfolio information in Table 38. For more information, see Trading Risk Management on page 43.

Tables 33 and 34 present the maturity profiles and the credit exposure debt ratings of the net credit default protection portfolio at June 30, 2023 and December 31, 2022.

Table 33 Net Credit Default Protection by Maturity

	June 30 2023	December 31 2022
Less than or equal to one year	**51 %**	14 %
Greater than one year and less than or equal to five years	**48**	85
Greater than five years	**1**	1
Total net credit default protection	**100 %**	100 %

Table 34 Net Credit Default Protection by Credit Exposure Debt Rating

(Dollars in millions)	Net Notional [1] June 30, 2023	Percent of Total June 30, 2023	Net Notional [1] December 31, 2022	Percent of Total December 31, 2022
Ratings [2, 3]				
AAA	**$ (479)**	**5.2 %**	$ (379)	4.0 %
AA	**(871)**	**9.5**	(867)	10.0
A	**(4,248)**	**46.4**	(3,257)	36.0
BBB	**(1,910)**	**20.8**	(2,476)	28.0
BB	**(727)**	**7.9**	(1,049)	12.0
B	**(728)**	**7.9**	(676)	7.0
CCC and below	**(103)**	**1.1**	(93)	1.0
NR [4]	**(99)**	**1.2**	(182)	2.0
Total net credit default protection	**$ (9,165)**	**100.0 %**	$ (8,979)	100.0 %

(1) Represents net credit default protection purchased.
(2) Ratings are refreshed on a quarterly basis.
(3) Ratings of BBB- or higher are considered to meet the definition of investment grade.
(4) NR is comprised of index positions held and any names that have not been rated.

For more information on credit derivatives and counterparty credit risk valuation adjustments, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Non-U.S. Portfolio

Our non-U.S. credit and trading portfolios are subject to country risk. We define country risk as the risk of loss from unfavorable economic and political conditions, currency fluctuations, social instability and changes in government policies. A risk management framework is in place to measure, monitor and manage non-U.S. risk and exposures. In addition to the direct risk of doing business in a country, we also are exposed to indirect country risks (e.g., related to the collateral received on secured financing transactions or related to client clearing activities). These indirect exposures are managed in the normal course of business through credit, market and operational risk governance rather than through country risk governance. For more information on our non-U.S. credit and trading portfolios, see Non-U.S. Portfolio in theMD&A of the Corporation's 2022 Annual Report on Form 10-K. For more information on risks related to our non-U.S. portfolio, see the Geopolitical section within Item 1A. Risk Factors of the Corporation's 2022 Annual Report on Form 10-K.

Table 35 presents our 20 largest non-U.S. country exposures at June 30, 2023. These exposures accounted for 89 percent of our total non-U.S. exposure at both June 30, 2023 and December 31, 2022. Net country exposure for these 20 countries decreased $28.0 billion in 2023 primarily driven by decreases in Germany, Japan and Switzerland.

Table 35 Top 20 Non-U.S. Countries Exposure

(Dollars in millions)	Funded Loans and Loan Equivalents	Unfunded Loan Commitments	Net Counterparty Exposure	Securities/ Other Investments	Country Exposure at June 30 2023	Hedges and Credit Default Protection	**Net Country Exposure at June 30 2023**	Increase (Decrease) from December 31 2022
United Kingdom	$ 27,348	$ 18,007	$ 11,016	$ 3,584	$ 59,955	$ (2,899)	**$ 57,056**	$ 1,711
Germany	23,939	9,657	1,396	1,361	36,353	(3,146)	**33,207**	(12,519)
Canada	12,703	9,628	1,364	3,520	27,215	(352)	**26,863**	1,290
France	15,576	8,051	856	2,108	26,591	(2,195)	**24,396**	(2,197)
Australia	13,904	4,182	581	1,711	20,378	(245)	**20,133**	(84)
Brazil	8,890	1,247	1,315	4,267	15,719	(69)	**15,650**	3,150
Japan	8,078	1,755	1,705	2,804	14,342	(731)	**13,611**	(9,476)
India	6,613	246	487	3,973	11,319	(91)	**11,228**	459
China	5,415	296	1,174	2,784	9,669	(245)	**9,424**	(1,384)
Ireland	7,744	1,256	149	252	9,401	(51)	**9,350**	260
South Korea	6,119	807	488	1,135	8,549	(48)	**8,501**	(625)
Singapore	3,944	549	73	3,805	8,371	(27)	**8,344**	(1,263)
Mexico	4,460	1,596	524	1,380	7,960	(32)	**7,928**	536
Netherlands	2,543	4,611	654	718	8,526	(1,381)	**7,145**	(2,138)
Switzerland	3,779	3,104	267	508	7,658	(909)	**6,749**	(3,939)
Hong Kong	4,151	453	524	1,102	6,230	(16)	**6,214**	(1,057)
Spain	2,654	1,936	211	1,286	6,087	(402)	**5,685**	(156)
Italy	3,729	1,379	156	294	5,558	(1,138)	**4,420**	(1,248)
Belgium	1,360	1,715	317	1,069	4,461	(158)	**4,303**	440
Sweden	1,250	1,834	107	148	3,339	(503)	**2,836**	232
Total top 20 non-U.S. countries exposure	$ 164,199	$ 72,309	$ 23,364	$ 37,809	$ 297,681	$ (14,638)	**$ 283,043**	$ (28,008)

Our largest non-U.S. country exposure at June 30, 2023 was the United Kingdom with net exposure of $57.1 billion, which represents an increase of $1.7 billion from December 31, 2022. The increase was primarily driven by higher exposure with financial institutions and the central bank, partially offset by reduced corporate exposure. Our second largest non-U.S. country exposure was Germany with net exposure of $33.2 billion at June 30, 2023, a decrease of $12.5 billion from December 31, 2022. The decrease was primarily driven by lower deposits with the central bank.

Allowance for Credit Losses

The allowance for credit losses increased $116 million from December 31, 2022 to $14.3 billion at June 30, 2023, which included a $505 million reserve increase related to the consumer portfolio and a $389 million reserve decrease related to the commercial portfolio. The increase in the allowance reflected a reserve build in our consumer portfolio primarily due to credit card loan growth, partially offset by a reserve release in our commercial portfolio primarily driven by certain improved macroeconomic conditions. The allowance also includes the impact of the accounting change to remove the recognition and measurement guidance on troubled debt restructurings, which reduced the allowance for credit losses by $243 million on January 1, 2023. For more information on this change in accounting guidance, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements.

Table 36 presents an allocation of the allowance for credit losses by product type at June 30, 2023 and December 31, 2022.

Table 36 Allocation of the Allowance for Credit Losses by Product Type

(Dollars in millions)	Amount	Percent of Total	Percent of Loans and Leases Outstanding (1)	Amount	Percent of Total	Percent of Loans and Leases Outstanding (1)
	June 30, 2023			December 31, 2022		
Allowance for loan and lease losses						
Residential mortgage	**$ 366**	**2.83 %**	**0.16 %**	$ 328	2.59 %	0.14 %
Home equity	**61**	**0.47**	**0.24**	92	0.73	0.35
Credit card	**6,564**	**50.69**	**6.77**	6,136	48.38	6.57
Direct/Indirect consumer	**659**	**5.09**	**0.63**	585	4.61	0.55
Other consumer	**100**	**0.77**	**n/m**	96	0.76	n/m
Total consumer	**7,750**	**59.85**	**1.70**	7,237	57.07	1.59
U.S. commercial (2)	**2,846**	**21.98**	**0.75**	3,007	23.71	0.80
Non-U.S. commercial	**968**	**7.47**	**0.78**	1,194	9.41	0.96
Commercial real estate	**1,338**	**10.33**	**1.80**	1,192	9.40	1.71
Commercial lease financing	**48**	**0.37**	**0.35**	52	0.41	0.38
Total commercial	**5,200**	**40.15**	**0.88**	5,445	42.93	0.93
Allowance for loan and lease losses	**12,950**	**100.00 %**	**1.24**	12,682	100.00 %	1.22
Reserve for unfunded lending commitments	**1,388**			1,540		
Allowance for credit losses	**$ 14,338**			$ 14,222		

(1) Ratios are calculated as allowance for loan and lease losses as a percentage of loans and leases outstanding excluding loans accounted for under the fair value option.
(2) Includes allowance for loan and lease losses for U.S. small business commercial loans of $927 million and $844 million at June 30, 2023 and December 31, 2022.
n/m = not meaningful

Net charge-offs for the three and six months ended June 30, 2023 were $869 million and $1.7 billion compared to $571 million and $963 million for the same periods in 2022 primarily due to late-stage delinquent credit card loans that were charged off. The provision for credit losses increased $602 million to $1.1 billion and $1.5 billion to $2.1 billion for the three and six months ended June 30, 2023 compared to the same periods in 2022. The provision for credit losses for the current-year periods was driven by our consumer portfolio primarily due to credit card loan growth and asset quality, partially offset by certain improved macroeconomic conditions that primarily benefited our commercial portfolio. For the same periods in the prior year, the provision for credit losses was primarily driven by loan growth and a dampened macroeconomic outlook, partially offset by asset quality improvement and reduced COVID-19 pandemic uncertainties. In addition, the six-month period in the prior year was also driven by a reserve build related to Russian exposure. The provision for credit losses for the consumer portfolio, including unfunded lending commitments, increased $690 million to $1.1 billion and $1.6 billion to $2.0 billion for the three and six months ended June 30, 2023 compared to the same periods in 2022. The provision for credit losses for the commercial portfolio, including unfunded lending commitments, increased $46 million to $159 million and decreased $121 million to $10 million for the three and six months ended June 30, 2023 compared to the same periods in 2022.

Table 37 presents a rollforward of the allowance for credit losses, including certain loan and allowance ratios for the three and six months ended June 30, 2023 and 2022. For more information on the Corporation's credit loss accounting policies and activity related to the allowance for credit losses, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K and *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses* to the Consolidated Financial Statements.

Table 37 Allowance for Credit Losses

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Allowance for loan and lease losses, December 31	**n/a**	n/a	**$ 12,682**	$ 12,387
January 1, 2023 adoption of credit loss standard	**n/a**	n/a	**(243)**	n/a
Allowance for loan and lease losses, beginning of period	**$ 12,514**	$ 12,104	**12,439**	12,387
Loans and leases charged off				
Residential mortgage	**(10)**	(140)	**(18)**	(150)
Home equity	**(5)**	(20)	**(11)**	(33)
Credit card	**(756)**	(492)	**(1,406)**	(965)
Direct/Indirect consumer	**(56)**	(59)	**(96)**	(121)
Other consumer	**(112)**	(141)	**(283)**	(225)
Total consumer charge-offs	**(939)**	(852)	**(1,814)**	(1,494)
U.S. commercial [1]	**(106)**	(87)	**(240)**	(154)
Non-U.S. commercial	**(8)**	—	**(31)**	(2)
Commercial real estate	**(71)**	—	**(95)**	(23)
Commercial lease financing	**(1)**	(5)	**—**	(5)
Total commercial charge-offs	**(186)**	(92)	**(366)**	(184)
Total loans and leases charged off	**(1,125)**	(944)	**(2,180)**	(1,678)
Recoveries of loans and leases previously charged off				
Residential mortgage	**8**	54	**15**	74
Home equity	**21**	44	**39**	87
Credit card	**146**	169	**295**	345
Direct/Indirect consumer	**39**	55	**78**	113
Other consumer	**5**	5	**14**	10
Total consumer recoveries	**219**	327	**441**	629
U.S. commercial [2]	**27**	36	**48**	75
Non-U.S. commercial	**8**	5	**11**	6
Commercial real estate	**2**	4	**4**	4
Commercial lease financing	**—**	1	**—**	1
Total commercial recoveries	**37**	46	**63**	86
Total recoveries of loans and leases previously charged off	**256**	373	**504**	715
Net charge-offs	**(869)**	(571)	**(1,676)**	(963)
Provision for loan and lease losses	**1,309**	441	**2,209**	549
Other	**(4)**	(1)	**(22)**	—
Allowance for loan and lease losses, June 30	**12,950**	11,973	**12,950**	11,973
Reserve for unfunded lending commitments, beginning of period	**1,437**	1,379	**1,540**	1,456
Provision for unfunded lending commitments	**(50)**	82	**(153)**	4
Other	**1**	—	**1**	1
Reserve for unfunded lending commitments, June 30	**1,388**	1,461	**1,388**	1,461
Allowance for credit losses, June 30	**$ 14,338**	$ 13,434	**$ 14,338**	$ 13,434
Loan and allowance ratios [3] :				
Loans and leases outstanding at June 30	**$ 1,046,897**	$ 1,025,270	**$ 1,046,897**	$ 1,025,270
Allowance for loan and lease losses as a percentage of total loans and leases outstanding at June 30	**1.24 %**	1.17 %	**1.24 %**	1.17 %
Consumer allowance for loan and lease losses as a percentage of total consumer loans and leases outstanding at June 30	**1.70**	1.48	**1.70**	1.48
Commercial allowance for loan and lease losses as a percentage of total commercial loans and leases outstanding at June 30	**0.88**	0.93	**0.88**	0.93
Average loans and leases outstanding	**$ 1,041,976**	$ 1,008,826	**$ 1,039,172**	$ 989,764
Annualized net charge-offs as a percentage of average loans and leases outstanding	**0.33 %**	0.23 %	**0.33 %**	0.20 %
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases at June 30	**314**	288	**314**	288
Ratio of the allowance for loan and lease losses at June 30 to annualized net charge-offs	**3.71**	5.22	**3.83**	6.16
Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at June 30 [4]	**$ 5,481**	$ 6,591	**$ 5,481**	$ 6,591
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases, excluding the allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at June 30 [4]	**181 %**	129 %	**181 %**	129 %

(1) Includes U.S. small business commercial charge-offs of $84 million and $159 million for the three and six months ended June 30, 2023 compared to $51 million and $107 million for the same periods in 2022.
(2) Includes U.S. small business commercial recoveries of $10 million and $19 million for the three and six months ended June 30, 2023 compared to $15 million and $29 million for the same periods in 2022.
(3) Ratios are calculated as allowance for loan and lease losses as a percentage of loans and leases outstanding excluding loans accounted for under the fair value option.
(4) Primarily includes amounts related to credit card and unsecured consumer lending portfolios in *Consumer Banking*.
n/a = not applicable

Market Risk Management

For more information on our market risk management process, see Market Risk Management in the MD&A of the Corporation's 2022 Annual Report on Form 10-K. For more information on market risks, see the Market section within Item 1A. Risk Factors of the Corporation's 2022 Annual Report on Form 10-K.

Market risk is the risk that changes in market conditions may adversely impact the value of assets or liabilities, or otherwise negatively impact earnings. This risk is inherent in the financial instruments associated with our operations, primarily within our *Global Markets* segment. We are also exposed to these risks in other areas of the Corporation (e.g., our ALM activities). In the event of market stress, these risks could have a material impact on our results.

Trading Risk Management

To evaluate risks in our trading activities, we focus on the actual and potential volatility of revenues generated by individual positions as well as portfolios of positions. VaR is a common statistic used to measure market risk. Our primary VaR statistic is equivalent to a 99 percent confidence level, which means that for a VaR with a one-day holding period, there should not be losses in excess of VaR, on average, 99 out of 100 trading days.

Table 38 presents the total market-based portfolio VaR, which is the combination of the total covered positions (and less liquid trading positions) portfolio and the fair value option portfolio. For more information on the market risk VaR for trading activities, see Trading Risk Management in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

The total market-based portfolio VaR results in Table 38 include market risk to which we are exposed from all business segments, excluding credit valuation adjustment (CVA), DVA and related hedges. The majority of this portfolio is within the *Global Markets* segment.

Table 38 presents period-end, average, high and low daily trading VaR for the three months ended June 30, 2023, March 31, 2023 and June 30, 2022 using a 99 percent confidence level as well as average daily trading VaR for the six months ended June 30, 2023 and 2022. The amounts disclosed in Table 38 and Table 39 align to the view of covered positions used in the Basel 3 capital calculations. Foreign exchange and commodity positions are always considered covered positions, regardless of trading or banking treatment for the trade, except for structural foreign currency positions that are excluded with prior regulatory approval.

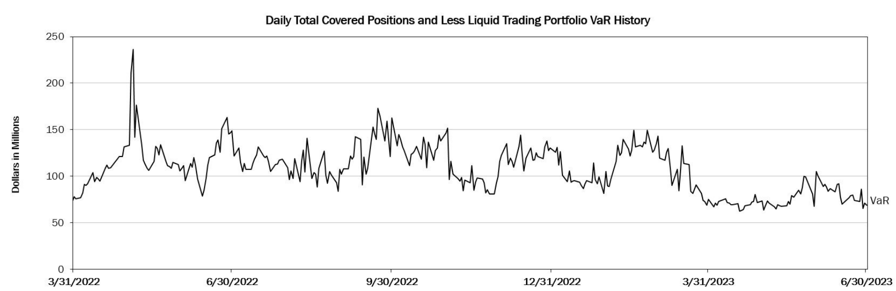
The average of total covered positions and less liquid trading positions portfolio VaR for the three months ended June 30, 2023 compared to the prior quarter decreased primarily due to the roll off of March 2020 market volatility from the window of historical data used in the calibration of the VaR model.

Table 38 Market Risk VaR for Trading Activities

	Three Months Ended												Six Months Ended June 30	
	June 30, 2023				March 31, 2023				June 30, 2022					
(Dollars in millions)	**Period End**	**Average**	**High [1]**	**Low [1]**	Period End	Average	High [1]	Low [1]	Period End	Average	High [1]	Low [1]	**2023 Average**	2022 Average
Foreign exchange	**$ 22**	**$ 29**	**$ 42**	**$ 16**	$ 39	$ 32	$ 42	$ 17	$ 21	$ 17	$ 22	$ 12	**$ 31**	$ 17
Interest rate	**42**	**50**	**74**	**36**	43	43	56	32	36	36	56	24	**47**	36
Credit	**50**	**50**	**54**	**47**	52	84	108	52	71	73	106	53	**67**	68
Equity	**24**	**24**	**56**	**13**	19	19	25	14	21	22	33	19	**21**	23
Commodities	**8**	**9**	**12**	**7**	11	11	14	8	14	17	27	12	**10**	13
Portfolio diversification	**(85)**	**(98)**	n/a	n/a	(103)	(122)	n/a	n/a	(62)	(84)	n/a	n/a	**(110)**	(88)
Total covered positions portfolio	**61**	**64**	**85**	**53**	61	67	92	54	101	81	140	56	**66**	69
Impact from less liquid exposures [2]	**8**	**12**	n/a	n/a	14	42	n/a	n/a	48	37	n/a	n/a	**26**	30
Total covered positions and less liquid trading positions portfolio	**69**	**76**	**105**	**63**	75	109	149	69	149	118	236	76	**92**	99
Fair value option loans	**19**	**20**	**26**	**15**	15	41	49	15	47	53	65	39	**31**	54
Fair value option hedges	**12**	**16**	**20**	**12**	14	16	17	14	14	18	24	14	**16**	18
Fair value option portfolio diversification	**(19)**	**(24)**	n/a	n/a	(19)	(32)	n/a	n/a	(28)	(35)	n/a	n/a	**(29)**	(36)
Total fair value option portfolio	**12**	**12**	**14**	**11**	10	25	30	10	33	36	44	30	**18**	36
Portfolio diversification	**(6)**	**(7)**	n/a	n/a	(7)	(10)	n/a	n/a	(8)	(14)	n/a	n/a	**(8)**	(17)
Total market-based portfolio	**$ 75**	**$ 81**	**113**	**66**	$ 78	$ 124	173	73	$ 174	$ 140	287	91	**$ 102**	$ 118

(1) The high and low for each portfolio may have occurred on different trading days than the high and low for the components. Therefore the impact from less liquid exposures and the amount of portfolio diversification, which is the difference between the total portfolio and the sum of the individual components, is not relevant.
(2) Impact is net of diversification effects between the covered positions and less liquid trading positions portfolios.
n/a = not applicable

The following graph presents the daily covered positions and less liquid trading positions portfolio VaR for the previous five quarters, corresponding to the data in Table 38.



Additional VaR statistics produced within our single VaR model are provided in Table 39 at the same level of detail as in Table 38. Evaluating VaR with additional statistics allows for an increased understanding of the risks in the portfolio, as the historical market data used in the VaR calculation does not necessarily follow a predefined statistical distribution. Table 39 presents average trading VaR statistics at 99 percent and 95 percent confidence levels for the three months ended June 30, 2023, March 31, 2023 and June 30, 2022.

Table 39 Average Market Risk VaR for Trading Activities – 99 percent and 95 percent VaR Statistics

	Three Months Ended					
	June 30, 2023		March 31, 2023		June 30, 2022	
(Dollars in millions)	**99 percent**	**95 percent**	99 percent	95 percent	99 percent	95 percent
Foreign exchange	**$ 29**	**$ 19**	$ 32	$ 20	$ 17	$ 10
Interest rate	**50**	**27**	43	22	36	18
Credit	**50**	**29**	84	31	73	27
Equity	**24**	**12**	19	8	22	12
Commodities	**9**	**5**	11	6	17	9
Portfolio diversification	**(98)**	**(56)**	(122)	(53)	(84)	(46)
Total covered positions portfolio	**64**	**36**	67	34	81	30
Impact from less liquid exposures	**12**	**7**	42	8	37	6
Total covered positions and less liquid trading positions portfolio	**76**	**43**	109	42	118	36
Fair value option loans	**20**	**13**	41	14	53	16
Fair value option hedges	**16**	**10**	16	10	18	11
Fair value option portfolio diversification	**(24)**	**(15)**	(32)	(14)	(35)	(15)
Total fair value option portfolio	**12**	**8**	25	10	36	12
Portfolio diversification	**(7)**	**(6)**	(10)	(7)	(14)	(8)
Total market-based portfolio	**$ 81**	**$ 45**	$ 124	$ 45	$ 140	$ 40

Backtesting

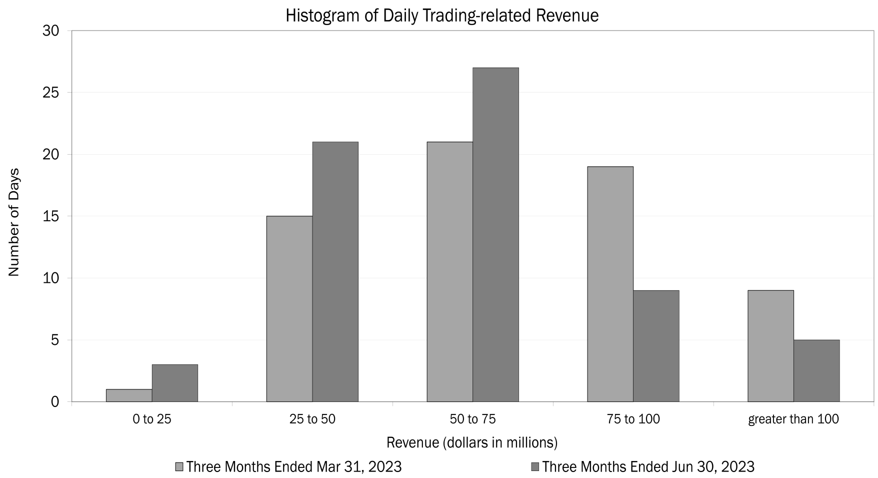
The accuracy of the VaR methodology is evaluated by backtesting, which compares the daily VaR results, utilizing a one-day holding period, against a comparable subset of trading revenue. For more information on our backtesting process, see Trading Risk Management – Backtesting in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

During the three and six months ended June 30, 2023, there were no days where this subset of trading revenue had losses that exceeded our total covered portfolio VaR, utilizing a one-day holding period.

Total Trading-related Revenue

Total trading-related revenue, excluding brokerage fees, and CVA, DVA and funding valuation adjustment gains (losses), represents the total amount earned from trading positions, including market-based net interest income, which are taken in a diverse range of financial instruments and markets. For more information, see Trading Risk Management – Total Trading-related Revenue in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

The following histogram is a graphic depiction of trading volatility and illustrates the daily level of trading-related revenue for the three months ended June 30, 2023 compared to the three months ended March 31, 2023. During the three months ended June 30, 2023, positive trading-related revenue was recorded for 100 percent of the trading days, of which 95 percent were daily trading gains of over $25 million. This compares to the three months ended March 31, 2023 where positive trading-related revenue was recorded for 100 percent of the trading days, of which 98 percent were daily trading gains of over $25 million.



Trading Portfolio Stress Testing

Because the very nature of a VaR model suggests results can exceed our estimates and it is dependent on a limited historical window, we also stress test our portfolio using scenario analysis. This analysis estimates the change in the value of our trading portfolio that may result from abnormal market movements. For more information, see Trading Risk Management – Trading Portfolio Stress Testing in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Interest Rate Risk Management for the Banking Book

The following discussion presents net interest income for banking book activities. For more information, see Interest Rate Risk Management for the Banking Book in the MD&A of the Corporation's 2022 Annual Report on Form 10-K.

Table 40 presents the spot and 12-month forward rates used in our baseline forecasts at June 30, 2023 and December 31, 2022.

Table 40 Forward Rates

	June 30, 2023		
	Federal Funds	**SOFR [1]**	**10-Year SOFR [1]**
Spot rates	**5.25 %**	**5.09 %**	**3.58 %**
12-month forward rates	**5.09**	**4.90**	**3.33**
	December 31, 2022		
	Federal Funds	Three-month LIBOR	10-Year Swap
Spot rates	4.50 %	4.77 %	3.84 %
12-month forward rates	4.75	4.78	3.62

[1] The Corporation uses SOFR in its baseline forecast as one of the primary ARRs used as a result of the cessation of LIBOR in 2023. For more information on the transition from LIBOR to ARRs, see Executive Summary – Recent Developments – LIBOR and Other Benchmark Rates on page 3.

Table 41 shows the pretax impact to forecasted net interest income over the next 12 months from June 30, 2023 and December 31, 2022 resulting from instantaneous parallel and non-parallel shocks to the market-based forward curve. Periodically, we evaluate the scenarios presented so that they are meaningful in the context of the current rate environment.

The interest rate scenarios also assume U.S. dollar interest rates are floored at zero.

During the six months ended June 30, 2023, the overall decrease in asset sensitivity of our balance sheet to higher and lower rate scenarios was primarily due to changes in deposit product mix and risk management activities performed in our ALM portfolio to respond to changing market conditions. We continue to be asset sensitive to a parallel upward move in interest rates with the majority of that impact coming from the short end of the yield curve. Additionally, higher interest rates negatively impact the fair value of our debt securities classified as available for sale and adversely affect accumulated OCI and thus capital levels under the Basel 3 capital rules. Under instantaneous upward parallel shifts, the near-term adverse impact to Basel 3 capital would be reduced over time by offsetting positive impacts to net interest income generated from the banking book activities. For more information on Basel 3, see Capital Management – Regulatory Capital on page 22.

Table 41 Estimated Banking Book Net Interest Income Sensitivity to Curve Changes

(Dollars in millions)	Short Rate (bps)	Long Rate (bps)	**June 30, 2023**	December 31, 2022
Parallel Shifts				
+100 bps instantaneous shift	+100	+100	**$ 3,298**	$ 3,829
-100 bps instantaneous shift	-100	-100	**(3,613)**	(4,591)
Flatteners				
Short-end instantaneous change	+100	—	**3,145**	3,698
Long-end instantaneous change	—	-100	**(171)**	(157)
Steepeners				
Short-end instantaneous change	-100	—	**(3,464)**	(4,420)
Long-end instantaneous change	—	+100	**153**	131

The sensitivity analysis in Table 41 assumes that we take no action in response to these rate shocks and does not assume any change in other macroeconomic variables normally correlated with changes in interest rates. As part of our ALM activities, we use securities, certain residential mortgages, and interest rate and foreign exchange derivatives in managing interest rate sensitivity.

The behavior of our deposit portfolio in the baseline forecast and in alternate interest rate scenarios is a key assumption in our projected estimates of net interest income. The sensitivity analysis in Table 41 assumes no change in deposit portfolio size or mix from the baseline forecast in alternate rate environments. In higher rate scenarios, the increase in net interest income would be impacted by any customer activity resulting in the replacement of low-cost or noninterest-bearing deposits with higher yielding deposits or market-based funding as our benefit in those scenarios would be reduced. Conversely, in lower-rate scenarios, any customer activity that results in the replacement of higher yielding deposits or market-based funding with low-cost or noninterest-bearing deposits would reduce our exposure in those scenarios.

For interest rate scenarios larger than 100 bps shifts, it is expected that the interest rate sensitivity will illustrate non-linear behaviors as there are numerous estimates and assumptions, which require a high degree of judgment and are often interrelated, that could impact the outcome. Pertaining to the mortgage-backed securities and residential mortgage portfolio, if long-end interest rates were to significantly decrease over the next twelve months, for example over 200 bps, there would generally be an increase in customer prepayment behaviors with an incremental reduction to net interest income, noting that the extent of changes in customer prepayment activity can be impacted by multiple factors and is not necessarily limited to long-end interest rates. Conversely, if long-end interest rates were to significantly increase over the next twelve months, for example, over 200 bps, customer prepayments would likely modestly decrease and result in an incremental increase to net interest income. In addition, deposit pricing will have non-linear impacts to larger short-end rate movements. In decreasing interest rate scenarios, and particularly where interest rates have decreased to small amounts, the ability to further reduce rates paid is reduced as customer rates near zero. In higher short-end rate scenarios, deposit pricing will likely increase at a faster rate, leading to incremental interest expense and reducing asset sensitivity. While the impact related to the above assumptions used in the asset sensitivity analysis can provide directional analysis on how net interest income will be impacted in changing environments, the ultimate impact is dependent upon the interrelationship of the assumptions and factors, which vary in different macroeconomic scenarios.

Interest Rate and Foreign Exchange Derivative Contracts

We use interest rate and foreign exchange derivative contracts in our ALM activities to manage our interest rate and foreign exchange risks. Specifically, we use those derivatives to manage both the variability in cash flows and changes in fair value of various assets and liabilities arising from those risks. Our interest rate derivative contracts are generally non-leveraged swaps tied to various benchmark interest rates and foreign exchange basis swaps, options, futures and forwards, and our foreign exchange contracts include cross-currency interest rate swaps, foreign currency futures contracts, foreign currency forward contracts and options.

The derivatives used in our ALM activities can be split into two broad categories: designated accounting hedges and other risk management derivatives. Designated accounting hedges are primarily used to manage our exposure to interest rates as described in the Interest Rate Risk Management for the Banking Book section and are included in the sensitivities presented in Table 41. The Corporation also uses foreign currency derivatives in accounting hedges to manage substantially all of the foreign exchange risk of our foreign operations. By hedging the foreign exchange risk of our foreign operations, the Corporation's market risk exposure in this area is not significant.

Risk management derivatives are predominantly used to hedge foreign exchange risks related to various foreign currency-denominated assets and liabilities and eliminate substantially all foreign currency exposures in the cash flows of the Corporation’s non-trading foreign currency-denominated financial instruments. These foreign exchange derivatives are sensitive to other market risk exposures such as cross-currency basis spreads and interest rate risk. However, as these features are not a significant component of these foreign exchange derivatives, the market risk related to this exposure is not significant. For more information on the accounting for derivatives, see *Note 3 – Derivatives* to the Consolidated Financial Statements.

Mortgage Banking Risk Management

We originate, fund and service mortgage loans, which subject us to credit, liquidity and interest rate risks, among others. We determine whether loans will be held for investment or held for sale at the time of commitment and manage credit and liquidity risks by selling or securitizing a portion of the loans we originate.

Changes in interest rates impact the value of interest rate lock commitments (IRLCs) and the related residential first mortgage loans held-for-sale (LHFS), as well as the value of the MSRs. Because the interest rate risks of these hedged items offset, we combine them into one overall hedged item with one combined economic hedge portfolio consisting of derivative contracts and securities. For more information on IRLCs and the related residential mortgage LHFS, see Mortgage Banking Risk Management in the MD&A of the Corporation’s 2022 Annual Report on Form 10-K.

There were no significant gains or losses related to the change in fair value of MSRs, IRLCs and LHFS, net of gains and losses on the hedge portfolio, for the three and six months ended June 30, 2023 and 2022. For more information on MSRs, see *Note 14 – Fair Value Measurements* to the Consolidated Financial Statements.

Climate Risk Management

Climate-related risks are divided into two major categories: (1) risks related to the physical impacts of climate change, driven by extreme weather events such as hurricanes and floods, as well as chronic longer-term shifts such as rising average global temperatures and sea levels, and (2) risks related to the transition to a low-carbon economy, which may entail extensive policy, legal, technology and market changes. These changes and events may have broad impacts on operations, supply chains, distribution networks, customers and markets and are otherwise referred to, respectively, as physical risk and transition risk. These risks may impact both financial and nonfinancial risk types. Physical climate events may lead to increased credit risk by diminishing borrowers’ repayment capacity or collateral value, or increased operational risk by impacting the Corporation’s facilities, employees, customers or vendors. Climate-related transition changes in policy, technology or the market may amplify credit risk through financial impacts to the Corporation or its customers or counterparties or increase market risk, including through sudden price adjustments. In addition, reputational risk may arise, including from our climate-related practices, disclosures and commitments.

As climate risk spans all key risk types, we have developed and continue to enhance processes to embed climate risk considerations into our Risk Framework and risk management programs established for each of our seven key types of risk.

We publicly announced our commitment to achieve net zero emissions in our financing activities, operations, and supply chain before 2050 (Net Zero Goal). In connection with our Net Zero Goal, we set certain 2030 targets, including reducing emissions associated with our operations and financing activities, related to auto manufacturing, energy and power generation, and for our supply chain, including that a certain proportion of our global suppliers set their own climate targets (2030 Targets). We disclosed our 2019 and 2020 financed emission and emission intensity metrics for the above referenced sectors in our 2022 Task Force on Climate-related Financial Disclosures (TCFD) Report, with 2019 serving as the baseline for our financed emissions targets.

We plan to disclose the financed emissions for additional portions of our business loan portfolio in 2023, and we plan to set financing activity emission reduction targets for other key sectors by April 2024.

Achieving our climate-related goals and targets, including our Net Zero Goal and 2030 Targets, may require technological advances, clearly defined roadmaps for industry sectors, new standards and public policies, including those that improve the cost of capital for the transition to a low-carbon economy and better emissions data reporting, as well as ongoing, strong and active engagement with customers, suppliers, investors, government officials and other stakeholders.

Given the extended period of these and other climate-related goals we have established, our initiatives have not resulted in a significant effect on our results of operations or financial position in the relevant periods presented herein.

For more information on our governance framework and climate risk management process, see the Managing Risk and Climate Risk Management sections in the MD&A of the Corporation's 2022 Annual Report on Form 10-K. For more information on climate risk, see Item 1A. Risk Factors – Other of the Corporation's 2022 Annual Report on Form 10-K. For more information on climate-related matters and the Corporation's climate-related goals and commitments, including our plans to achieve our Net Zero Goal and 2030 Targets and progress on our sustainable finance goals, see the Corporation's website, including our 2022 TCFD Report and the 2022 Annual Report to shareholders available on the Investor Relations portion of our website. The contents of the Corporation's website, including the 2022 TCFD Report and 2022 Annual Report to shareholders are not incorporated by reference into this Quarterly Report on Form 10-Q.

The foregoing discussion and our discussion in the 2022 TCFD Report and Annual Report to shareholders regarding our goals and commitments with respect to climate risk management, including environmental transition considerations, include "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are not guarantees of future results or performance and involve certain known and unknown risks, uncertainties and assumptions that are difficult to predict and are often beyond the Corporation's control. Actual outcomes and results may differ materially from those expressed in, or implied by, any of these forward-looking statements.

Complex Accounting Estimates

Our significant accounting principles, are essential in understanding the MD&A. Many of our significant accounting principles require complex judgments to estimate the values of assets and liabilities. We have procedures and processes in place to facilitate making these judgments. For more information, see Complex Accounting Estimates in the MD&A of the Corporation's 2022 Annual Report on Form 10-K and *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Goodwill and Intangible Assets

The nature of and accounting for goodwill and intangible assets are discussed in *Note 1 – Summary of Significant Accounting Principles* and *Note 7 – Goodwill and Intangible Assets* to the Consolidated Financial Statements. As of June 30, 2023, goodwill recorded on our consolidated balance sheet was as follows.

Table 42 Goodwill by Reporting Unit

(Dollars in millions)	June 30 2023	December 31 2022
Consumer Banking		
Consumer Lending	**$ 11,723**	$ 11,723
Deposits	**18,414**	18,414
Global Wealth and Investment Management		
Private Bank	**2,918**	2,918
Merrill Lynch Global Wealth Management	**6,759**	6,759
Global Banking		
Global Commercial Banking	**16,204**	16,204
Global Corporate and Investment Banking	**6,276**	6,276
Business Banking	**1,546**	1,546
Global Markets	**5,181**	5,182
Total	**$ 69,021**	$ 69,022

Goodwill is tested for impairment at the reporting unit level on an annual basis and on an interim basis if an event occurs or circumstances change that would reduce the fair value of a reporting unit below its carrying value. We completed our annual goodwill impairment test as of June 30, 2023. In performing that test, we compared the fair value of each reporting unit to its carrying value as measured by allocated equity. We estimated the fair value of each reporting unit based on the income approach (which utilizes the present value of cash flows to estimate fair value) and the market multiplier approach (which utilizes observable market prices and metrics of peer companies to estimate fair value).

Our discounted cash flows were generally based on the Corporation's three-year internal forecasts along with long-term terminal growth values. Our estimated cash flows take into account the current global industry and market conditions related to the inflationary and interest rate environment. The cash flows were discounted using rates that range from 9.75 percent to 11.25 percent, which were derived from a capital asset pricing model that incorporates the risk and uncertainty in the cash flow forecasts, the financial markets and industries similar to each of the reporting units.

Under the market multiplier approach, we estimated the fair value of the individual reporting units utilizing various market multiples, primarily various pricing multiples, from comparable publicly-traded companies in industries similar to the reporting unit and then factored in a control premium based upon observed comparable premiums paid for change-in-control transactions for financial institutions.

Based on the results of the test, we determined that each reporting unit's estimated fair value exceeded its respective carrying value and that the goodwill assigned to each reporting unit, as of June 30, 2023, was not impaired. The fair values of the reporting units as a percentage of their carrying values ranged from 120 percent to 266 percent.

Non-GAAP Reconciliations

Table 43 provides reconciliations of certain non-GAAP financial measures to the most closely related GAAP financial measures.

Table 43 Average and Period-end Supplemental Financial Data and Reconciliations to GAAP Financial Measures [1]

(Dollars in millions)	**2023 Quarters**		2022 Quarters			**Six Months Ended June 30**	
	Second	First	Fourth	Third	Second	**2023**	2022
Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity							
Shareholders' equity	**$ 282,425**	$ 277,252	$ 272,629	$ 271,017	$ 268,197	**$ 279,853**	$ 268,750
Goodwill	**(69,022)**	(69,022)	(69,022)	(69,022)	(69,022)	**(69,022)**	(69,022)
Intangible assets (excluding MSRs)	**(2,049)**	(2,068)	(2,088)	(2,107)	(2,127)	**(2,058)**	(2,136)
Related deferred tax liabilities	**895**	899	914	920	926	**897**	927
Tangible shareholders' equity	**$ 212,249**	$ 207,061	$ 202,433	$ 200,808	$ 197,974	**$ 209,670**	$ 198,519
Preferred stock	**(28,397)**	(28,397)	(28,982)	(29,134)	(28,674)	**(28,397)**	(27,565)
Tangible common shareholders' equity	**$ 183,852**	$ 178,664	$ 173,451	$ 171,674	$ 169,300	**$ 181,273**	$ 170,954
Reconciliation of period-end shareholders' equity to period-end tangible shareholders' equity and period-end tangible common shareholders' equity							
Shareholders' equity	**$ 283,319**	$ 280,196	$ 273,197	$ 269,524	$ 269,118		
Goodwill	**(69,021)**	(69,022)	(69,022)	(69,022)	(69,022)		
Intangible assets (excluding MSRs)	**(2,036)**	(2,055)	(2,075)	(2,094)	(2,114)		
Related deferred tax liabilities	**890**	895	899	915	920		
Tangible shareholders' equity	**$ 213,152**	$ 210,014	$ 202,999	$ 199,323	$ 198,902		
Preferred stock	**(28,397)**	(28,397)	(28,397)	(29,134)	(29,134)		
Tangible common shareholders' equity	**$ 184,755**	$ 181,617	$ 174,602	$ 170,189	$ 169,768		
Reconciliation of period-end assets to period-end tangible assets							
Assets	**$ 3,123,198**	$ 3,194,657	$ 3,051,375	$ 3,072,953	$ 3,111,606		
Goodwill	**(69,021)**	(69,022)	(69,022)	(69,022)	(69,022)		
Intangible assets (excluding MSRs)	**(2,036)**	(2,055)	(2,075)	(2,094)	(2,114)		
Related deferred tax liabilities	**890**	895	899	915	920		
Tangible assets	**$ 3,053,031**	$ 3,124,475	$ 2,981,177	$ 3,002,752	$ 3,041,390		

(1) For more information on non-GAAP financial measures and ratios we use in assessing the results of the Corporation, see Supplemental Financial Data on page 7.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

See Market Risk Management on page 43 in the MD&A and the sections referenced therein for Quantitative and Qualitative Disclosures about Market Risk.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

As of the end of the period covered by this report, the Corporation's management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness and design of the Corporation's disclosure controls and procedures (as that term is defined in Rule 13a-15(e) of the Exchange Act). Based upon that evaluation, the Corporation's Chief Executive Officer and Chief Financial Officer concluded that the Corporation's disclosure controls and procedures were effective, as of the end of the period covered by this report.

Changes in Internal Control Over Financial Reporting

There have been no changes in the Corporation's internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) during the three months ended June 30, 2023, that have materially affected, or are reasonably likely to materially affect, the Corporation's internal control over financial reporting.

Consolidated Statement of Income

(In millions, except per share information)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Net interest income				
Interest income	$ 32,354	$ 14,975	$ 61,009	$ 27,869
Interest expense	18,196	2,531	32,403	3,853
Net interest income	14,158	12,444	28,606	24,016
Noninterest income				
Fees and commissions	7,961	8,491	15,855	17,476
Market making and similar activities	3,697	2,717	8,409	5,955
Other income	(619)	(964)	(1,415)	(1,531)
Total noninterest income	11,039	10,244	22,849	21,900
Total revenue, net of interest expense	25,197	22,688	51,455	45,916
Provision for credit losses	1,125	523	2,056	553
Noninterest expense				
Compensation and benefits	9,401	8,917	19,319	18,399
Occupancy and equipment	1,776	1,748	3,575	3,508
Information processing and communications	1,644	1,535	3,341	3,075
Product delivery and transaction related	956	924	1,846	1,857
Professional fees	527	518	1,064	968
Marketing	513	463	971	860
Other general operating	1,221	1,168	2,160	1,925
Total noninterest expense	16,038	15,273	32,276	30,592
Income before income taxes	8,034	6,892	17,123	14,771
Income tax expense	626	645	1,554	1,457
Net income	$ 7,408	$ 6,247	$ 15,569	$ 13,314
Preferred stock dividends	306	315	811	782
Net income applicable to common shareholders	$ 7,102	$ 5,932	$ 14,758	$ 12,532
Per common share information				
Earnings	$ 0.88	$ 0.73	$ 1.83	$ 1.54
Diluted earnings	0.88	0.73	1.82	1.53
Average common shares issued and outstanding	8,040.9	8,121.6	8,053.5	8,129.3
Average diluted common shares issued and outstanding	8,080.7	8,163.1	8,162.6	8,182.2

Consolidated Statement of Comprehensive Income

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Net income	$ 7,408	$ 6,247	$ 15,569	$ 13,314
Other comprehensive income (loss), net-of-tax:				
Net change in debt securities	168	(1,822)	723	(5,269)
Net change in debit valuation adjustments	(404)	575	(394)	836
Net change in derivatives	(1,993)	(2,008)	49	(7,187)
Employee benefit plan adjustments	9	36	19	60
Net change in foreign currency translation adjustments	5	(38)	17	(10)
Other comprehensive income (loss)	(2,215)	(3,257)	414	(11,570)
Comprehensive income (loss)	$ 5,193	$ 2,990	$ 15,983	$ 1,744

See accompanying Notes to Consolidated Financial Statements.

Consolidated Balance Sheet

(Dollars in millions)	June 30 2023	December 31 2022
Assets		
Cash and due from banks	**$ 29,651**	$ 30,334
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	**343,902**	199,869
Cash and cash equivalents	**373,553**	230,203
Time deposits placed and other short-term investments	**7,941**	7,259
Federal funds sold and securities borrowed or purchased under agreements to resell (includes **$152,081** and $146,999 measured at fair value)	**276,281**	267,574
Trading account assets (includes **$152,849** and $115,505 pledged as collateral)	**311,400**	296,108
Derivative assets	**46,475**	48,642
Debt securities:		
Carried at fair value	**142,040**	229,994
Held-to-maturity, at cost (fair value **$508,351** and $524,267)	**614,118**	632,825
Total debt securities	**756,158**	862,819
Loans and leases (includes **$4,327** and $5,771 measured at fair value)	**1,051,224**	1,045,747
Allowance for loan and lease losses	**(12,950)**	(12,682)
Loans and leases, net of allowance	**1,038,274**	1,033,065
Premises and equipment, net	**11,688**	11,510
Goodwill	**69,021**	69,022
Loans held-for-sale (includes **$2,063** and $1,115 measured at fair value)	**6,788**	6,871
Customer and other receivables	**74,000**	67,543
Other assets (includes **$10,028** and $9,594 measured at fair value)	**151,619**	150,759
Total assets	**$ 3,123,198**	$ 3,051,375
Liabilities		
Deposits in U.S. offices:		
Noninterest-bearing	**$ 571,621**	$ 640,745
Interest-bearing (includes **$379** and $311 measured at fair value)	**1,197,396**	1,182,590
Deposits in non-U.S. offices:		
Noninterest-bearing	**16,662**	20,480
Interest-bearing	**91,530**	86,526
Total deposits	**1,877,209**	1,930,341
Federal funds purchased and securities loaned or sold under agreements to repurchase (includes **$214,991** and $151,708 measured at fair value)	**288,627**	195,635
Trading account liabilities	**97,818**	80,399
Derivative liabilities	**43,399**	44,816
Short-term borrowings (includes **$2,239** and $832 measured at fair value)	**41,017**	26,932
Accrued expenses and other liabilities (includes **$11,587** and $9,752 measured at fair value and **$1,388** and $1,540 of reserve for unfunded lending commitments)	**205,736**	224,073
Long-term debt (includes **$40,622** and $33,070 measured at fair value)	**286,073**	275,982
Total liabilities	**2,839,879**	2,778,178
Commitments and contingencies *(Note 6 – Securitizations and Other Variable Interest Entities)* and *(Note 10 – Commitments and Contingencies)*		
Shareholders' equity		
Preferred stock, $0.01 par value; authorized – **100,000,000** shares; issued and outstanding – **4,088,099** and 4,088,101 shares	**28,397**	28,397
Common stock and additional paid-in capital, **$0.01** par value; authorized – **12,800,000,000** shares; issued and outstanding – **7,953,563,116** and 7,996,777,943 shares	**57,267**	58,953
Retained earnings	**218,397**	207,003
Accumulated other comprehensive income (loss)	**(20,742)**	(21,156)
Total shareholders' equity	**283,319**	273,197
Total liabilities and shareholders' equity	**$ 3,123,198**	$ 3,051,375
Assets of consolidated variable interest entities included in total assets above (isolated to settle the liabilities of the variable interest entities)		
Trading account assets	**$ 4,610**	$ 2,816
Loans and leases	**15,884**	16,738
Allowance for loan and lease losses	**(796)**	(797)
Loans and leases, net of allowance	**15,088**	15,941
All other assets	**126**	116
Total assets of consolidated variable interest entities	**$ 19,824**	$ 18,873
Liabilities of consolidated variable interest entities included in total liabilities above		
Short-term borrowings (includes **$23** and $42 of non-recourse short-term borrowings)	**$ 1,877**	$ 42
Long-term debt (includes **$5,701** and $4,581 of non-recourse debt)	**5,701**	4,581
All other liabilities (includes **$10** and $13 of non-recourse liabilities)	**10**	12
Total liabilities of consolidated variable interest entities	**$ 7,588**	$ 4,635

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statement of Changes in Shareholders' Equity

(In millions)	Preferred Stock	Common Stock and Additional Paid-in Capital Shares	Common Stock and Additional Paid-in Capital Amount	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
Balance, March 31, 2023	$ 28,397	7,972.4	$ 57,264	$ 213,062	$ (18,527)	$ 280,196
Net income				7,408		7,408
Net change in debt securities					168	168
Net change in debit valuation adjustments					(404)	(404)
Net change in derivatives					(1,993)	(1,993)
Employee benefit plan adjustments					9	9
Net change in foreign currency translation adjustments					5	5
Dividends declared:						
Common				(1,767)		(1,767)
Preferred				(306)		(306)
Common stock issued under employee plans, net, and other		0.4	553			553
Common stock repurchased		(19.2)	(550)			(550)
Balance, June 30, 2023	$ 28,397	7,953.6	$ 57,267	$ 218,397	$ (20,742)	$ 283,319
Balance, December 31, 2022	$ 28,397	7,996.8	$ 58,953	$ 207,003	$ (21,156)	$ 273,197
Cumulative adjustment for adoption of credit loss accounting standard				184		184
Net income				15,569		15,569
Net change in debt securities					723	723
Net change in debit valuation adjustments					(394)	(394)
Net change in derivatives					49	49
Employee benefit plan adjustments					19	19
Net change in foreign currency translation adjustments					17	17
Dividends declared:						
Common				(3,541)		(3,541)
Preferred				(811)		(811)
Common stock issued under employee plans, net, and other		42.8	1,079	(7)		1,072
Common stock repurchased		(86.0)	(2,765)			(2,765)
Balance, June 30, 2023	$ 28,397	7,953.6	$ 57,267	$ 218,397	$ (20,742)	$ 283,319
Balance, March 31, 2022	$ 27,137	8,062.1	$ 59,968	$ 192,929	$ (13,417)	$ 266,617
Net income				6,247		6,247
Net change in debt securities					(1,822)	(1,822)
Net change in debit valuation adjustments					575	575
Net change in derivatives					(2,008)	(2,008)
Employee benefit plan adjustments					36	36
Net change in foreign currency translation adjustments					(38)	(38)
Dividends declared:						
Common				(1,702)		(1,702)
Preferred				(315)		(315)
Issuance of preferred stock	1,997					1,997
Common stock issued under employee plans, net, and other		0.3	506			506
Common stock repurchased		(27.2)	(975)			(975)
Balance, June 30, 2022	$ 29,134	8,035.2	$ 59,499	$ 197,159	$ (16,674)	$ 269,118
Balance, December 31, 2021	$ 24,708	8,077.8	$ 62,398	$ 188,064	$ (5,104)	$ 270,066
Net income				13,314		13,314
Net change in debt securities					(5,269)	(5,269)
Net change in debit valuation adjustments					836	836
Net change in derivatives					(7,187)	(7,187)
Employee benefit plan adjustments					60	60
Net change in foreign currency translation adjustments					(10)	(10)
Dividends declared:						
Common				(3,408)		(3,408)
Preferred				(782)		(782)
Issuance of preferred stock	4,426					4,426
Common stock issued under employee plans, net, and other		42.1	726	(29)		697
Common stock repurchased		(84.7)	(3,625)			(3,625)
Balance, June 30, 2022	$ 29,134	$ 8,035.2	$ 59,499	$ 197,159	$ (16,674)	$ 269,118

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statement of Cash Flows

(Dollars in millions)	Six Months Ended June 30 2023	2022
Operating activities		
Net income	$ 15,569	$ 13,314
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	2,056	553
(Gains) losses on sales of debt securities	404	(22)
Depreciation and amortization	1,013	985
Net amortization of premium/discount on debt securities	64	1,489
Deferred income taxes	(612)	86
Stock-based compensation	1,626	1,531
Loans held-for-sale:		
Originations and purchases	(7,345)	(11,360)
Proceeds from sales and paydowns of loans originally classified as held for sale and instruments from related securitization activities	7,349	21,085
Net change in:		
Trading and derivative assets/liabilities	1,289	(91,263)
Other assets	(6,618)	(597)
Accrued expenses and other liabilities	(18,449)	14,250
Other operating activities, net	4,140	(530)
Net cash provided by (used in) operating activities	486	(50,479)
Investing activities		
Net change in:		
Time deposits placed and other short-term investments	(722)	303
Federal funds sold and securities borrowed or purchased under agreements to resell	(8,707)	(21,710)
Debt securities carried at fair value:		
Proceeds from sales	93,947	32,405
Proceeds from paydowns and maturities	35,177	67,709
Purchases	(39,260)	(92,288)
Held-to-maturity debt securities:		
Proceeds from paydowns and maturities	18,078	39,252
Purchases	(77)	(23,995)
Loans and leases:		
Proceeds from sales of loans originally classified as held for investment and instruments from related securitization activities	5,129	11,921
Purchases	(2,590)	(3,378)
Other changes in loans and leases, net	(9,731)	(59,757)
Other investing activities, net	(2,514)	(2,132)
Net cash provided by (used in) investing activities	88,730	(51,670)
Financing activities		
Net change in:		
Deposits	(53,132)	(80,182)
Federal funds purchased and securities loaned or sold under agreements to repurchase	92,992	11,978
Short-term borrowings	14,085	4,133
Long-term debt:		
Proceeds from issuance	30,709	40,681
Retirement	(22,268)	(16,347)
Preferred stock:		
Proceeds from issuance	—	4,426
Common stock repurchased	(2,765)	(3,625)
Cash dividends paid	(4,443)	(4,217)
Other financing activities, net	(752)	(612)
Net cash provided by (used in) financing activities	54,426	(43,765)
Effect of exchange rate changes on cash and cash equivalents	(292)	(4,305)
Net increase (decrease) in cash and cash equivalents	143,350	(150,219)
Cash and cash equivalents at January 1	230,203	348,221
Cash and cash equivalents at June 30	$ 373,553	$ 198,002

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries
Notes to Consolidated Financial Statements

NOTE 1 Summary of Significant Accounting Principles

Bank of America Corporation, a bank holding company and a financial holding company, provides a diverse range of financial services and products throughout the U.S. and in certain international markets. The term "the Corporation" as used herein may refer to Bank of America Corporation, individually, Bank of America Corporation and its subsidiaries, or certain of Bank of America Corporation's subsidiaries or affiliates.

Principles of Consolidation and Basis of Presentation

The Consolidated Financial Statements include the accounts of the Corporation and its majority-owned subsidiaries and those variable interest entities (VIEs) where the Corporation is the primary beneficiary. Intercompany accounts and transactions have been eliminated. Results of operations of acquired companies are included from the dates of acquisition, and for VIEs, from the dates that the Corporation became the primary beneficiary. Assets held in an agency or fiduciary capacity are not included in the Consolidated Financial Statements. The Corporation accounts for investments in companies for which it owns a voting interest and for which it has the ability to exercise significant influence over operating and financing decisions using the equity method of accounting. These investments, which include the Corporation's interests in affordable housing and renewable energy partnerships, are recorded in other assets. Equity method investments are subject to impairment testing, and the Corporation's proportionate share of income or loss is included in other income.

The preparation of the Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect reported amounts and disclosures. Actual results could materially differ from those estimates and assumptions.

These unaudited Consolidated Financial Statements should be read in conjunction with the audited Consolidated Financial Statements, and related notes thereto, of the Corporation's 2022 Annual Report on Form 10-K.

The nature of the Corporation's business is such that the results of any interim period are not necessarily indicative of results for a full year. In the opinion of management, all adjustments, which consist of normal recurring adjustments necessary for a fair statement of the interim period results, have been made. The Corporation evaluates subsequent events through the date of filing with the Securities and Exchange Commission (SEC). Certain prior-period amounts have been reclassified to conform to current-period presentation.

New Accounting Standard Issued

Investments – Equity Method and Joint Ventures

The FASB updated its guidance on the accounting for tax credit investments, which permits entities to make an accounting policy election to apply the proportional amortization method when certain conditions are met. The new accounting guidance is effective on a retrospective or modified retrospective basis beginning on January 1, 2024, with early adoption permitted. If adopted, the Corporation does not expect the guidance to have a material impact on its consolidated financial position or results of operations.

New Accounting Standard Adopted

Financial Instruments – Credit Losses

On January 1, 2023, the Corporation adopted the new accounting and disclosure requirements for expected credit losses (ECL) that removed the recognition and measurement guidance on troubled debt restructurings (TDRs) and added disclosures on the financial effect and subsequent performance of certain types of modifications made to borrowers experiencing financial difficulties.

Upon adoption of the standard, the Corporation recorded a reduction of $243 million in the allowance for credit losses for the impact of changes in the methodology used to estimate the allowance for credit losses for non-collateral dependent consumer and commercial TDRs. There was no impact to the valuation of loans previously classified as collateral-dependent TDRs. After adjusting for deferred taxes, the Corporation recorded an increase of $184 million in retained earnings through a cumulative-effect adjustment.

The additional disclosures are included in *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses* on a prospective basis and include loan modifications where the contractual payment terms of the borrower's loan agreement were modified through a refinancing or restructuring. Modifications that do not impact the contractual payment terms, such as covenant waivers, insignificant payment deferrals, and any modifications made to loans carried at fair value, loans held-for-sale (LHFS) and leases are not included in the disclosures.

The Corporation uses various indicators to identify borrowers in financial difficulty. Consumer loan borrowers that are delinquent and commercial loan borrowers that are rated substandard or worse are the primary criteria used to identify borrowers who are experiencing financial difficulty.

If a borrower is current at the time of modification, the loan generally remains a performing loan as long as there is demonstrated performance prior to the modification, and payment in full under the modified terms is expected. Otherwise, the loan is placed on nonaccrual status and reported as nonperforming, excluding fully-insured consumer real estate loans, until there is sustained repayment performance for a reasonable period.

The allowance for loan and lease losses for modified loans is determined in a manner consistent with the methodology for the respective class and credit rating of the financing receivable as described in *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

NOTE 2 Net Interest Income and Noninterest Income

The table below presents the Corporation's net interest income and noninterest income disaggregated by revenue source for the three and six months ended June 30, 2023 and 2022. For more information, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K. For a disaggregation of noninterest income by business segment and *All Other*, see *Note 17 – Business Segment Information.*

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Net interest income				
Interest income				
Loans and leases	**$ 13,970**	$ 8,222	**$ 27,067**	$ 15,574
Debt securities	**4,691**	4,049	**10,151**	7,872
Federal funds sold and securities borrowed or purchased under agreements to resell	**4,955**	396	**8,667**	389
Trading account assets	**2,076**	1,223	**4,104**	2,304
Other interest income	**6,662**	1,085	**11,020**	1,730
Total interest income	**32,354**	14,975	**61,009**	27,869
Interest expense				
Deposits	**5,785**	320	**10,099**	484
Short-term borrowings	**8,355**	553	**14,535**	441
Trading account liabilities	**472**	370	**976**	734
Long-term debt	**3,584**	1,288	**6,793**	2,194
Total interest expense	**18,196**	2,531	**32,403**	3,853
Net interest income	**$ 14,158**	$ 12,444	**$ 28,606**	$ 24,016
Noninterest income				
Fees and commissions				
Card income				
Interchange fees [1]	**$ 1,023**	$ 1,072	**$ 1,979**	$ 2,007
Other card income	**523**	483	**1,036**	951
Total card income	**1,546**	1,555	**3,015**	2,958
Service charges				
Deposit-related fees	**1,045**	1,417	**2,142**	2,947
Lending-related fees	**319**	300	**632**	603
Total service charges	**1,364**	1,717	**2,774**	3,550
Investment and brokerage services				
Asset management fees	**2,969**	3,102	**5,887**	6,388
Brokerage fees	**870**	989	**1,804**	1,995
Total investment and brokerage services	**3,839**	4,091	**7,691**	8,383
Investment banking fees				
Underwriting income	**657**	435	**1,226**	1,107
Syndication fees	**180**	301	**411**	613
Financial advisory services	**375**	392	**738**	865
Total investment banking fees	**1,212**	1,128	**2,375**	2,585
Total fees and commissions	**7,961**	8,491	**15,855**	17,476
Market making and similar activities	**3,697**	2,717	**8,409**	5,955
Other income (loss)	**(619)**	(964)	**(1,415)**	(1,531)
Total noninterest income	**$ 11,039**	$ 10,244	**$ 22,849**	$ 21,900

(1) Gross interchange fees and merchant income are $3.4 billion and $3.3 billion for the three months ended June 30, 2023 and 2022 and are presented net of $2.4 billion and $2.2 billion of expenses for rewards and partner payments as well as certain other card costs for the same periods. Gross interchange fees and merchant income were $6.6 billion and $6.2 billion for the six months ended June 30, 2023 and 2022 and are presented net of $4.6 billion and $4.2 billion of expenses for rewards and partner payments as well as certain other card costs for the same periods.

NOTE 3 Derivatives

Derivative Balances

Derivatives are entered into on behalf of customers, for trading or to support risk management activities. Derivatives used in risk management activities include derivatives that may or may not be designated in qualifying hedge accounting relationships. Derivatives that are not designated in qualifying hedge accounting relationships are referred to as other risk management derivatives. For more information on the Corporation's derivatives and hedging activities, see *Note 1 – Summary of Significant Accounting Principles* and *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K. The following tables present derivative instruments included on the Consolidated Balance Sheet in derivative assets and liabilities at June 30, 2023 and December 31, 2022. Balances are presented on a gross basis, prior to the application of counterparty and cash collateral netting. Total derivative assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements and have been reduced by cash collateral received or paid.

	June 30, 2023						
		Gross Derivative Assets			Gross Derivative Liabilities		
(Dollars in billions)	Contract/ Notional [1]	Trading and Other Risk Management Derivatives	Qualifying Accounting Hedges	Total	Trading and Other Risk Management Derivatives	Qualifying Accounting Hedges	Total
Interest rate contracts							
Swaps	$ 22,965.7	$ 150.2	$ 7.2	$ 157.4	$ 126.8	$ 29.1	$ 155.9
Futures and forwards	4,404.2	5.9	—	5.9	5.5	—	5.5
Written options [2]	1,844.6	—	—	—	36.8	—	36.8
Purchased options [3]	1,751.5	38.0	—	38.0	—	—	—
Foreign exchange contracts							
Swaps	1,757.2	40.4	1.2	41.6	36.9	1.1	38.0
Spot, futures and forwards	4,800.6	50.2	0.1	50.3	49.4	0.4	49.8
Written options [2]	457.6	—	—	—	7.8	—	7.8
Purchased options [3]	410.9	7.7	—	7.7	—	—	—
Equity contracts							
Swaps	419.4	12.1	—	12.1	14.6	—	14.6
Futures and forwards	155.8	2.4	—	2.4	1.4	—	1.4
Written options [2]	1,000.3	—	—	—	52.7	—	52.7
Purchased options [3]	846.2	44.4	—	44.4	—	—	—
Commodity contracts							
Swaps	69.2	3.8	—	3.8	5.3	—	5.3
Futures and forwards	176.5	3.5	—	3.5	1.9	0.8	2.7
Written options [2]	66.2	—	—	—	3.2	—	3.2
Purchased options [3]	78.5	2.9	—	2.9	—	—	—
Credit derivatives [4]							
Purchased credit derivatives:							
Credit default swaps	427.4	2.6	—	2.6	2.0	—	2.0
Total return swaps/options	82.3	0.7	—	0.7	3.2	—	3.2
Written credit derivatives:							
Credit default swaps	394.2	1.5	—	1.5	2.2	—	2.2
Total return swaps/options	83.5	3.8	—	3.8	0.4	—	0.4
Gross derivative assets/liabilities		$ 370.1	$ 8.5	$ 378.6	$ 350.1	$ 31.4	$ 381.5
Less: Legally enforceable master netting agreements				(301.2)			(301.2)
Less: Cash collateral received/paid				(30.9)			(36.9)
Total derivative assets/liabilities				$ 46.5			$ 43.4

(1) Represents the total contract/notional amount of derivative assets and liabilities outstanding.
(2) Includes certain out-of-the-money purchased options that have a liability amount primarily due to the deferral of option premiums to the end of the contract.
(3) Includes certain out-of-the-money written options that have an asset amount primarily due to the deferral of option premiums to the end of the contract.
(4) The net derivative asset (liability) and notional amount of written credit derivatives for which the Corporation held purchased credit derivatives with identical underlying referenced names were $(660) million and $371.6 billion at June 30, 2023.

(Dollars in billions)	Contract/ Notional (1)	December 31, 2022 Gross Derivative Assets: Trading and Other Risk Management Derivatives	Gross Derivative Assets: Qualifying Accounting Hedges	Gross Derivative Assets: Total	Gross Derivative Liabilities: Trading and Other Risk Management Derivatives	Gross Derivative Liabilities: Qualifying Accounting Hedges	Gross Derivative Liabilities: Total
Interest rate contracts							
Swaps	$ 18,285.9	$ 138.2	$ 20.7	$ 158.9	$ 120.3	$ 36.7	$ 157.0
Futures and forwards	2,796.3	8.6	—	8.6	7.8	—	7.8
Written options (2)	1,657.9	—	—	—	41.4	—	41.4
Purchased options (3)	1,594.7	42.4	—	42.4	—	—	—
Foreign exchange contracts							
Swaps	1,509.0	44.0	0.3	44.3	43.3	0.4	43.7
Spot, futures and forwards	4,159.3	59.9	0.1	60.0	62.1	0.6	62.7
Written options (2)	392.2	—	—	—	8.1	—	8.1
Purchased options (3)	362.6	8.3	—	8.3	—	—	—
Equity contracts							
Swaps	394.0	10.8	—	10.8	12.2	—	12.2
Futures and forwards	114.6	3.3	—	3.3	1.0	—	1.0
Written options (2)	746.8	—	—	—	45.0	—	45.0
Purchased options (3)	671.6	40.9	—	40.9	—	—	—
Commodity contracts							
Swaps	56.0	5.1	—	5.1	5.3	—	5.3
Futures and forwards	157.3	3.0	—	3.0	2.3	0.8	3.1
Written options (2)	59.5	—	—	—	3.3	—	3.3
Purchased options (3)	61.8	3.6	—	3.6	—	—	—
Credit derivatives (4)							
Purchased credit derivatives:							
Credit default swaps	319.9	2.8	—	2.8	1.6	—	1.6
Total return swaps/options	71.5	0.7	—	0.7	3.0	—	3.0
Written credit derivatives:							
Credit default swaps	295.2	1.2	—	1.2	2.4	—	2.4
Total return swaps/options	85.3	4.4	—	4.4	0.9	—	0.9
Gross derivative assets/liabilities		$ 377.2	$ 21.1	$ 398.3	$ 360.0	$ 38.5	$ 398.5
Less: Legally enforceable master netting agreements				(315.9)			(315.9)
Less: Cash collateral received/paid				(33.8)			(37.8)
Total derivative assets/liabilities				$ 48.6			$ 44.8

(1) Represents the total contract/notional amount of derivative assets and liabilities outstanding.
(2) Includes certain out-of-the-money purchased options that have a liability amount primarily due to the deferral of option premiums to the end of the contract.
(3) Includes certain out-of-the-money written options that have an asset amount primarily due to the deferral of option premiums to the end of the contract.
(4) The net derivative asset (liability) and notional amount of written credit derivatives for which the Corporation held purchased credit derivatives with identical underlying referenced names were $(1.2) billion and $276.9 billion at December 31, 2022.

Offsetting of Derivatives

The Corporation enters into International Swaps and Derivatives Association, Inc. (ISDA) master netting agreements or similar agreements with substantially all of the Corporation's derivative counterparties. For more information, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

The following table presents derivative instruments included in derivative assets and liabilities on the Consolidated Balance Sheet at June 30, 2023 and December 31, 2022 by primary risk (e.g., interest rate risk) and the platform, where applicable, on which these derivatives are transacted. Balances are presented on a gross basis, prior to the application of counterparty and cash collateral netting. Total gross derivative assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements, which include reducing the balance for counterparty netting and cash collateral received or paid.

For more information on offsetting of securities financing agreements, see *Note 9 – Securities Financing Agreements, Collateral and Restricted Cash*.

Offsetting of Derivatives (1)

(Dollars in billions)	**Derivative Assets**	**Derivative Liabilities**	Derivative Assets	Derivative Liabilities
	June 30, 2023		December 31, 2022	
Interest rate contracts				
Over-the-counter	**$ 130.7**	**$ 125.4**	$ 138.4	$ 132.3
Exchange-traded	**0.4**	**0.2**	0.4	0.1
Over-the-counter cleared	**69.6**	**70.0**	71.4	71.1
Foreign exchange contracts				
Over-the-counter	**97.0**	**93.5**	109.7	110.6
Over-the-counter cleared	**1.1**	**0.9**	1.3	1.2
Equity contracts				
Over-the-counter	**24.5**	**31.4**	21.5	22.6
Exchange-traded	**33.9**	**36.1**	33.0	33.8
Commodity contracts				
Over-the-counter	**6.8**	**8.5**	8.3	9.3
Exchange-traded	**2.1**	**1.9**	2.4	1.9
Over-the-counter cleared	**0.3**	**0.4**	0.3	0.3
Credit derivatives				
Over-the-counter	**8.5**	**7.5**	8.9	7.5
Total gross derivative assets/liabilities, before netting				
Over-the-counter	**267.5**	**266.3**	286.8	282.3
Exchange-traded	**36.4**	**38.2**	35.8	35.8
Over-the-counter cleared	**71.0**	**71.3**	73.0	72.6
Less: Legally enforceable master netting agreements and cash collateral received/paid				
Over-the-counter	**(227.1)**	**(232.6)**	(243.8)	(248.2)
Exchange-traded	**(34.7)**	**(34.7)**	(33.5)	(33.5)
Over-the-counter cleared	**(70.3)**	**(70.8)**	(72.4)	(72.0)
Derivative assets/liabilities, after netting	**42.8**	**37.7**	45.9	37.0
Other gross derivative assets/liabilities (2)	**3.7**	**5.7**	2.7	7.8
Total derivative assets/liabilities	**46.5**	**43.4**	48.6	44.8
Less: Financial instruments collateral (3)	**(17.0)**	**(10.5)**	(18.5)	(7.4)
Total net derivative assets/liabilities	**$ 29.5**	**$ 32.9**	$ 30.1	$ 37.4

(1) Over-the-counter derivatives include bilateral transactions between the Corporation and a particular counterparty. Over-the-counter cleared derivatives include bilateral transactions between the Corporation and a counterparty where the transaction is cleared through a clearinghouse. Exchange-traded derivatives include listed options transacted on an exchange.
(2) Consists of derivatives entered into under master netting agreements where the enforceability of these agreements is uncertain under bankruptcy laws in some countries or industries.
(3) Amounts are limited to the derivative asset/liability balance and, accordingly, do not include excess collateral received/pledged. Financial instruments collateral includes securities collateral received or pledged and cash securities held and posted at third-party custodians that are not offset on the Consolidated Balance Sheet but shown as a reduction to derive net derivative assets and liabilities.

Derivatives Designated as Accounting Hedges

The Corporation uses various types of interest rate and foreign exchange derivative contracts to protect against changes in the fair value of its assets and liabilities due to fluctuations in interest rates and foreign exchange rates (fair value hedges). The Corporation also uses these types of contracts to protect against changes in the cash flows of its assets and liabilities, and other forecasted transactions (cash flow hedges). The Corporation hedges its net investment in consolidated non-U.S. operations determined to have functional currencies other than the U.S. dollar using forward exchange contracts and cross-currency basis swaps, and by issuing foreign currency denominated debt (net investment hedges).

Fair Value Hedges

The table below summarizes information related to fair value hedges for the three and six months ended June 30, 2023 and 2022.

Gains and Losses on Derivatives Designated as Fair Value Hedges

(Dollars in millions)	**Three Months Ended June 30, 2023**		Three Months Ended June 30, 2022	
	Derivative	**Hedged Item**	Derivative	Hedged Item
Interest rate risk on long-term debt [1]	**$ (3,550)**	**$ 3,516**	$ (7,989)	$ 7,974
Interest rate and foreign currency risk [2]	**107**	**(104)**	(51)	51
Interest rate risk on available-for-sale securities [3]	**1,880**	**(1,884)**	4,950	(5,031)
Price risk on commodity inventory [4]	**691**	**(691)**	600	(569)
Total	**$ (872)**	**$ 837**	$ (2,490)	$ 2,425

`	**Six Months Ended June 30, 2023**		Six Months Ended June 30, 2022	
	Derivative	**Hedged Item**	Derivative	Hedged Item
Interest rate risk on long-term debt [1]	**$ (242)**	**$ 211**	$ (19,023)	$ 19,193
Interest rate and foreign currency risk [2]	**115**	**(112)**	(60)	59
Interest rate risk on available-for-sale securities [3]	**(1,147)**	**1,132**	14,767	(14,936)
Price risk on commodity inventory [4]	**172**	**(172)**	368	(332)
Total	**$ (1,102)**	**$ 1,059**	$ (3,948)	$ 3,984

(1) Amounts are recorded in interest expense in the Consolidated Statement of Income.
(2) Represents cross-currency interest rate swaps related to available-for-sale debt securities and long-term debt. For the three and six months ended June 30, 2023, the derivative amount includes gains (losses) of $1 million and $1 million in interest income, $(1) million and $7 million in interest expense, $103 million and $105 million in market making and similar activities, and $4 million and $2 million in accumulated other comprehensive income (OCI). For the same periods in 2022, the derivative amount includes gains (losses) of $(13) million and $(34) million in interest expense, $(39) million and $(25) million in market making and similar activities, and $1 million and $(1) million in accumulated OCI. Line item totals are in the Consolidated Statement of Income and on the Consolidated Balance Sheet.
(3) Amounts are recorded in interest income in the Consolidated Statement of Income.
(4) Amounts are recorded in market making and similar activities in the Consolidated Statement of Income.

The table below summarizes the carrying value of hedged assets and liabilities that are designated and qualifying in fair value hedging relationships along with the cumulative amount of fair value hedging adjustments included in the carrying value that have been recorded in the current hedging relationships. These fair value hedging adjustments are open basis adjustments that are not subject to amortization as long as the hedging relationship remains designated.

Designated Fair Value Hedged Assets and Liabilities

	June 30, 2023		December 31, 2022	
(Dollars in millions)	**Carrying Value**	**Cumulative Fair Value Adjustments** [1]	Carrying Value	Cumulative Fair Value Adjustments [1]
Long-term debt [2]	**$ 186,666**	**$ (13,544)**	$ 187,402	$ (21,372)
Available-for-sale debt securities [2, 3, 4]	**81,209**	**(4,502)**	167,518	(18,190)
Trading account assets [5]	**6,722**	**53**	16,119	146

(1) Increase (decrease) to carrying value.
(2) At June 30, 2023 and December 31, 2022, the cumulative fair value adjustments remaining on long-term debt and available-for-sale debt securities from discontinued hedging relationships resulted in a decrease of $7.0 billion and an increase of $137 million in the related liability and a decrease in the related asset of $5.9 billion and $4.9 billion, which are being amortized over the remaining contractual life of the de-designated hedged items.
(3) These amounts include the amortized cost of the financial assets in closed portfolios used to designate hedging relationships in which the hedged item is a stated layer that is expected to be remaining at the end of the hedging relationship (i.e. portfolio layer hedging relationship). At June 30, 2023 and December 31, 2022, the amortized cost of the closed portfolios used in these hedging relationships was $20.4 billion and $21.4 billion, of which $13.2 billion and $9.2 billion were designated in a portfolio layer hedging relationship. At June 30, 2023 and December 31, 2022, the cumulative adjustment associated with these hedging relationships was a decrease of $507 million and $451 million.
(4) Carrying value represents amortized cost.
(5) Represents hedging activities related to certain commodities inventory.

Cash Flow and Net Investment Hedges

The following table summarizes certain information related to cash flow hedges and net investment hedges for the three and six months ended June 30, 2023 and 2022. Of the $11.9 billion after-tax net loss ($15.9 billion pretax) on derivatives in accumulated OCI at June 30, 2023, losses of $5.0 billion after-tax ($6.7 billion pretax) related to both open and terminated cash flow hedges are expected to be reclassified into earnings in the next 12 months. These net losses reclassified into earnings are expected to primarily decrease net interest income related to the respective hedged items. For open cash flow hedges, the maximum length of time over which forecasted transactions are hedged is approximately seven years. For terminated cash flow hedges, the time period over which the forecasted transactions will be recognized in interest income is approximately five years, with the aggregated amount beyond this time period being insignificant.

Gains and Losses on Derivatives Designated as Cash Flow and Net Investment Hedges

(Dollars in millions, amounts pretax)	Gains (Losses) Recognized in Accumulated OCI on Derivatives	Gains (Losses) in Income Reclassified from Accumulated OCI	Gains (Losses) Recognized in Accumulated OCI on Derivatives	Gains (Losses) in Income Reclassified from Accumulated OCI
	Three Months Ended June 30, 2023		**Six Months Ended June 30, 2023**	
Cash flow hedges				
Interest rate risk on variable-rate portfolios [1]	**$ (2,878)**	**$ (189)**	**$ (328)**	**$ (349)**
Price risk on forecasted MBS purchases [1]	**2**	**—**	**4**	**—**
Price risk on certain compensation plans [2]	**19**	**6**	**36**	**11**
Total	**$ (2,857)**	**$ (183)**	**$ (288)**	**$ (338)**
Net investment hedges				
Foreign exchange risk [3]	**$ (91)**	**$ 3**	**$ (468)**	**$ 3**
	Three Months Ended June 30, 2022		Six Months Ended June 30, 2022	
Cash flow hedges				
Interest rate risk on variable-rate portfolios [1]	$ (2,624)	$ (73)	$ (9,398)	$ (81)
Price risk on forecasted MBS purchases [1]	(39)	10	(129)	13
Price risk on certain compensation plans [2]	(67)	7	(94)	19
Total	$ (2,730)	$ (56)	$ (9,621)	$ (49)
Net investment hedges				
Foreign exchange risk [3]	$ 1,579	$ —	$ 1,798	$ —

(1) Amounts reclassified from accumulated OCI are recorded in interest income in the Consolidated Statement of Income.
(2) Amounts reclassified from accumulated OCI are recorded in compensation and benefits expense in the Consolidated Statement of Income.
(3) Amounts reclassified from accumulated OCI are recorded in other income in the Consolidated Statement of Income. For the three and six months ended June 30, 2023, amounts excluded from effectiveness testing and recognized in market making and similar activities were gains of $76 million and $109 million. For the same periods in 2022 amounts excluded from effectiveness testing and recognized in market making and similar activities were losses of $73 million and $147 million.

Other Risk Management Derivatives

Other risk management derivatives are used by the Corporation to reduce certain risk exposures by economically hedging various assets and liabilities. The table below presents gains (losses) on these derivatives for the three and six months ended June 30, 2023 and 2022. These gains (losses) are largely offset by the income or expense recorded on the hedged item.

Gains and Losses on Other Risk Management Derivatives

(Dollars in millions)	Three Months Ended June 30 **2023**	2022	Six Months Ended June 30 **2023**	2022
Interest rate risk on mortgage activities [1, 2]	**$ (23)**	$ (110)	**$ 3**	$ (257)
Credit risk on loans [2]	**(12)**	16	**(40)**	13
Interest rate and foreign currency risk on asset and liability management activities [3]	**781**	4,303	**659**	5,613
Price risk on certain compensation plans [4]	**188**	(756)	**383**	(1,091)

(1) Includes hedges of interest rate risk on mortgage servicing rights (MSRs) and interest rate lock commitments (IRLCs) to originate mortgage loans that will be held for sale.
(2) Gains (losses) on these derivatives are recorded in other income.
(3) Gains (losses) on these derivatives are recorded in market making and similar activities.
(4) Gains (losses) on these derivatives are recorded in compensation and benefits expense.

Transfers of Financial Assets with Risk Retained through Derivatives

The Corporation enters into certain transactions involving the transfer of financial assets that are accounted for as sales where substantially all of the economic exposure to the transferred financial assets is retained through derivatives (e.g., interest rate and/or credit), but the Corporation does not retain control over the assets transferred. At both June 30, 2023 and December 31, 2022, the Corporation had transferred $4.8 billion of non-U.S. government-guaranteed mortgage-backed securities to a third-party trust and retained economic exposure to the transferred assets through derivative contracts. In connection with these transfers, the Corporation received gross cash proceeds of $4.9 billion at the transfer dates. At June 30, 2023 and December 31, 2022, the fair value of the transferred securities was $4.8 billion and $4.7 billion.

Sales and Trading Revenue

The Corporation enters into trading derivatives to facilitate client transactions and to manage risk exposures arising from trading account assets and liabilities. It is the Corporation's policy to include these derivative instruments in its trading activities, which include derivatives and non-derivative cash instruments. The resulting risk from these derivatives is managed on a portfolio basis as part of the Corporation's *Global Markets* business segment. For more information on sales and trading revenue, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

The following table, which includes both derivatives and non-derivative cash instruments, identifies the amounts in the respective income statement line items attributable to the Corporation's sales and trading revenue in *Global Markets*, categorized by primary risk, for the three and six months ended June 30, 2023 and 2022. This table includes debit valuation adjustment (DVA) and funding valuation adjustment (FVA) gains (losses). *Global Markets* results in *Note 17 – Business Segment Information* are presented on a fully taxable-equivalent (FTE) basis. The following table is not presented on an FTE basis.

Sales and Trading Revenue

(Dollars in millions)	Market making and similar activities	Net Interest Income	Other [(1)]	Total	Market making and similar activities	Net Interest Income	Other [(1)]	Total
	Three Months Ended June 30, 2023				**Six Months Ended June 30, 2023**			
Interest rate risk	**$ 807**	**$ 39**	**$ 125**	**$ 971**	**$ 2,052**	**$ 138**	**$ 211**	**$ 2,401**
Foreign exchange risk	**506**	**31**	**15**	**552**	**908**	**80**	**39**	**1,027**
Equity risk	**1,659**	**(511)**	**459**	**1,607**	**3,659**	**(1,348)**	**918**	**3,229**
Credit risk	**311**	**610**	**94**	**1,015**	**791**	**1,276**	**209**	**2,276**
Other risk [(2)]	**125**	**(63)**	**(7)**	**55**	**395**	**(143)**	**(8)**	**244**
Total sales and trading revenue	**$ 3,408**	**$ 106**	**$ 686**	**$ 4,200**	**$ 7,805**	**$ 3**	**$ 1,369**	**$ 9,177**
	Three Months Ended June 30, 2022				Six Months Ended June 30, 2022			
Interest rate risk	$ 491	$ 497	$ 82	$ 1,070	$ 1,080	$ 949	$ 151	$ 2,180
Foreign exchange risk	503	(9)	2	496	1,010	(26)	3	987
Equity risk	1,378	(235)	487	1,630	2,942	(295)	988	3,635
Credit risk	71	539	46	656	310	1,015	60	1,385
Other risk [(2)]	213	(42)	28	199	504	(75)	61	490
Total sales and trading revenue	$ 2,656	$ 750	$ 645	$ 4,051	$ 5,846	$ 1,568	$ 1,263	$ 8,677

(1) Represents amounts in investment and brokerage services and other income that are recorded in *Global Markets* and included in the definition of sales and trading revenue. Includes investment and brokerage services revenue of $492 million and $1.0 billion for the three and six months ended June 30, 2023 compared to $504 million and $1.0 billion for the same periods in 2022.
(2) Includes commodity risk.

Credit Derivatives

The Corporation enters into credit derivatives primarily to facilitate client transactions and to manage credit risk exposures. Credit derivatives are classified as investment and non-investment grade based on the credit quality of the underlying referenced obligation. The Corporation considers ratings of BBB- or higher as investment grade. Non-investment grade includes non-rated credit derivative instruments. The Corporation discloses internal categorizations of investment grade and non-investment grade consistent with how risk is managed for these instruments. For more information on credit derivatives, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Credit derivative instruments where the Corporation is the seller of credit protection and their expiration at June 30, 2023 and December 31, 2022 are summarized in the table below.

Credit Derivative Instruments

(Dollars in millions)	Less than One Year	One to Three Years	Three to Five Years	Over Five Years	Total
			June 30, 2023		
			Carrying Value		
Credit default swaps:					
Investment grade	$ 1	$ 14	$ 76	$ 25	$ 116
Non-investment grade	32	347	862	807	2,048
Total	33	361	938	832	2,164
Total return swaps/options:					
Investment grade	18	207	1	—	226
Non-investment grade	43	18	106	5	172
Total	61	225	107	5	398
Total credit derivatives	$ 94	$ 586	$ 1,045	$ 837	$ 2,562
Credit-related notes:					
Investment grade	$ —	$ —	$ 2	$ 743	$ 745
Non-investment grade	—	4	4	1,057	1,065
Total credit-related notes	$ —	$ 4	$ 6	$ 1,800	$ 1,810
			Maximum Payout/Notional		
Credit default swaps:					
Investment grade	$ 36,119	$ 70,422	$ 165,944	$ 20,253	$ 292,738
Non-investment grade	16,702	31,493	46,789	6,519	101,503
Total	52,821	101,915	212,733	26,772	394,241
Total return swaps/options:					
Investment grade	39,429	13,323	1,608	66	54,426
Non-investment grade	24,483	1,532	2,155	858	29,028
Total	63,912	14,855	3,763	924	83,454
Total credit derivatives	$ 116,733	$ 116,770	$ 216,496	$ 27,696	$ 477,695
			December 31, 2022		
			Carrying Value		
Credit default swaps:					
Investment grade	$ 2	$ 25	$ 133	$ 34	$ 194
Non-investment grade	120	516	870	697	2,203
Total	122	541	1,003	731	2,397
Total return swaps/options:					
Investment grade	55	336	—	—	391
Non-investment grade	332	9	132	10	483
Total	387	345	132	10	874
Total credit derivatives	$ 509	$ 886	$ 1,135	$ 741	$ 3,271
Credit-related notes:					
Investment grade	$ —	$ —	$ 19	$ 1,017	$ 1,036
Non-investment grade	—	7	6	1,035	1,048
Total credit-related notes	$ —	$ 7	$ 25	$ 2,052	$ 2,084
			Maximum Payout/Notional		
Credit default swaps:					
Investment grade	$ 34,670	$ 66,170	$ 93,237	$ 18,677	$ 212,754
Non-investment grade	15,229	29,629	30,891	6,662	82,411
Total	49,899	95,799	124,128	25,339	295,165
Total return swaps/options:					
Investment grade	38,722	10,407	—	—	49,129
Non-investment grade	32,764	500	2,054	897	36,215
Total	71,486	10,907	2,054	897	85,344
Total credit derivatives	$ 121,385	$ 106,706	$ 126,182	$ 26,236	$ 380,509

The notional amount represents the maximum amount payable by the Corporation for most credit derivatives. However, the Corporation does not monitor its exposure to credit derivatives based solely on the notional amount because this measure does not take into consideration the probability of occurrence. As such, the notional amount is not a reliable indicator of the Corporation's exposure to these contracts. Instead, a risk framework is used to define risk tolerances and establish limits so that certain credit risk-related losses occur within acceptable, predefined limits.

Credit-related notes in the table above include investments in securities issued by collateralized debt obligation (CDO), collateralized loan obligation (CLO) and credit-linked note vehicles. These instruments are primarily classified as trading securities. The carrying value of these instruments equals the Corporation's maximum exposure to loss. The Corporation is not obligated to make any payments to the entities under the terms of the securities owned.

Credit-related Contingent Features and Collateral

Certain of the Corporation's derivative contracts contain credit risk-related contingent features, primarily in the form of ISDA master netting agreements and credit support documentation that enhance the creditworthiness of these instruments compared to other obligations of the respective counterparty with whom the Corporation has transacted. These contingent features may be for the benefit of the Corporation as well as its counterparties with respect to changes in the Corporation's creditworthiness and the mark-to-market exposure under the derivative transactions. At June 30, 2023 and December 31, 2022, the Corporation held cash and securities collateral of $101.1 billion and $101.3 billion and posted cash and securities collateral of $88.3 billion and $81.2 billion in the normal course of business under derivative agreements, excluding cross-product margining agreements where clients are permitted to margin on a net basis for both derivative and secured financing arrangements.

In connection with certain OTC derivative contracts and other trading agreements, the Corporation can be required to provide additional collateral or to terminate transactions with certain counterparties in the event of a downgrade of the senior debt ratings of the Corporation or certain subsidiaries. The amount of additional collateral required depends on the contract and is usually a fixed incremental amount and/or the market value of the exposure. For more information on credit-related contingent features and collateral, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

At June 30, 2023, the amount of collateral, calculated based on the terms of the contracts, that the Corporation and certain subsidiaries could be required to post to counterparties but had not yet posted to counterparties was $3.8 billion, including $2.3 billion for Bank of America, National Association (BANA).

Some counterparties are currently able to unilaterally terminate certain contracts, or the Corporation or certain subsidiaries may be required to take other action such as find a suitable replacement or obtain a guarantee. At June 30, 2023 and December 31, 2022, the liability recorded for these derivative contracts was not significant.

The following table presents the amount of additional collateral that would have been contractually required by derivative contracts and other trading agreements at June 30, 2023 if the rating agencies had downgraded their long-term senior debt ratings for the Corporation or certain subsidiaries by one incremental notch and by an additional second incremental notch. The table also presents derivative liabilities that would be subject to unilateral termination by counterparties upon downgrade of the Corporation's or certain subsidiaries' long-term senior debt ratings.

Additional Collateral Required to be Posted and Derivative Liabilities Subject to Unilateral Termination Upon Downgrade at June 30, 2023

(Dollars in millions)	One Incremental Notch	Second Incremental Notch
Additional collateral required to be posted upon downgrade		
Bank of America Corporation	$ 145	$ 906
Bank of America, N.A. and subsidiaries [1]	61	705
Derivative liabilities subject to unilateral termination upon downgrade		
Derivative liabilities	$ 152	$ 525
Collateral posted	98	249

(1) Included in Bank of America Corporation collateral requirements in this table.

Valuation Adjustments on Derivatives

The table below presents credit valuation adjustment (CVA), DVA and FVA gains (losses) on derivatives (excluding the effect of any related hedge activities), which are recorded in market making and similar activities, for the three and six months ended June 30, 2023 and 2022. For more information on the valuation adjustments on derivatives, see *Note 3 – Derivatives* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Valuation Adjustments Gains (Losses) on Derivatives [1]

	Three Months Ended June 30	
(Dollars in millions)	**2023**	2022
Derivative assets (CVA)	**$ 109**	$ (114)
Derivative assets/liabilities (FVA)	**26**	45
Derivative liabilities (DVA)	**(86)**	220

	Six Months Ended June 30	
(Dollars in millions)	**2023**	2022
Derivative assets (CVA)	**$ 121**	$ (173)
Derivative assets/liabilities (FVA)	**(17)**	80
Derivative liabilities (DVA)	**(84)**	341

(1) At June 30, 2023 and December 31, 2022, cumulative CVA reduced the derivative assets balance by $397 million and $518 million, cumulative FVA reduced the net derivative balance by $71 million and $54 million, and cumulative DVA reduced the derivative liabilities balance by $422 million and $506 million.

NOTE 4 Securities

The table below presents the amortized cost, gross unrealized gains and losses, and fair value of available-for-sale (AFS) debt securities, other debt securities carried at fair value and held-to-maturity (HTM) debt securities at June 30, 2023 and December 31, 2022.

Debt Securities

(Dollars in millions)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
	June 30, 2023				December 31, 2022			
Available-for-sale debt securities								
Mortgage-backed securities:								
Agency	**$ 23,621**	**$ 1**	**$ (1,469)**	**$ 22,153**	$ 25,204	$ 5	$ (1,767)	$ 23,442
Agency-collateralized mortgage obligations	**2,033**	**—**	**(230)**	**1,803**	2,452	—	(231)	2,221
Commercial	**6,966**	**26**	**(511)**	**6,481**	6,894	28	(515)	6,407
Non-agency residential [1]	**455**	**3**	**(59)**	**399**	461	15	(90)	386
Total mortgage-backed securities	**33,075**	**30**	**(2,269)**	**30,836**	35,011	48	(2,603)	32,456
U.S. Treasury and government agencies	**72,422**	**1**	**(1,065)**	**71,358**	160,773	18	(1,769)	159,022
Non-U.S. securities	**15,445**	**33**	**(70)**	**15,408**	13,455	4	(52)	13,407
Other taxable securities	**3,858**	**1**	**(86)**	**3,773**	4,728	1	(84)	4,645
Tax-exempt securities	**10,884**	**14**	**(268)**	**10,630**	11,518	19	(279)	11,258
Total available-for-sale debt securities	**135,684**	**79**	**(3,758)**	**132,005**	225,485	90	(4,787)	220,788
Other debt securities carried at fair value [2]	**10,008**	**122**	**(95)**	**10,035**	8,986	376	(156)	9,206
Total debt securities carried at fair value	**145,692**	**201**	**(3,853)**	**142,040**	234,471	466	(4,943)	229,994
Held-to-maturity debt securities								
Agency mortgage-backed securities	**484,753**	**—**	**(85,005)**	**399,748**	503,233	—	(87,319)	415,914
U.S. Treasury and government agencies	**121,621**	**—**	**(19,788)**	**101,833**	121,597	—	(20,259)	101,338
Other taxable securities	**7,775**	**—**	**(1,005)**	**6,770**	8,033	—	(1,018)	7,015
Total held-to-maturity debt securities	**614,149**	**—**	**(105,798)**	**508,351**	632,863	—	(108,596)	524,267
Total debt securities [3,4]	**$ 759,841**	**$ 201**	**$ (109,651)**	**$ 650,391**	$ 867,334	$ 466	$ (113,539)	$ 754,261

[1] At both June 30, 2023 and December 31, 2022, the underlying collateral type included approximately 17 percent prime and 83 percent subprime.
[2] Primarily includes non-U.S. securities used to satisfy certain international regulatory requirements. Any changes in value are reported in market making and similar activities. For detail on the components, see *Note 14 – Fair Value Measurements*.
[3] Includes securities pledged as collateral of $138.6 billion and $104.5 billion at June 30, 2023 and December 31, 2022.
[4] The Corporation held debt securities from Fannie Mae (FNMA) and Freddie Mac (FHLMC) that each exceeded 10 percent of shareholders' equity, with an amortized cost of $279.8 billion and $170.8 billion, and a fair value of $230.3 billion and $139.6 billion at June 30, 2023, and an amortized cost of $290.5 billion and $176.7 billion, and a fair value of $239.6 billion and $144.6 billion at December 31, 2022.

At June 30, 2023, the accumulated net unrealized loss on AFS debt securities, excluding the amount related to debt securities previously transferred to held to maturity, included in accumulated OCI was $2.7 billion, net of the related income tax benefit of $916 million. At June 30, 2023 and December 31, 2022, nonperforming AFS debt securities held by the Corporation were not significant.

At June 30, 2023 and December 31, 2022, $717.5 billion and $826.5 billion of AFS and HTM debt securities, which were predominantly U.S. agency and U.S. Treasury securities, have a zero credit loss assumption. For the same periods, the ECL on the remaining $32.3 billion and $31.8 billion of AFS and HTM debt securities were insignificant. For more information on the zero credit loss assumption, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

At June 30, 2023 and December 31, 2022, the Corporation held equity securities at an aggregate fair value of $574 million and $581 million and other equity securities, as valued under the measurement alternative, at a carrying value of $366 million and $340 million, both of which are included in other assets. At June 30, 2023 and December 31, 2022, the Corporation also held money market investments at a fair value of $902 million and $868 million, which are included in time deposits placed and other short-term investments.

The gross realized gains and losses on sales of AFS debt securities for the three and six months ended June 30, 2023 and 2022 are presented in the table below.

Gains and Losses on Sales of AFS Debt Securities

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Gross gains	**$ 8**	$ 666	**$ 104**	$ 702
Gross losses	**(202)**	(650)	**(508)**	(680)
Net gains (losses) on sales of AFS debt securities	**$ (194)**	$ 16	**$ (404)**	$ 22
Income tax expense (benefit) attributable to realized net gains (losses) on sales of AFS debt securities	**$ (48)**	$ 4	**$ (101)**	$ 6

The table below presents the fair value and the associated gross unrealized losses on AFS debt securities and whether these securities have had gross unrealized losses for less than 12 months or for 12 months or longer at June 30, 2023 and December 31, 2022.

Total AFS Debt Securities in a Continuous Unrealized Loss Position

	Less than Twelve Months		Twelve Months or Longer		Total	
(Dollars in millions)	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
	June 30, 2023					
Continuously unrealized loss-positioned AFS debt securities						
Mortgage-backed securities:						
Agency	**$ 7,176**	**$ (256)**	**$ 14,675**	**$ (1,213)**	**$ 21,851**	**$ (1,469)**
Agency-collateralized mortgage obligations	**92**	**(9)**	**1,709**	**(221)**	**1,801**	**(230)**
Commercial	**1,073**	**(29)**	**4,287**	**(482)**	**5,360**	**(511)**
Non-agency residential	**—**	**—**	**387**	**(59)**	**387**	**(59)**
Total mortgage-backed securities	**8,341**	**(294)**	**21,058**	**(1,975)**	**29,399**	**(2,269)**
U.S. Treasury and government agencies	**2,047**	**(96)**	**66,308**	**(969)**	**68,355**	**(1,065)**
Non-U.S. securities	**6,906**	**(40)**	**1,319**	**(30)**	**8,225**	**(70)**
Other taxable securities	**2,312**	**(27)**	**1,205**	**(59)**	**3,517**	**(86)**
Tax-exempt securities	**671**	**(6)**	**2,899**	**(262)**	**3,570**	**(268)**
Total AFS debt securities in a continuous unrealized loss position	**$ 20,277**	**$ (463)**	**$ 92,789**	**$ (3,295)**	**$ 113,066**	**$ (3,758)**
	December 31, 2022					
Continuously unrealized loss-positioned AFS debt securities						
Mortgage-backed securities:						
Agency	$ 18,759	$ (1,118)	$ 4,437	$ (649)	$ 23,196	$ (1,767)
Agency-collateralized mortgage obligations	1,165	(96)	1,022	(135)	2,187	(231)
Commercial	3,273	(150)	2,258	(365)	5,531	(515)
Non-agency residential	264	(65)	97	(25)	361	(90)
Total mortgage-backed securities	23,461	(1,429)	7,814	(1,174)	31,275	(2,603)
U.S. Treasury and government agencies	36,730	(308)	118,636	(1,461)	155,366	(1,769)
Non-U.S. securities	9,399	(34)	756	(18)	10,155	(52)
Other taxable securities	2,036	(16)	1,580	(68)	3,616	(84)
Tax-exempt securities	607	(28)	2,849	(251)	3,456	(279)
Total AFS debt securities in a continuous unrealized loss position	$ 72,233	$ (1,815)	$ 131,635	$ (2,972)	$ 203,868	$ (4,787)

The remaining contractual maturity distribution and yields of the Corporation's debt securities carried at fair value and HTM debt securities at June 30, 2023 are summarized in the table below. Actual duration and yields may differ as prepayments on the loans underlying the mortgage-backed securities (MBS) or other asset-backed securities (ABS) are passed through to the Corporation.

Maturities of Debt Securities Carried at Fair Value and Held-to-maturity Debt Securities

	Due in One Year or Less		Due after One Year through Five Years		Due after Five Years through Ten Years		Due after Ten Years		Total	
(Dollars in millions)	Amount	Yield [1]	Amount	Yield [1]	Amount	Yield [1]	Amount	Yield [1]	Amount	Yield [1]
Amortized cost of debt securities carried at fair value										
Mortgage-backed securities:										
Agency	$ —	— %	$ 3	4.67 %	$ 53	4.85 %	$ 23,565	3.41 %	$ 23,621	3.41 %
Agency-collateralized mortgage obligations	—	—	2	2.00	—	—	2,031	2.79	2,033	2.79
Commercial	13	1.85	790	2.99	4,587	2.37	1,588	2.33	6,978	2.43
Non-agency residential	—	—	—	—	—	—	736	10.62	736	10.62
Total mortgage-backed securities	13	1.85	795	2.99	4,640	2.40	27,920	3.49	33,368	3.33
U.S. Treasury and government agencies	4,012	4.35	38,478	3.12	30,720	2.43	37	3.79	73,247	2.90
Non-U.S. securities	16,323	1.69	4,093	2.20	3,371	5.07	548	5.14	24,335	2.32
Other taxable securities	477	5.58	2,865	4.66	309	3.03	207	4.47	3,858	4.64
Tax-exempt securities	961	3.66	4,019	3.79	2,104	3.82	3,800	4.23	10,884	3.94
Total amortized cost of debt securities carried at fair value	**$ 21,786**	**2.35**	**$ 50,250**	**3.18**	**$ 41,144**	**2.72**	**$ 32,512**	**3.61**	**$ 145,692**	**3.02**
Amortized cost of HTM debt securities										
Agency mortgage-backed securities	$ —	— %	$ —	— %	$ 13	2.62 %	$ 484,740	2.12 %	$ 484,753	2.12 %
U.S. Treasury and government agencies	—	—	4,553	1.80	117,068	1.37	—	—	121,621	1.39
Other taxable securities	41	9.33	1,275	2.43	278	3.24	6,181	2.48	7,775	2.53
Total amortized cost of HTM debt securities	**$ 41**	**9.33**	**$ 5,828**	**1.94**	**$ 117,359**	**1.37**	**$ 490,921**	**2.12**	**$ 614,149**	**1.97**
Debt securities carried at fair value										
Mortgage-backed securities:										
Agency	$ —		$ 3		$ 53		$ 22,097		$ 22,153	
Agency-collateralized mortgage obligations	—		2		—		1,801		1,803	
Commercial	13		765		4,356		1,358		6,492	
Non-agency residential	—		2		—		693		695	
Total mortgage-backed securities	13		772		4,409		25,949		31,143	
U.S. Treasury and government agencies	4,010		37,941		30,195		36		72,182	
Non-U.S. securities	16,307		4,093		3,362		546		24,308	
Other taxable securities	474		2,830		276		197		3,777	
Tax-exempt securities	960		3,981		2,081		3,608		10,630	
Total debt securities carried at fair value	**$ 21,764**		**$ 49,617**		**$ 40,323**		**$ 30,336**		**$ 142,040**	
Fair value of HTM debt securities										
Agency mortgage-backed securities	$ —		$ —		$ 12		$ 399,736		$ 399,748	
U.S. Treasury and government agencies	—		4,171		97,662		—		101,833	
Other taxable securities	41		1,194		266		5,269		6,770	
Total fair value of HTM debt securities	**$ 41**		**$ 5,365**		**$ 97,940**		**$ 405,005**		**$ 508,351**	

(1) The weighted-average yield is computed based on a constant effective interest rate over the contractual life of each security. The average yield considers the contractual coupon and the amortization of premiums and accretion of discounts, excluding the effect of related hedging derivatives.

NOTE 5 Outstanding Loans and Leases and Allowance for Credit Losses

The following tables present total outstanding loans and leases and an aging analysis for the Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments, by class of financing receivables, at June 30, 2023 and December 31, 2022.

(Dollars in millions)	30-59 Days Past Due [1]	60-89 Days Past Due [1]	90 Days or More Past Due [1]	Total Past Due 30 Days or More	Total Current or Less Than 30 Days Past Due [1]	Loans Accounted for Under the Fair Value Option	Total Outstandings
	June 30, 2023						
Consumer real estate							
Residential mortgage	$ 1,120	$ 278	$ 804	$ 2,202	$ 226,713		$ 228,915
Home equity	90	40	179	309	25,227		25,536
Credit card and other consumer							
Credit card	547	368	896	1,811	95,198		97,009
Direct/Indirect consumer [2]	228	61	63	352	104,060		104,412
Other consumer	—	—	—	—	132		132
Total consumer	1,985	747	1,942	4,674	451,330		456,004
Consumer loans accounted for under the fair value option [3]						$ 266	266
Total consumer loans and leases	1,985	747	1,942	4,674	451,330	266	456,270
Commercial							
U.S. commercial	744	150	275	1,169	359,627		360,796
Non-U.S. commercial	73	15	75	163	123,355		123,518
Commercial real estate [4]	128	73	173	374	73,916		74,290
Commercial lease financing	16	6	5	27	13,466		13,493
U.S. small business commercial [5]	133	74	201	408	18,388		18,796
Total commercial	1,094	318	729	2,141	588,752		590,893
Commercial loans accounted for under the fair value option [3]						4,061	4,061
Total commercial loans and leases	1,094	318	729	2,141	588,752	4,061	594,954
Total loans and leases [6]	$ 3,079	$ 1,065	$ 2,671	$ 6,815	$ 1,040,082	$ 4,327	$ 1,051,224
Percentage of outstandings	0.29 %	0.10 %	0.26 %	0.65 %	98.94 %	0.41 %	100.00 %

(1) Consumer real estate loans 30-59 days past due includes fully-insured loans of $166 million and nonperforming loans of $192 million. Consumer real estate loans 60-89 days past due includes fully-insured loans of $70 million and nonperforming loans of $109 million. Consumer real estate loans 90 days or more past due includes fully-insured loans of $288 million and nonperforming loans of $695 million. Consumer real estate loans current or less than 30 days past due includes $1.6 billion, and direct/indirect consumer includes $31 million of nonperforming loans.

(2) Total outstandings primarily includes auto and specialty lending loans and leases of $53.3 billion, U.S. securities-based lending loans of $47.3 billion and non-U.S. consumer loans of $2.9 billion.

(3) Consumer loans accounted for under the fair value option includes residential mortgage loans of $69 million and home equity loans of $197 million. Commercial loans accounted for under the fair value option includes U.S. commercial loans of $2.3 billion and non-U.S. commercial loans of $1.8 billion. For more information, see *Note 14 – Fair Value Measurements* and *Note 15 – Fair Value Option*.

(4) Total outstandings includes U.S. commercial real estate loans of $68.1 billion and non-U.S. commercial real estate loans of $6.2 billion.

(5) Includes Paycheck Protection Program loans.

(6) Total outstandings includes loans and leases pledged as collateral of $25.6 billion. The Corporation also pledged $253.5 billion of loans with no related outstanding borrowings to secure potential borrowing capacity with the Federal Reserve Bank and Federal Home Loan Bank.

(Dollars in millions)	30-59 Days Past Due [1]	60-89 Days Past Due [1]	90 Days or More Past Due [1]	Total Past Due 30 Days or More	Total Current or Less Than 30 Days Past Due [1]	Loans Accounted for Under the Fair Value Option	Total Outstandings
	December 31, 2022						
Consumer real estate							
Residential mortgage	$ 1,077	$ 245	$ 945	$ 2,267	$ 227,403		$ 229,670
Home equity	88	32	211	331	26,232		26,563
Credit card and other consumer							
Credit card	466	322	717	1,505	91,916		93,421
Direct/Indirect consumer [2]	204	59	45	308	105,928		106,236
Other consumer	—	—	—	—	156		156
Total consumer	1,835	658	1,918	4,411	451,635		456,046
Consumer loans accounted for under the fair value option [3]						$ 339	339
Total consumer loans and leases	1,835	658	1,918	4,411	451,635	339	456,385
Commercial							
U.S. commercial	827	288	330	1,445	357,036		358,481
Non-U.S. commercial	317	59	144	520	123,959		124,479
Commercial real estate [4]	409	81	77	567	69,199		69,766
Commercial lease financing	49	9	11	69	13,575		13,644
U.S. small business commercial [5]	107	63	356	526	17,034		17,560
Total commercial	1,709	500	918	3,127	580,803		583,930
Commercial loans accounted for under the fair value option [3]						5,432	5,432
Total commercial loans and leases	1,709	500	918	3,127	580,803	5,432	589,362
Total loans and leases [6]	$ 3,544	$ 1,158	$ 2,836	$ 7,538	$ 1,032,438	$ 5,771	$ 1,045,747
Percentage of outstandings	0.34 %	0.11 %	0.27 %	0.72 %	98.73 %	0.55 %	100.00 %

(1) Consumer real estate loans 30-59 days past due includes fully-insured loans of $184 million and nonperforming loans of $155 million. Consumer real estate loans 60-89 days past due includes fully-insured loans of $75 million and nonperforming loans of $88 million. Consumer real estate loans 90 days or more past due includes fully-insured loans of $368 million and nonperforming loans of $788 million. Consumer real estate loans current or less than 30 days past due includes $1.6 billion, and direct/indirect consumer includes $27 million of nonperforming loans.
(2) Total outstandings primarily includes auto and specialty lending loans and leases of $51.8 billion, U.S. securities-based lending loans of $50.4 billion and non-U.S. consumer loans of $3.0 billion.
(3) Consumer loans accounted for under the fair value option includes residential mortgage loans of $71 million and home equity loans of $268 million. Commercial loans accounted for under the fair value option includes U.S. commercial loans of $2.9 billion and non-U.S. commercial loans of $2.5 billion. For more information, see *Note 14 – Fair Value Measurements* and *Note 15 – Fair Value Option*.
(4) Total outstandings includes U.S. commercial real estate loans of $64.9 billion and non-U.S. commercial real estate loans of $4.8 billion.
(5) Includes Paycheck Protection Program loans.
(6) Total outstandings includes loans and leases pledged as collateral of $ 18.5 billion. The Corporation also pledged $163.6 billion of loans with no related outstanding borrowings to secure potential borrowing capacity with the Federal Reserve Bank and Federal Home Loan Bank.

The Corporation has entered into long-term credit protection agreements with FNMA and FHLMC on loans totaling $9.1 billion and $9.5 billion at June 30, 2023 and December 31, 2022, providing full credit protection on residential mortgage loans that become severely delinquent. All of these loans are individually insured, and therefore the Corporation does not record an allowance for credit losses related to these loans.

Nonperforming Loans and Leases

Commercial nonperforming loans increased to $1.4 billion at June 30, 2023 from $1.1 billion at December 31, 2022, driven by the commercial real estate office property type. Consumer nonperforming loans decreased to $2.7 billion at June 30, 2023 from $2.8 billion at December 31, 2022.

The following table presents the Corporation's nonperforming loans and leases and loans accruing past due 90 days or more at June 30, 2023 and December 31, 2022. Nonperforming LHFS are excluded from nonperforming loans and leases as they are recorded at either fair value or the lower of cost or fair value. For more information on the criteria for classification as nonperforming, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Credit Quality

(Dollars in millions)	Nonperforming Loans and Leases		Accruing Past Due 90 Days or More	
	June 30 2023	December 31 2022	**June 30 2023**	December 31 2022
Residential mortgage [1]	**$ 2,140**	$ 2,167	**$ 288**	$ 368
With no related allowance [2]	**1,958**	1,973	**—**	—
Home equity [1]	**482**	510	**—**	—
With no related allowance [2]	**400**	393	**—**	—
Credit Card	**n/a**	n/a	**896**	717
Direct/indirect consumer	**107**	77	**1**	2
Total consumer	**2,729**	2,754	**1,185**	1,087
U.S. commercial	**476**	553	**132**	190
Non-U.S. commercial	**84**	212	**13**	25
Commercial real estate	**816**	271	**7**	46
Commercial lease financing	**6**	4	**2**	8
U.S. small business commercial	**15**	14	**201**	355
Total commercial	**1,397**	1,054	**355**	624
Total nonperforming loans	**$ 4,126**	$ 3,808	**$ 1,540**	$ 1,711
Percentage of outstanding loans and leases	**0.39 %**	0.37 %	**0.15 %**	0.16 %

(1) Residential mortgage loans accruing past due 90 days or more are fully-insured loans. At June 30, 2023 and December 31, 2022 residential mortgage included $198 million and $260 million of loans on which interest had been curtailed by the Federal Housing Administration (FHA), and therefore were no longer accruing interest, although principal was still insured, and $90 million and $108 million of loans on which interest was still accruing.
(2) Primarily relates to loans for which the estimated fair value of the underlying collateral less any costs to sell is greater than the amortized cost of the loans as of the reporting date.
n/a = not applicable

Credit Quality Indicators

The Corporation monitors credit quality within its Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments based on primary credit quality indicators. For more information on the portfolio segments, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K. Within the Consumer Real Estate portfolio segment, the primary credit quality indicators are refreshed loan-to-value (LTV) and refreshed Fair Isaac Corporation (FICO) score. Refreshed LTV measures the carrying value of the loan as a percentage of the value of the property securing the loan, refreshed quarterly. Home equity loans are evaluated using combined loan-to-value (CLTV), which measures the carrying value of the Corporation's loan and available line of credit combined with any outstanding senior liens against the property as a percentage of the value of the property securing the loan, refreshed quarterly. FICO score measures the creditworthiness of the borrower based on the financial obligations of the borrower and the borrower's credit history. FICO scores are typically refreshed quarterly or more frequently. Certain borrowers (e.g., borrowers that have had debts discharged in a bankruptcy proceeding) may not have their FICO scores updated. FICO scores are also a primary credit quality indicator for the Credit Card and Other Consumer portfolio segment and the business card portfolio within U.S. small business commercial. Within the Commercial portfolio segment, loans are evaluated using the internal classifications of pass rated or reservable criticized as the primary credit quality indicators. The term reservable criticized refers to those commercial loans that are internally classified or listed by the Corporation as Special Mention, Substandard or Doubtful, which are asset quality categories defined by regulatory authorities. These assets have an elevated level of risk and may have a high probability of default or total loss. Pass rated refers to all loans not considered reservable criticized. In addition to these primary credit quality indicators, the Corporation uses other credit quality indicators for certain types of loans.

The following tables present certain credit quality indicators and gross charge-offs for the Corporation's Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments by year of origination, except for revolving loans and revolving loans that were modified into term loans, which are shown on an aggregate basis at June 30, 2023.

Residential Mortgage – Credit Quality Indicators By Vintage

(Dollars in millions)	Total as of June 30, 2023	Term Loans by Origination Year 2023	2022	2021	2020	2019	Prior
Residential Mortgage							
Refreshed LTV							
Less than or equal to 90 percent	**$ 213,891**	$ 7,727	$ 37,772	$ 79,232	$ 35,641	$ 18,151	$ 35,368
Greater than 90 percent but less than or equal to 100 percent	**2,765**	455	1,656	522	78	17	37
Greater than 100 percent	**1,089**	202	596	190	39	16	46
Fully-insured loans	**11,170**	185	437	3,528	2,955	896	3,169
Total Residential Mortgage	**$ 228,915**	$ 8,569	$ 40,461	$ 83,472	$ 38,713	$ 19,080	$ 38,620
Residential Mortgage							
Refreshed FICO score							
Less than 620	**$ 2,114**	$ 53	$ 398	$ 510	$ 362	$ 110	$ 681
Greater than or equal to 620 and less than 680	**4,730**	188	957	1,240	764	317	1,264
Greater than or equal to 680 and less than 740	**23,609**	796	5,132	7,273	3,892	1,974	4,542
Greater than or equal to 740	**187,292**	7,347	33,537	70,921	30,740	15,783	28,964
Fully-insured loans	**11,170**	185	437	3,528	2,955	896	3,169
Total Residential Mortgage	**$ 228,915**	$ 8,569	$ 40,461	$ 83,472	$ 38,713	$ 19,080	$ 38,620
Gross charge-offs for the six months ended June 30, 2023	**$ 18**	$ —	$ 3	$ 4	$ 2	$ —	$ 9

Home Equity - Credit Quality Indicators

(Dollars in millions)	Total	Home Equity Loans and Reverse Mortgages [1]	Revolving Loans	Revolving Loans Converted to Term Loans
	June 30, 2023			
Home Equity				
Refreshed LTV				
Less than or equal to 90 percent	**$ 25,360**	**$ 1,163**	**$ 19,658**	**$ 4,539**
Greater than 90 percent but less than or equal to 100 percent	**76**	**17**	**45**	**14**
Greater than 100 percent	**100**	**37**	**36**	**27**
Total Home Equity	**$ 25,536**	**$ 1,217**	**$ 19,739**	**$ 4,580**
Home Equity				
Refreshed FICO score				
Less than 620	**$ 635**	**$ 138**	**$ 204**	**$ 293**
Greater than or equal to 620 and less than 680	**1,105**	**133**	**516**	**456**
Greater than or equal to 680 and less than 740	**4,182**	**273**	**2,810**	**1,099**
Greater than or equal to 740	**19,614**	**673**	**16,209**	**2,732**
Total Home Equity	**$ 25,536**	**$ 1,217**	**$ 19,739**	**$ 4,580**
Gross charge-offs for the six months ended June 30, 2023	**$ 11**	**$ 1**	**$ 5**	**$ 5**

[1] Includes reverse mortgages of $834 million and home equity loans of $383 million, which are no longer originated.

Credit Card and Direct/Indirect Consumer – Credit Quality Indicators By Vintage

	Direct/Indirect		Term Loans by Origination Year						Credit Card		
(Dollars in millions)	Total Direct/ Indirect as of June 30, 2023	Revolving Loans	2023	2022	2021	2020	2019	Prior	Total Credit Card as of June 30, 2023	Revolving Loans	Revolving Loans Converted to Term Loans [1]
Refreshed FICO score											
Less than 620	**$ 996**	$ 11	$ 87	$ 346	$ 320	$ 101	$ 66	$ 65	**$ 4,445**	$ 4,207	$ 238
Greater than or equal to 620 and less than 680	**2,459**	11	506	930	617	185	103	107	**11,008**	10,781	227
Greater than or equal to 680 and less than 740	**8,701**	48	2,044	3,166	2,085	668	354	336	**33,158**	32,957	201
Greater than or equal to 740	**41,303**	75	9,426	14,020	9,572	4,044	2,110	2,056	**48,398**	48,350	48
Other internal credit metrics [2,3]	**50,953**	50,209	76	213	167	54	58	176	**—**	—	—
Total credit card and other consumer	**$ 104,412**	$ 50,354	$ 12,139	$ 18,675	$ 12,761	$ 5,052	$ 2,691	$ 2,740	**$ 97,009**	$ 96,295	$ 714
Gross charge-offs for the six months ended June 30, 2023	**$ 96**	$ 2	$ 4	$ 41	$ 24	$ 8	$ 5	$ 12	**$ 1,406**	$ 1,359	$ 47

[1] Represents loans that were modified into term loans.
[2] Other internal credit metrics may include delinquency status, geography or other factors.
[3] Direct/indirect consumer includes $50.2 billion of securities-based lending, which is typically supported by highly liquid collateral with market value greater than or equal to the outstanding loan balance and therefore has minimal credit risk at June 30, 2023.

Commercial – Credit Quality Indicators By Vintage [(1)]

(Dollars in millions)	Total as of June 30, 2023	Term Loans: Amortized Cost Basis by Origination Year 2023	2022	2021	2020	2019	Prior	Revolving Loans
U.S. Commercial								
Risk ratings								
Pass rated	**$ 349,832**	$ 20,818	$ 51,623	$ 31,412	$ 15,530	$ 13,882	$ 34,328	$ 182,239
Reservable criticized	**10,964**	100	784	748	494	699	1,768	6,371
Total U.S. Commercial	**$ 360,796**	$ 20,918	$ 52,407	$ 32,160	$ 16,024	$ 14,581	$ 36,096	$ 188,610
Gross charge-offs for the six months ended June 30, 2023	**$ 81**	$ 1	$ 7	$ 20	$ —	$ 1	$ 5	$ 47
Non-U.S. Commercial								
Risk ratings								
Pass rated	**$ 121,523**	$ 8,681	$ 18,591	$ 17,621	$ 3,250	$ 3,326	$ 6,455	$ 63,599
Reservable criticized	**1,995**	—	147	214	231	247	155	1,001
Total Non-U.S. Commercial	**$ 123,518**	$ 8,681	$ 18,738	$ 17,835	$ 3,481	$ 3,573	$ 6,610	$ 64,600
Gross charge-offs for the six months ended June 30, 2023	**$ 31**	$ —	$ —	$ 8	$ 7	$ 1	$ —	$ 15
Commercial Real Estate								
Risk ratings								
Pass rated	**$ 67,398**	$ 2,967	$ 16,461	$ 13,291	$ 4,701	$ 8,125	$ 11,711	$ 10,142
Reservable criticized	**6,892**	65	334	884	556	2,047	2,619	387
Total Commercial Real Estate	**$ 74,290**	$ 3,032	$ 16,795	$ 14,175	$ 5,257	$ 10,172	$ 14,330	$ 10,529
Gross charge-offs for the six months ended June 30, 2023	**$ 95**	$ 2	$ —	$ —	$ —	$ 32	$ 61	$ —
Commercial Lease Financing								
Risk ratings								
Pass rated	**$ 13,285**	$ 1,583	$ 3,183	$ 2,462	$ 1,561	$ 1,342	$ 3,154	$ —
Reservable criticized	**208**	2	21	40	23	34	88	—
Total Commercial Lease Financing	**$ 13,493**	$ 1,585	$ 3,204	$ 2,502	$ 1,584	$ 1,376	$ 3,242	$ —
Gross charge-offs for the six months ended June 30, 2023	**$ —**	$ —	$ —	$ —	$ —	$ —	$ —	$ —
U.S. Small Business Commercial [(2)]								
Risk ratings								
Pass rated	**$ 8,711**	$ 936	$ 1,872	$ 1,734	$ 1,050	$ 833	$ 2,162	$ 124
Reservable criticized	**369**	1	40	67	47	70	141	3
Total U.S. Small Business Commercial	**$ 9,080**	$ 937	$ 1,912	$ 1,801	$ 1,097	$ 903	$ 2,303	$ 127
Gross charge-offs for the six months ended June 30, 2023	**$ 20**	$ —	$ 1	$ 1	$ 10	$ 2	$ 3	$ 3
Total	**$ 581,177**	$ 35,153	$ 93,056	$ 68,473	$ 27,443	$ 30,605	$ 62,581	$ 263,866
Total gross charge-offs for the six months ended June 30, 2023	**$ 227**	$ 3	$ 8	$ 29	$ 17	$ 36	$ 69	$ 65

(1) Excludes $4.1 billion of loans accounted for under the fair value option at June 30, 2023.
(2) Excludes U.S. Small Business Card loans of $9.7 billion. Refreshed FICO scores for this portfolio are $407 million for less than 620; $1.0 billion for greater than or equal to 620 and less than 680; $2.7 billion for greater than or equal to 680 and less than 740; and $5.6 billion greater than or equal to 740. Excludes U.S. Small Business Card loans gross charge-offs of $139 million.

The following tables present certain credit quality indicators for the Corporation's Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments by year of origination, except for revolving loans and revolving loans that were modified into term loans, which are shown on an aggregate basis at December 31, 2022.

Residential Mortgage – Credit Quality Indicators By Vintage

			Term Loans by Origination Year					
(Dollars in millions)		Total as of December 31, 2022	2022	2021	2020	2019	2018	Prior
Residential Mortgage								
Refreshed LTV								
Less than or equal to 90 percent	$	215,713	$ 39,625	$ 81,437	$ 37,228	$ 18,980	$ 5,734	$ 32,709
Greater than 90 percent but less than or equal to 100 percent		1,615	950	530	93	15	8	19
Greater than 100 percent		648	374	169	43	15	8	39
Fully-insured loans		11,694	580	3,667	3,102	949	156	3,240
Total Residential Mortgage	$	229,670	$ 41,529	$ 85,803	$ 40,466	$ 19,959	$ 5,906	$ 36,007
Residential Mortgage								
Refreshed FICO score								
Less than 620	$	2,156	$ 377	$ 518	$ 373	$ 124	$ 84	$ 680
Greater than or equal to 620 and less than 680		4,978	1,011	1,382	840	329	233	1,183
Greater than or equal to 680 and less than 740		25,444	5,411	8,290	4,369	2,187	830	4,357
Greater than or equal to 740		185,398	34,150	71,946	31,782	16,370	4,603	26,547
Fully-insured loans		11,694	580	3,667	3,102	949	156	3,240
Total Residential Mortgage	$	229,670	$ 41,529	$ 85,803	$ 40,466	$ 19,959	$ 5,906	$ 36,007
Gross charge-offs for the year ended December 31, 2022	$	161	$ —	$ 6	$ 5	$ 6	$ 1	$ 143

Home Equity - Credit Quality Indicators

		Total	Home Equity Loans and Reverse Mortgages [1]	Revolving Loans	Revolving Loans Converted to Term Loans
(Dollars in millions)		December 31, 2022			
Home Equity					
Refreshed LTV					
Less than or equal to 90 percent	$	26,395	$ 1,304	$ 19,960	$ 5,131
Greater than 90 percent but less than or equal to 100 percent		62	20	24	18
Greater than 100 percent		106	37	35	34
Total Home Equity	$	26,563	$ 1,361	$ 20,019	$ 5,183
Home Equity					
Refreshed FICO score					
Less than 620	$	683	$ 166	$ 189	$ 328
Greater than or equal to 620 and less than 680		1,190	152	507	531
Greater than or equal to 680 and less than 740		4,321	312	2,747	1,262
Greater than or equal to 740		20,369	731	16,576	3,062
Total Home Equity	$	26,563	$ 1,361	$ 20,019	$ 5,183
Gross charge-offs for the year ended December 31, 2022	$	45	$ 5	$ 24	$ 16

(1) Includes reverse mortgages of $937 million and home equity loans of $424 million, which are no longer originated.

Credit Card and Direct/Indirect Consumer – Credit Quality Indicators By Vintage

	Direct/Indirect								Credit Card		
			Term Loans by Origination Year								
(Dollars in millions)	Total Direct/Indirect as of December 31, 2022	Revolving Loans	2022	2021	2020	2019	2018	Prior	Total Credit Card as of December 31, 2022	Revolving Loans	Revolving Loans Converted to Term Loans [1]
Refreshed FICO score											
Less than 620	$ 847	$ 12	$ 237	$ 301	$ 113	$ 84	$ 43	$ 57	$ 4,056	$ 3,866	$ 190
Greater than or equal to 620 and less than 680	2,521	12	1,108	816	269	150	69	97	10,994	10,805	189
Greater than or equal to 680 and less than 740	8,895	52	4,091	2,730	992	520	214	296	32,186	32,017	169
Greater than or equal to 740	39,679	83	16,663	11,392	5,630	2,992	1,236	1,683	46,185	46,142	43
Other internal credit metrics [2, 3]	54,294	53,404	259	305	70	57	40	159	—	—	—
Total credit card and other consumer	$ 106,236	$ 53,563	$ 22,358	$ 15,544	$ 7,074	$ 3,803	$ 1,602	$ 2,292	$ 93,421	$ 92,830	$ 591
Gross charge-offs for the year ended December 31, 2022	$ 232	$ 7	$ 31	$ 79	$ 34	$ 27	$ 14	$ 40	$ 1,985	$ 1,909	$ 76

[1] Represents TDRs that were modified into term loans.
[2] Other internal credit metrics may include delinquency status, geography or other factors.
[3] Direct/indirect consumer includes $53.4 billion of securities-based lending, which is typically supported by highly liquid collateral with market value greater than or equal to the outstanding loan balance and therefore has minimal credit risk at December 31, 2022.

Commercial – Credit Quality Indicators By Vintage [1]

		Term Loans						
		Amortized Cost Basis by Origination Year						
(Dollars in millions)	Total as of December 31, 2022	2022	2021	2020	2019	2018	Prior	Revolving Loans
U.S. Commercial								
Risk ratings								
Pass rated	$ 348,447	$ 61,200	$ 39,717	$ 18,609	$ 16,566	$ 8,749	$ 30,282	$ 173,324
Reservable criticized	10,034	278	794	697	884	1,202	856	5,323
Total U.S. Commercial	$ 358,481	$ 61,478	$ 40,511	$ 19,306	$ 17,450	$ 9,951	$ 31,138	$ 178,647
Gross charge-offs for the year ended December 31, 2022	$ 151	$ 2	$ 24	$ 24	$ 9	$ 6	$ 13	$ 73
Non-U.S. Commercial								
Risk ratings								
Pass rated	$ 121,890	$ 24,839	$ 19,098	$ 5,183	$ 3,882	$ 2,423	$ 4,697	$ 61,768
Reservable criticized	2,589	45	395	331	325	98	475	920
Total Non-U.S. Commercial	$ 124,479	$ 24,884	$ 19,493	$ 5,514	$ 4,207	$ 2,521	$ 5,172	$ 62,688
Gross charge-offs for the year ended December 31, 2022	$ 41	$ —	$ 3	$ 1	$ —	$ 37	$ —	$ —
Commercial Real Estate								
Risk ratings								
Pass rated	$ 64,619	$ 15,290	$ 13,089	$ 5,756	$ 9,013	$ 4,384	$ 8,606	$ 8,481
Reservable criticized	5,147	11	837	545	1,501	1,151	1,017	85
Total Commercial Real Estate	$ 69,766	$ 15,301	$ 13,926	$ 6,301	$ 10,514	$ 5,535	$ 9,623	$ 8,566
Gross charge-offs for the year ended December 31, 2022	$ 75	$ —	$ —	$ 6	$ —	$ 26	$ 43	$ —
Commercial Lease Financing								
Risk ratings								
Pass rated	$ 13,404	$ 3,255	$ 2,757	$ 1,955	$ 1,578	$ 1,301	$ 2,558	$ —
Reservable criticized	240	9	35	12	71	50	63	—
Total Commercial Lease Financing	$ 13,644	$ 3,264	$ 2,792	$ 1,967	$ 1,649	$ 1,351	$ 2,621	$ —
Gross charge-offs for the year ended December 31, 2022	$ 8	$ —	$ 4	$ —	$ 4	$ —	$ —	$ —
U.S. Small Business Commercial [2]								
Risk ratings								
Pass rated	$ 8,726	$ 1,825	$ 1,953	$ 1,408	$ 864	$ 624	$ 1,925	$ 127
Reservable criticized	329	11	35	48	76	51	105	3
Total U.S. Small Business Commercial	$ 9,055	$ 1,836	$ 1,988	$ 1,456	$ 940	$ 675	$ 2,030	$ 130
Gross charge-offs for the year ended December 31, 2022	$ 31	$ —	$ 1	$ 11	$ 4	$ 1	$ 6	$ 8
Total	$ 575,425	$ 106,763	$ 78,710	$ 34,544	$ 34,760	$ 20,033	$ 50,584	$ 250,031
Total gross charge-offs for the year ended December 31, 2022	$ 306	$ 2	$ 32	$ 42	$ 17	$ 70	$ 62	$ 81

[1] Excludes $5.4 billion of loans accounted for under the fair value option at December 31, 2022.
[2] Excludes U.S. Small Business Card loans of $8.5 billion. Refreshed FICO scores for this portfolio are $297 million for less than 620; $859 million for greater than or equal to 620 and less than 680; $2.4 billion for greater than or equal to 680 and less than 740; and $5.0 billion greater than or equal to 740. Excludes U.S. Small Business Card loans gross charge-offs of $172 million.

During the six months ended June 30, 2023, commercial reservable criticized utilized exposure increased to $21.5 billion at June 30, 2023 from $19.3 billion (to 3.44 percent from 3.12 percent of total commercial reservable utilized exposure) at December 31, 2022, primarily driven by commercial real estate and U.S. Commercial.

Loan Modifications to Borrowers in Financial Difficulty

As part of its credit risk management, the Corporation may modify a loan agreement with a borrower experiencing financial difficulties through a refinancing or restructuring of the borrower's loan agreement (modification programs).

Consumer Real Estate

The following modification programs are offered for consumer real estate loans to borrowers experiencing financial difficulties. These modifications represented 0.19 percent and 0.28 percent of outstanding residential mortgage and home equity loans at June 30, 2023.

Forbearance and Other Payment Plans: Forbearance plans generally consist of the Corporation suspending the borrower's payments for a defined period with those payments then due at the conclusion of the forbearance period. The aging status of a loan is generally frozen when it enters into a forbearance plan. Alternatively, the Corporation may offer the borrower a payment plan, which allows the borrower to repay past due amounts through payments over a defined period. At June 30, 2023, the amortized cost of residential mortgage loans that were modified through these plans during the three and six months ended June 30, 2023 was $276 million and $348 million. The amortized cost of home equity loans that were modified through these plans during the same periods was $41 million and $53 million. The weighted-average duration of residential mortgage loan modifications was approximately 6 months and 8 months for the three and six months ended June 30, 2023. For the same periods, the weighted-average duration for home equity loan modifications was approximately 6 months and 9 months. The total forborne payments for residential mortgage loan modifications was $9 million and $15 million for the three and six months ended June 30, 2023. For the same periods, the total forborne payments for home equity modifications was $3 million and $5 million. If a borrower is unable to fulfill their obligations under the forbearance plans, they may be offered a trial or permanent modification.

Trial Modifications: Trial modification plans generally consist of the Corporation offering a borrower modified loan terms that reduce their contractual payments temporarily over a three-to-four-month trial period. If the customer successfully makes the modified payments during the trial period and formally accepts the modified terms, the modified loan terms become permanent. At June 30, 2023, the amortized cost of residential mortgage loans entering trial modifications during the three and six months ended June 30, 2023 was $27 million and $49 million. The amortized cost of home equity loans entering trial modifications during the same periods was $14 million and $22 million.

Permanent Modifications: Permanent modifications include borrowers that have completed a trial modification and have had their contractual payment terms permanently modified, as well as borrowers that proceed directly to a permanent modification without a trial period. In a permanent modification, the borrower's payment terms are typically modified in more than one manner but generally include a term extension and an interest rate reduction. At times, the permanent modification may also include principal forgiveness and/or a deferral of past due principal and interest amounts to the end of the loan term. The combinations utilized are based on modifying the terms that give the borrower an improved ability to meet the contractual obligations. At June 30, 2023, the amortized cost of residential mortgage loans that were granted a permanent modification during the three and six months ended June 30, 2023 was $44 million and $88 million. The amortized cost of home equity loans that were granted a permanent modification during the same periods was $9 million and $18 million. The term extensions granted for residential mortgage and home equity permanent modifications vary widely and can be up to 30 years, but are mostly in the range of 1 to 20 years for both residential mortgage and home equity loans. The weighted-average term extension of permanent modifications for residential mortgage loans was 10.2 years and 8.6 years for the three and six months ended June 30, 2023, while the weighted-average interest rate reduction was 1.62 percent and 1.57 percent. For the same periods, the weighted-average term extension of permanent modifications for home equity loans was 16.9 years and 15.2 years, while the weighted-average interest rate reduction was 2.96 percent and 2.69 percent. Principal forgiveness and payment deferrals were insignificant for the three and six months ended June 30, 2023.

For consumer real estate borrowers in financial difficulty that received a forbearance, trial or permanent modification, there were no commitments to lend additional funds at June 30, 2023. Borrowers with a home equity line of credit that received a forbearance plan could have all or a portion of their lines reinstated in the future if they cure their payment default and meet certain Bank conditions.

Chapter 7 Discharges: If a borrower's consumer real estate obligation is discharged in a Chapter 7 bankruptcy proceeding, the contractual payment terms of the loan are not modified, although they can no longer be enforced against the individual borrower. The Corporation's ability to collect amounts due on the loan is limited to enforcement against the property through the foreclosure and sale of the collateral. The Corporation will only pursue foreclosure upon default by the borrower, and otherwise will recover pursuant to the loan terms or at the time of a sale. Residential mortgage and home equity loans that were granted a Chapter 7 discharge were insignificant for the three and six months ended June 30, 2023.

The Corporation tracks the performance of modified loans to assess effectiveness of modification programs. Defaults of modified consumer real estate loans since January 1, 2023 were insignificant during the three and six months ended June 30, 2023. The table below provides aging information as of June 30, 2023 for consumer real estate loans modified since January 1, 2023.

Consumer Real Estate - Payment Status of Modifications to Borrowers in Financial Difficulty [1]

	Current	30–89 Days Past Due	90+ Days Past Due	Total
(Dollars in millions)	June 30, 2023			
Residential mortgage	$ 248	$ 105	$ 83	$ 436
Home equity	42	12	17	71
Total	$ 290	$ 117	$ 100	$ 507

[1] Excludes trial modifications and Chapter 7 discharges

Consumer real estate foreclosed properties totaled $97 million and $121 million at June 30, 2023 and December 31, 2022. The carrying value of consumer real estate loans, including fully-insured loans, for which formal foreclosure proceedings were in process at June 30, 2023 and December 31, 2022 was $724 million and $871 million. During the six months ended June 30, 2023 and 2022, the Corporation reclassified $68 million and $99 million of consumer real estate loans to foreclosed properties or, for properties acquired upon foreclosure of certain government-guaranteed loans (principally FHA-insured loans), to other assets. The reclassifications represent non-cash investing activities and, accordingly, are not reflected in the Consolidated Statement of Cash Flows.

Credit Card and Other Consumer

Credit card and other consumer loans are primarily modified by placing the customer on a fixed payment plan with a fixed interest rate. As of June 30, 2023, substantially all payment plans provided to customers had a 60-month term. In certain circumstances, the Corporation will forgive a portion of the outstanding balance if the borrower makes payments up to a set amount. The Corporation makes modifications directly with borrowers for loans held by the Corporation (internal programs) as well as through third-party renegotiation agencies that provide solutions to customers' entire unsecured debt structures (external programs). The June 30, 2023 amortized cost of credit card and other consumer loans that were modified through these programs during the three and six months ended June 30, 2023 was $168 million and $303 million. The financial effect of modifications resulted in a weighted-average interest rate reduction of 19.02 percent and 18.82 percent and principal forgiveness of $14 million and $25 million during the three and six months ended June 30, 2023.

The Corporation tracks the performance of modified loans to assess the effectiveness of modification programs. Defaults of modified credit card and other consumer loans since January 1, 2023 were insignificant during the three and six months ended June 30, 2023. Of the $303 million in modified credit card and other consumer loans to borrowers experiencing financial difficulty as of June 30, 2023, $237 million were current, $35 million were 30-89 days past due, and $31 million were greater than 90 days past due. These modifications represented 0.15 percent of outstanding credit card and other consumer loans at June 30, 2023.

Commercial Loans

Modifications of loans to commercial borrowers experiencing financial difficulty are designed to reduce the Corporation's loss exposure while providing borrowers with an opportunity to work through financial difficulties, often to avoid foreclosure or bankruptcy. Each modification is unique, reflects the borrower's individual circumstances and is designed to benefit the borrower while mitigating the Corporation's risk exposure. Commercial modifications are primarily term extensions and payment forbearances. Payment forbearances involve the Bank forbearing its contractual right to collect certain payments or payment in full (maturity forbearance) for a defined period of time. Reductions in interest rates and principal forgiveness occur infrequently for commercial borrowers. Principal forgiveness may occur in connection with foreclosure, short sales or other settlement agreements, leading to termination or sale of the loan. The table below provides the ending amortized cost of commercial loans modified during the three and six months ended June 30, 2023.

Commercial Loans - Modifications to Borrowers in Financial Difficulty

	Term Extension	Forbearances	Total
(Dollars in millions)	Three Months Ended June 30, 2023		
U.S. Commercial	$ 325	$ 5	$ 330
Non-U.S. Commercial	121	—	121
Commercial Real Estate	266	96	362
Total	$ 712	$ 101	$ 813
	Six Months Ended June 30, 2023		
U.S. Commercial	$ 503	$ 64	$ 567
Non-U.S. Commercial	132	—	132
Commercial Real Estate	519	96	615
Total	$ 1,154	$ 160	$ 1,314

Term extensions granted increased the weighted-average life of the impacted loans by 1.6 years at both the three and six months ended June 30, 2023. The weighted-average duration of loan payments deferred under the Corporation's commercial loan forbearance program was 11 months for both the three and six months ended June 30, 2023. The deferral period for loan payments can vary, but are mostly in the range of 9 months to 24 months. Modifications of loans to troubled borrowers for

Commercial Lease Financing and U.S. Small Business Commercial were not significant during the three and six months ended June 30, 2023.

The Corporation tracks the performance of modified loans to assess effectiveness of modification programs. Defaults of modified Commercial loans since January 1, 2023 were insignificant during the six months ended June 30, 2023. The table below provides aging information as of June 30, 2023 for commercial loans modified since January 1, 2023.

Commercial - Payment Status of Modified Loans to Borrowers in Financial Difficulty

(Dollars in millions)	Current	30–89 Days Past Due	90+ Days Past Due	Total	% of Total Class of Financing Receivable
	June 30, 2023				
U.S. Commercial	$ 497	$ 41	$ 29	$ 567	0.16 %
Non-U.S. Commercial	132	—	—	132	0.11
Commercial Real Estate	567	—	48	615	0.83
Total	$ 1,196	$ 41	$ 77	$ 1,314	0.24

For the six months ended June 30, 2023, the Corporation had commitments to lend $687 million to commercial borrowers experiencing financial difficulty whose loans were modified during the period.

Prior-period Troubled Debt Restructuring Disclosures

Prior to adopting the new accounting standard on loan modifications, the Corporation accounted for modifications of loans to borrowers experiencing financial difficulty as TDRs, when the modification resulted in a concession. The following discussion reflects loans that were considered TDRs prior to January 1, 2023. For more information on TDR accounting policies, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Consumer Real Estate

The table below presents the June 30, 2022 unpaid principal balance, carrying value, and average pre- and post-modification interest rates of consumer real estate loans that were modified in TDRs during the three and six months ended June 30, 2022. The following Consumer Real Estate portfolio segment tables include loans that were initially classified as TDRs during the period and also loans that had previously been classified as TDRs and were modified again during the period. Binding trial modifications are classified as TDRs when the trial offer is made and continue to be classified as TDRs regardless of whether the borrower enters into a permanent modification.

At December 31, 2022, remaining commitments to lend additional funds to debtors whose terms have been modified in a consumer real estate TDR were not significant.

Consumer Real Estate – TDRs Entered into During the Three and Six Months Ended June 30, 2022

(Dollars in millions)	Unpaid Principal Balance	Carrying Value	Pre-Modification Interest Rate	Post-Modification Interest Rate [1]	Unpaid Principal Balance	Carrying Value	Pre-Modification Interest Rate	Post-Modification Interest Rate [1]
	Three Months Ended June 30, 2022				Six Months Ended June 30, 2022			
Residential mortgage	$ 540	$ 489	3.47 %	3.38 %	$ 858	$ 774	3.53 %	3.35 %
Home equity	129	110	3.80	3.89	170	140	3.77	3.84
Total	$ 669	$ 599	3.53	3.48	$ 1,028	$ 914	3.57	3.43

[1] The post-modification interest rate reflects the interest rate applicable only to permanently completed modifications, which exclude loans that are in a trial modification period.

The table below presents the June 30, 2022 carrying value for consumer real estate loans that were modified in a TDR during the three and six months ended June 30, 2022, by type of modification.

Consumer Real Estate – Modification Programs

(Dollars in millions)	TDRs Entered into During the Three Months Ended June 30, 2022	TDRs Entered into During the Six Months Ended June 30, 2022
Modifications under proprietary programs	$ 536	$ 816
Loans discharged in Chapter 7 bankruptcy [1]	4	8
Trial modifications	59	90
Total modifications	$ 599	$ 914

[1] Includes loans discharged in Chapter 7 bankruptcy with no change in repayment terms that are classified as TDRs.

The table below presents the carrying value of consumer real estate loans that entered into payment default during the three and six months ended June 30, 2022 that were modified in a TDR during the 12 months preceding payment default. A payment default for consumer real estate TDRs is recognized when a borrower has missed three monthly payments (not necessarily consecutively) since modification.

Consumer Real Estate – TDRs Entering Payment Default that were Modified During the Preceding 12 Months

(Dollars in millions)	Three Months Ended June 30, 2022	Six Months Ended June 30, 2022
Modifications under proprietary programs	$ 32	$ 72
Loans discharged in Chapter 7 bankruptcy (1)	—	1
Trial modifications (2)	7	11
Total modifications	$ 39	$ 84

(1) Includes loans discharged in Chapter 7 bankruptcy with no change in repayment terms that are classified as TDRs.
(2) Includes trial modification offers to which the customer did not respond.

Credit Card and Other Consumer

The table below provides information on the Corporation's Credit Card and Other Consumer TDR portfolio including the June 30, 2022 unpaid principal balance, carrying value, and average pre- and post-modification interest rates of loans that were modified in TDRs during the three and six months ended June 30, 2022.

Credit Card and Other Consumer – TDRs Entered into During the Three and Six Months Ended June 30, 2022

(Dollars in millions)	Unpaid Principal Balance	Carrying Value (1)	Pre-Modification Interest Rate	Post-Modification Interest Rate	Unpaid Principal Balance	Carrying Value (1)	Pre-Modification Interest Rate	Post-Modification Interest Rate
	Three Months Ended June 30, 2022				Six Months Ended June 30, 2022			
Credit card	$ 65	$ 69	19.77 %	3.78 %	$ 127	$ 132	19.60 %	3.76 %
Direct/Indirect consumer	3	2	5.41	5.41	5	5	5.62	5.62
Total	$ 68	$ 71	19.37	3.83	$ 132	$ 137	19.09	3.83

(1) Includes accrued interest and fees.

The table below presents the June 30, 2022 carrying value for Credit Card and Other Consumer loans that were modified in a TDR during the three and six months ended June 30, 2022 by program type.

Credit Card and Other Consumer – TDRs by Program Type (1)

(Dollars in millions)	TDRs Entered into During the Three Months Ended June 30, 2022	TDRs Entered into During the Six Months Ended June 30, 2022
Internal programs	$ 58	$ 112
External programs	10	20
Other	3	5
Total	$ 71	$ 137

(1) Includes accrued interest and fees.

Credit card and other consumer loans are deemed to be in payment default during the quarter in which a borrower misses the second of two consecutive payments. Payment defaults are one of the factors considered when projecting future cash flows in the calculation of the allowance for loan and lease losses for credit card and other consumer. Based on historical experience, the Corporation estimates that 10 percent of new credit card TDRs and 17 percent of new direct/indirect consumer TDRs may be in payment default within 12 months after modification.

Commercial Loans

During the three and six months ended June 30, 2022, the carrying value of the Corporation's commercial loans that were modified as TDRs was $796 million and $1.3 billion. At December 31, 2022, the Corporation had commitments to lend $358 million to commercial borrowers whose loans were classified as TDRs. The balance of commercial TDRs in payment default was $105 million at December 31, 2022.

Loans Held-for-sale

The Corporation had LHFS of $6.8 billion and $6.9 billion at June 30, 2023 and December 31, 2022. Cash and non-cash proceeds from sales and paydowns of loans originally classified as LHFS were $7.4 billion and $21.4 billion for the six months ended June 30, 2023 and 2022. Cash used for originations and purchases of LHFS totaled $7.3 billion and $11.4 billion for the six months ended June 30, 2023 and 2022. Also included were non-cash net transfers into LHFS of $457 million and $1.6 billion for the six months ended June 30, 2023 and 2022.

Accrued Interest Receivable

Accrued interest receivable for loans and leases and loans held-for-sale at June 30, 2023 and December 31, 2022 was $4.1 billion and $3.8 billion and is reported in customer and other receivables on the Consolidated Balance Sheet.

Outstanding credit card loan balances include unpaid principal, interest and fees. Credit card loans are not classified as nonperforming but are charged off no later than the end of the month in which the account becomes 180 days past due, within 60 days after receipt of notification of death or bankruptcy, or upon confirmation of fraud. During the three and six months ended June 30, 2023, the Corporation reversed $138 million and $256 million of interest and fee income against the income statement line item in which it was originally recorded upon charge-off of the principal balance of the loan compared to $80 million and $160 million for the same periods in 2022.

For the outstanding residential mortgage, home equity, direct/indirect consumer and commercial loan balances classified as nonperforming during the three and six months ended June 30, 2023 and 2022, interest and fee income reversed at the time the loans were classified as nonperforming was not significant. For more information on the Corporation's nonperforming loan policies, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Allowance for Credit Losses

The allowance for credit losses is estimated using quantitative and qualitative methods that consider a variety of factors, such as historical loss experience, the current credit quality of the portfolio and an economic outlook over the life of the loan. Qualitative reserves cover losses that are expected but, in the Corporation's assessment, may not be adequately reflected in the quantitative methods or the economic assumptions. The Corporation incorporates forward-looking information through the use of several macroeconomic scenarios in determining the weighted economic outlook over the forecasted life of the assets. These scenarios include key macroeconomic variables such as gross domestic product, unemployment rate, real estate prices and corporate bond spreads. The scenarios that are chosen each quarter and the weighting given to each scenario depend on a variety of factors including recent economic events, leading economic indicators, internal and third-party economist views, and industry trends. For more information on the Corporation's credit loss accounting policies including the allowance for credit losses, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

The June 30, 2023 estimate for allowance for credit losses was based on various economic scenarios, including a baseline scenario derived from consensus estimates, which represents a mild recessionary environment, an adverse scenario reflecting an extended moderate recession, a downside scenario reflecting persistent inflation and interest rates above the baseline scenario, a tail risk scenario similar to the severely adverse scenario used in stress testing and an upside scenario that considers the potential for improvement above the baseline scenario. The overall weighted economic outlook of the above scenarios is estimating a recessionary environment in 2023, which is relatively consistent with the weighted economic outlook estimated as of December 31, 2022. The weighted economic outlook assumes that the U.S. average unemployment rate will be above four and a half percent by the fourth quarter of 2023 and will remain above five percent through the fourth quarter of 2024. Additionally, in this economic outlook, U.S. real gross domestic product is forecasted to contract at 0.2 percent and grow at 1.0 percent year-over-year in the fourth quarters of 2023 and 2024. For comparison, as of December 31, 2022, the weighted economic outlook for the U.S. average unemployment rate was forecasted to be just above five and a half percent by the fourth quarter of 2023 and slowly decline tofive percent by the fourth quarter of 2024, and U.S. real gross domestic product was forecasted to contract at 0.4 percent and grow at 1.2 percent year-over-year in the fourth quarters of 2023 and 2024.

The allowance for credit losses increased $116 million from December 31, 2022 to $14.3 billion at June 30, 2023, which included a $505 million reserve increase related to the consumer portfolio and a $389 million reserve decrease related to the commercial portfolio. The increase in the allowance reflected a reserve build in the Corporation's consumer portfolio primarily due to credit card loan growth, partially offset by a reserve release in the Corporation's commercial portfolio primarily driven by certain improved macroeconomic conditions. The allowance also includes the impact of the accounting change to remove the recognition and measurement guidance on TDRs, which reduced the allowance for credit losses by $243 million on January 1, 2023. The change in the allowance for credit losses was comprised of a net increase of $268 million in the allowance for loan and lease losses and a decrease of $152 million in the reserve for unfunded lending commitments. The provision for credit losses increased $602 million to $1.1 billion, and $1.5 billion to $2.1 billion for the three and six months ended June 30, 2023 compared to the same periods in 2022. The provision for credit losses for the current-year periods was driven by the Corporation's consumer portfolio primarily due to credit card loan growth and asset quality, partially offset by certain improved macroeconomic conditions that primarily benefited the Corporation's commercial portfolio. For the same periods in the prior year, the provision for credit losses was primarily driven by loan growth and a dampened macroeconomic outlook, partially offset by asset quality improvement and reduced COVID-19 pandemic uncertainties. In addition, the six-month period in the prior year was also driven by a reserve build related to Russian exposure.

Outstanding loans and leases excluding loans accounted for under the fair value option increased $6.9 billion during the six months ended June 30, 2023 primarily driven by commercial loans, which increased $7.0 billion driven by broad-based growth, and consumer loans, which remained flat as credit card growth was offset by declines in securities-based lending.

The changes in the allowance for credit losses, including net charge-offs and provision for loan and lease losses, are detailed in the following table.

(Dollars in millions)	Consumer Real Estate	Credit Card and Other Consumer	Commercial	Total
	Three Months Ended June 30, 2023			
Allowance for loan and lease losses, April 1	**$ 403**	**$ 6,958**	**$ 5,153**	**$ 12,514**
Loans and leases charged off	**(15)**	**(924)**	**(186)**	**(1,125)**
Recoveries of loans and leases previously charged off	**29**	**190**	**37**	**256**
Net charge-offs	**14**	**(734)**	**(149)**	**(869)**
Provision for loan and lease losses	**8**	**1,099**	**202**	**1,309**
Other	**2**	**—**	**(6)**	**(4)**
Allowance for loan and lease losses, June 30	**427**	**7,323**	**5,200**	**12,950**
Reserve for unfunded lending commitments, April 1	**93**	**—**	**1,344**	**1,437**
Provision for unfunded lending commitments	**(7)**	**—**	**(43)**	**(50)**
Other	**—**	**—**	**1**	**1**
Reserve for unfunded lending commitments, June 30	**86**	**—**	**1,302**	**1,388**
Allowance for credit losses, June 30	**$ 513**	**$ 7,323**	**$ 6,502**	**$ 14,338**
	Three Months Ended June 30, 2022			
Allowance for loan and lease losses, April 1	$ 473	$ 6,242	$ 5,389	$ 12,104
Loans and leases charged off	(160)	(692)	(92)	(944)
Recoveries of loans and leases previously charged off	98	229	46	373
Net charge-offs	(62)	(463)	(46)	(571)
Provision for loan and lease losses	(16)	438	19	441
Other	1	(1)	(1)	(1)
Allowance for loan and lease losses, June 30	396	6,216	5,361	11,973
Reserve for unfunded lending commitments, April 1	91	—	1,288	1,379
Provision for unfunded lending commitments	(12)	—	94	82
Reserve for unfunded lending commitments, June 30	79	—	1,382	1,461
Allowance for credit losses, June 30	$ 475	$ 6,216	$ 6,743	$ 13,434
(Dollars in millions)	**Six Months Ended June 30, 2023**			
Allowance for loan and lease losses, December 31	**$ 420**	**$ 6,817**	**$ 5,445**	**$ 12,682**
January 1, 2023 adoption of credit loss standard	**(67)**	**(109)**	**(67)**	**(243)**
Allowance for loan and lease losses, January 1	**353**	**6,708**	**5,378**	**12,439**
Loans and leases charged off	**(29)**	**(1,785)**	**(366)**	**(2,180)**
Recoveries of loans and leases previously charged off	**54**	**387**	**63**	**504**
Net charge-offs	**25**	**(1,398)**	**(303)**	**(1,676)**
Provision for loan and lease losses	**42**	**2,012**	**155**	**2,209**
Other	**7**	**1**	**(30)**	**(22)**
Allowance for loan and lease losses, June 30	**427**	**7,323**	**5,200**	**12,950**
Reserve for unfunded lending commitments, January 1	**94**	**—**	**1,446**	**1,540**
Provision for unfunded lending commitments	**(8)**	**—**	**(145)**	**(153)**
Other	**—**	**—**	**1**	**1**
Reserve for unfunded lending commitments, June 30	**86**	**—**	**1,302**	**1,388**
Allowance for credit losses, June 30	**$ 513**	**$ 7,323**	**$ 6,502**	**$ 14,338**
	Six Months Ended June 30, 2022			
Allowance for loan and lease losses, January 1	$ 557	$ 6,476	$ 5,354	$ 12,387
Loans and leases charged off	(183)	(1,311)	(184)	(1,678)
Recoveries of loans and leases previously charged off	161	468	86	715
Net charge-offs	(22)	(843)	(98)	(963)
Provision for loan and lease losses	(141)	581	109	549
Other	2	2	(4)	—
Allowance for loan and lease losses, June 30	396	6,216	5,361	11,973
Reserve for unfunded lending commitments, January 1	96	—	1,360	1,456
Provision for unfunded lending commitments	(18)	—	22	4
Other	1	—	—	1
Reserve for unfunded lending commitments, June 30	79	—	1,382	1,461
Allowance for credit losses, June 30	$ 475	$ 6,216	$ 6,743	$ 13,434

NOTE 6 Securitizations and Other Variable Interest Entities

The Corporation utilizes VIEs in the ordinary course of business to support its own and its customers' financing and investing needs. The tables in this Note present the assets and liabilities of consolidated and unconsolidated VIEs at June 30, 2023 and December 31, 2022 in situations where the Corporation has continuing involvement with transferred assets or if the Corporation otherwise has a variable interest in the VIE. The tables also present the Corporation's maximum loss exposure at June 30, 2023 and December 31, 2022 resulting from its involvement with consolidated VIEs and unconsolidated VIEs in which the Corporation holds a variable interest. For more information on the Corporation's use of VIEs and related maximum loss exposure, see *Note 1 – Summary of Significant Accounting Principles* and *Note 6 – Securitizations and Other Variable Interest Entities* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

The Corporation invests in ABS issued by third-party VIEs with which it has no other form of involvement and enters into certain commercial lending arrangements that may also incorporate the use of VIEs, for example to hold collateral.

These securities and loans are included in *Note 4 – Securities* or *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses*. In addition, the Corporation has used VIEs in connection with its funding activities.

The Corporation did not provide financial support to consolidated or unconsolidated VIEs during the three and six months ended June 30, 2023 or the year ended December 31, 2022 that it was not previously contractually required to provide, nor does it intend to do so.

The Corporation had liquidity commitments, including written put options and collateral value guarantees, with certain unconsolidated VIEs of $967 million and $978 million at June 30, 2023 and December 31, 2022.

First-lien Mortgage Securitizations

As part of its mortgage banking activities, the Corporation securitizes a portion of the first-lien residential mortgage loans it originates or purchases from third parties. Except as described in *Note 10 – Commitments and Contingencies*, the Corporation does not provide guarantees or recourse to the securitization trusts other than standard representations and warranties.

The table below summarizes select information related to first-lien mortgage securitizations for the three and six months ended June 30, 2023 and 2022.

First-lien Mortgage Securitizations

	Residential Mortgage - Agency				Commercial Mortgage			
	Three Months Ended June 30		Six Months Ended June 30		Three Months Ended June 30		Six Months Ended June 30	
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Proceeds from loan sales [1]	**$ 908**	$ 1,419	**$ 2,255**	$ 3,741	**$ 455**	$ 1,988	**$ 597**	$ 4,416
Gains on securitizations [2]	**1**	—	**(4)**	8	**(1)**	13	**2**	26
Repurchases from securitization trusts [3]	**5**	9	**14**	25	**—**	—	**—**	—

(1) The Corporation transfers residential mortgage loans to securitizations sponsored primarily by the government-sponsored enterprises or Government National Mortgage Association (GNMA) in the normal course of business and primarily receives residential mortgage-backed securities in exchange. Substantially all of these securities are classified as Level 2 within the fair value hierarchy and are typically sold shortly after receipt.

(2) A majority of the first-lien residential mortgage loans securitized are initially classified as LHFS and accounted for under the fair value option. Gains recognized on these LHFS prior to securitization, which totaled $7 million and $17 million net of hedges, during the three and six months ended June 30, 2023 compared to $10 million and $30 million for the same periods in 2022, are not included in the table above.

(3) The Corporation may have the option to repurchase delinquent loans out of securitization trusts, which reduces the amount of servicing advances it is required to make. The Corporation may also repurchase loans from securitization trusts to perform modifications. Repurchased loans include FHA-insured mortgages collateralizing GNMA securities.

The Corporation recognizes consumer MSRs from the sale or securitization of consumer real estate loans. The unpaid principal balance of loans serviced for investors, including residential mortgage and home equity loans, totaled $95.9 billion and $105.8 billion at June 30, 2023 and 2022. Servicing fee and ancillary fee income on serviced loans was $63 million and $132 million during the three and six months ended June 30, 2023 compared to $74 million and $144 million for the same periods in 2022. Servicing advances on serviced loans, including loans serviced for others and loans held for investment, were $1.4 billion and $1.6 billion at June 30, 2023 and December 31, 2022. For more information on MSRs, see *Note 14 – Fair Value Measurements*.

During the three and six months ended June 30, 2023, the Corporation deconsolidated agency residential mortgage securitization trusts with total assets of $296 million and $624 million compared to $36 million and $563 million for the same periods in 2022.

The following table summarizes select information related to first-lien mortgage securitization trusts in which the Corporation held a variable interest at June 30, 2023 and December 31, 2022.

First-lien Mortgage VIEs

(Dollars in millions)	Residential Mortgage								Commercial Mortgage	
			Non-agency							
	Agency		Prime		Subprime		Alt-A			
	June 30 2023	December 31 2022	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022
Unconsolidated VIEs										
Maximum loss exposure (1)	**$ 8,549**	$ 9,112	**$ 88**	$ 91	**$ 680**	$ 735	**$ 6**	$ 28	**$ 1,460**	$ 1,594
On-balance sheet assets										
Senior securities:										
Trading account assets	**$ 230**	$ 232	**$ 4**	$ 3	**$ 22**	$ 25	**$ 4**	$ 26	**$ 24**	$ 91
Debt securities carried at fair value	**2,687**	3,027	**—**	—	**360**	410	**—**	—	**—**	—
Held-to-maturity securities	**5,632**	5,853	**—**	—	**—**	—	**—**	—	**1,263**	1,268
All other assets	**—**	—	**3**	3	**21**	25	**2**	2	**52**	101
Total retained positions	**$ 8,549**	$ 9,112	**$ 7**	$ 6	**$ 403**	$ 460	**$ 6**	$ 28	**$ 1,339**	$ 1,460
Principal balance outstanding (2)	**$ 78,522**	$ 81,644	**$ 3,737**	$ 3,973	**$ 4,772**	$ 5,034	**$ 10,943**	$ 11,568	**$ 83,386**	$ 85,101
Consolidated VIEs										
Maximum loss exposure (1)	**$ 1,909**	$ 1,735	**$ —**	$ —	**$ —**	$ 78	**$ —**	$ —	**$ —**	$ —
On-balance sheet assets										
Trading account assets	**$ 1,909**	$ 1,735	**$ —**	$ —	**$ —**	$ 78	**$ —**	$ —	**$ —**	$ —
Loans and leases, net	**—**	—	**—**	—	**—**	—	**—**	—	**—**	—
Total assets	**$ 1,909**	$ 1,735	**$ —**	$ —	**$ —**	$ 78	**$ —**	$ —	**$ —**	$ —
Total liabilities	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —

(1) Maximum loss exposure includes obligations under loss-sharing reinsurance and other arrangements for non-agency residential mortgage and commercial mortgage securitizations, but excludes the reserve for representations and warranties obligations and corporate guarantees and also excludes servicing advances and other servicing rights and obligations. For more information, see *Note 10 – Commitments and Contingencies* and *Note 14 – Fair Value Measurements*.
(2) Principal balance outstanding includes loans where the Corporation was the transferor to securitization VIEs with which it has continuing involvement, which may include servicing the loans.

Other Asset-backed Securitizations

The table below summarizes select information related to home equity, credit card and other asset-backed VIEs in which the Corporation held a variable interest at June 30, 2023 and December 31, 2022.

Home Equity Loan, Credit Card and Other Asset-backed VIEs

(Dollars in millions)	Home Equity (1)		Credit Card (2)		Resecuritization Trusts		Municipal Bond Trusts	
	June 30 2023	December 31 2022	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022	**June 30 2023**	December 31 2022
Unconsolidated VIEs								
Maximum loss exposure	**$ 9**	$ 119	**$ —**	$ —	**$ 4,507**	$ 4,243	**$ 2,246**	$ 2,537
On-balance sheet assets								
Securities (3):								
Trading account assets	**$ —**	$ —	**$ —**	$ —	**$ 1,151**	$ 456	**$ —**	$ —
Debt securities carried at fair value	**1**	1	**—**	—	**975**	1,259	**—**	—
Held-to-maturity securities	**—**	—	**—**	—	**2,381**	2,528	**—**	—
Total retained positions	**$ 1**	$ 1	**$ —**	$ —	**$ 4,507**	$ 4,243	**$ —**	$ —
Total assets of VIEs	**$ 277**	$ 326	**$ —**	$ —	**$ 15,248**	$ 12,255	**$ 2,722**	$ 3,016
Consolidated VIEs								
Maximum loss exposure	**$ 14**	$ 32	**$ 8,196**	$ 9,555	**$ 140**	$ 551	**$ 1,952**	$ —
On-balance sheet assets								
Trading account assets	**$ —**	$ —	**$ —**	$ —	**$ 347**	$ 650	**$ 1,952**	$ —
Loans and leases	**37**	97	**14,188**	14,555	**—**	—	**—**	—
Allowance for loan and lease losses	**8**	12	**(803)**	(808)	**—**	—	**—**	—
All other assets	**1**	2	**64**	68	**—**	—	**—**	—
Total assets	**$ 46**	$ 111	**$ 13,449**	$ 13,815	**$ 347**	$ 650	**$ 1,952**	$ —
On-balance sheet liabilities								
Short-term borrowings	**$ —**	$ —	**$ —**	$ —	**$ —**	$ —	**$ 1,854**	$ —
Long-term debt	**32**	79	**5,243**	4,247	**207**	99	**—**	—
All other liabilities	**—**	—	**10**	13	**—**	—	**—**	—
Total liabilities	**$ 32**	$ 79	**$ 5,253**	$ 4,260	**$ 207**	$ 99	**$ 1,854**	$ —

(1) For unconsolidated home equity loan VIEs, the maximum loss exposure includes outstanding trust certificates issued by trusts in rapid amortization, net of recorded reserves. For both consolidated and unconsolidated home equity loan VIEs, the maximum loss exposure excludes the reserve for representations and warranties obligations and corporate guarantees. For more information, see *Note 10 – Commitments and Contingencies*.
(2) At June 30, 2023 and December 31, 2022, loans and leases in the consolidated credit card trust included $3.7 billion and $3.3 billion of seller's interest.
(3) The retained senior securities were valued using quoted market prices or observable market inputs (Level 2 of the fair value hierarchy).

Home Equity Loans

The Corporation retains interests, primarily senior securities, in home equity securitization trusts to which it transferred home equity loans. In addition, the Corporation may be obligated to provide subordinate funding to the trusts during a rapid amortization event. This obligation is included in the maximum loss exposure in the preceding table. The charges that will ultimately be recorded as a result of the rapid amortization events depend on the undrawn portion of the home equity lines of credit, performance of the loans, the amount of subsequent draws and the timing of related cash flows.

Credit Card Securitizations

The Corporation securitizes originated and purchased credit card loans. The Corporation's continuing involvement with the securitization trust includes servicing the receivables, retaining an undivided interest (seller's interest) in the receivables, and holding certain retained interests, including subordinate interests in accrued interest and fees on the securitized receivables and cash reserve accounts.

During both the six months ended June 30, 2023 and 2022, $1.0 billion of new senior debt securities were issued to third-party investors from the credit card securitization trust.

At June 30, 2023 and December 31, 2022, the Corporation held subordinate securities issued by the credit card securitization trust with a notional principal amount of $4.9 billion and $6.7 billion. These securities serve as a form of credit enhancement to the senior debt securities and have a stated interest rate of zero percent. During both the six months ended June 30, 2023 and 2022, $161 million of subordinate securities were issued by the credit card securitization trust.

Resecuritization Trusts

The Corporation transfers securities, typically MBS, into resecuritization VIEs generally at the request of customers seeking securities with specific characteristics. Generally, there are no significant ongoing activities performed in a resecuritization trust, and no single investor has the unilateral ability to liquidate the trust.

The Corporation resecuritized $4.1 billion and $5.8 billion of securities during the three and six months ended June 30, 2023 compared to $4.6 billion and $14.2 billion for the same periods in 2022. Securities transferred into resecuritization VIEs were measured at fair value with changes in fair value recorded in market making and similar activities prior to the resecuritization and, accordingly, no gain or loss on sale was recorded. During the three and six months ended June 30, 2023 and 2022, resecuritization proceeds included securities with an initial fair value of $478 million and $1.1 billion compared to $1.0 billion and $1.7 billion, of which substantially all of the securities were classified as trading account assets for both periods. Substantially all of the trading account securities carried at fair value were categorized as Level 2 within the fair value hierarchy.

Municipal Bond Trusts

The Corporation administers municipal bond trusts that hold highly-rated, long-term, fixed-rate municipal bonds. The trusts obtain financing by issuing floating-rate trust certificates that reprice on a weekly or other short-term basis to third-party investors.

The Corporation's liquidity commitments to unconsolidated municipal bond trusts, including those for which the Corporation was transferor, totaled $2.2 billion and $2.5 billion at June 30, 2023 and December 31, 2022. The weighted-average remaining life of bonds held in the trusts at June 30, 2023 was 11.5 years. There were no significant write-downs or downgrades of assets or issuers during the six months ended June 30, 2023 and 2022.

Other Variable Interest Entities

The table below summarizes select information related to other VIEs in which the Corporation held a variable interest at June 30, 2023 and December 31, 2022.

Other VIEs

	Consolidated	Unconsolidated	Total	Consolidated	Unconsolidated [1]	Total [1]
(Dollars in millions)	**June 30, 2023**			December 31, 2022		
Maximum loss exposure	**$ 1,879**	**$ 48,322**	**$ 50,201**	$ 2,286	$ 47,477	$ 49,763
On-balance sheet assets						
Trading account assets	**$ 402**	**$ 2,098**	**$ 2,500**	$ 353	$ 2,187	$ 2,540
Debt securities carried at fair value	**—**	**157**	**157**	—	473	473
Loans and leases	**1,659**	**14,533**	**16,192**	2,086	14,243	16,329
Allowance for loan and lease losses	**(1)**	**(77)**	**(78)**	(1)	(99)	(100)
All other assets	**61**	**31,082**	**31,143**	46	30,221	30,267
Total	**$ 2,121**	**$ 47,793**	**$ 49,914**	$ 2,484	$ 47,025	$ 49,509
On-balance sheet liabilities						
Short-term borrowings	**$ 23**	**$ —**	**$ 23**	$ 42	$ —	$ 42
Long-term debt	**219**	**—**	**219**	156	—	156
All other liabilities	**—**	**7,575**	**7,575**	—	7,318	7,318
Total	**$ 242**	**$ 7,575**	**$ 7,817**	$ 198	$ 7,318	$ 7,516

(1) Prior period has been revised to include unconsolidated CLOs.

Customer VIEs

Customer VIEs include credit-linked, equity-linked and commodity-linked note VIEs, repackaging VIEs and asset acquisition VIEs, which are typically created on behalf of customers who wish to obtain market or credit exposure to a specific company, index, commodity or financial instrument.

The Corporation's involvement in the VIE is limited to its loss exposure. The Corporation's maximum loss exposure to consolidated and unconsolidated customer VIEs totaled $935 million and $914 million at June 30, 2023 and December 31, 2022, including the notional amount of derivatives to which the Corporation is a counterparty, net of losses previously recorded, and the Corporation's investment, if any, in securities issued by the VIEs. Total assets of the consolidated and unconsolidated VIEs were $1.6 billion and $1.5 billion at June 30, 2023 and December 31, 2022.

CDO and CLO VIEs

The Corporation holds investments in unconsolidated CDO and CLO VIEs, that hold diversified pools of fixed-income securities, typically corporate debt, ABS or non-investment grade corporate loans, which are funded by multiple tranches of debt instruments and equity securities issued by the VIEs. The VIEs are managed by third-party portfolio managers. The Corporation held $16.2 billion and $16.3 billion of loans and securities issued by CDO and CLO VIEs at June 30, 2023 and December 31, 2022. The Corporation's loss exposure is limited to its loan and debt security holdings and the notional amount of any derivatives to which the Corporation is a counterparty. The Corporation's maximum loss exposure to consolidated and unconsolidated CDOs and CLOs totaled $16.3 billion at both June 30, 2023 and December 31, 2022, which is insignificant to the total assets of the VIEs.

Investment VIEs

The Corporation sponsors, invests in or provides financing, which may be in connection with the sale of assets, to a variety of investment VIEs that hold loans, real estate, debt securities or other financial instruments and are designed to provide the desired investment profile to investors or the Corporation. At June 30, 2023 and December 31, 2022, the Corporation's consolidated investment VIEs had total assets of $463 million and $854 million. The Corporation also held investments in unconsolidated VIEs with total assets of $18.8 billion and $12.2 billion at June 30, 2023 and December 31, 2022. The Corporation's maximum loss exposure associated with both consolidated and unconsolidated investment VIEs totaled $2.3 billion and $2.4 billion at June 30, 2023 and December 31, 2022 comprised primarily of on-balance sheet assets less non-recourse liabilities.

Leveraged Lease Trusts

The Corporation's net investment in consolidated leveraged lease trusts totaled $1.2 billion at both June 30, 2023 and December 31, 2022. The trusts hold long-lived equipment such as rail cars, power generation and distribution equipment, and commercial aircraft. The Corporation structures the trusts and holds a significant residual interest. The net investment represents the Corporation's maximum loss exposure to the trusts in the unlikely event that the leveraged lease investments become worthless. Debt issued by the leveraged lease trusts is non-recourse to the Corporation.

Tax Credit VIEs

The Corporation holds equity investments in unconsolidated limited partnerships and similar entities that construct, own and operate affordable housing, renewable energy and certain other projects. The total assets of these unconsolidated tax credit VIEs were $77.1 billion and $74.8 billion as of June 30, 2023 and December 31, 2022. An unrelated third party is typically the general partner or managing member and has control over the significant activities of the VIE. As an investor, tax credits associated with the investments in these entities are allocated to the Corporation, as provided by the U.S. Internal Revenue Code and related regulations, and are recognized as income tax benefits in the Corporation's Consolidated Statement of Income in the year they are earned, which varies based on the type of investments. Tax credits from environmental, social and governance (ESG) investments in affordable housing are recognized ratably over a term of up to 10 years, and tax credits from renewable energy investments are recognized either at inception for transactions electing Investment Tax Credits (ITCs) or as energy is produced for transactions electing Production Tax Credits (PTCs), which is generally up to a 10-year time period. The volume and types of investments held by the Corporation will influence the amount of tax credits recognized each period.

The Corporation's equity investments in affordable housing and other projects totaled $15.1 billion and $14.7 billion at June 30, 2023 and December 31, 2022, which included unfunded capital contributions of $7.2 billion and $6.9 billion and are probable to be paid over the next five years. The Corporation may be asked to invest additional amounts to support a troubled affordable housing project. Such additional investments have not been and are not expected to be significant. During the three and six months ended June 30, 2023, the Corporation recognized tax credits and other tax benefits related to affordable housing and other tax credit equity investments of $517 million and $1.0 billion compared to $423 million and $842 million for the same periods in 2022, and reported pretax losses in other income of $383 million and $756 million compared to $345 million and $682 million for the same periods in 2022. The Corporation's equity investments in renewable energy totaled $14.0 billion and $13.9 billion at June 30, 2023 and December 31, 2022. In addition, the Corporation had unfunded capital contributions for renewable energy investments of $6.1 billion and $1.9 billion at June 30, 2023 and December 31, 2022, which are contingent on various conditions precedent to funding over the next two years. The Corporation's risk of loss is generally mitigated by policies requiring the project to qualify for the expected tax credits prior to making its investment. During the three and six months ended June 30, 2023, the Corporation recognized tax credits and other tax benefits related to renewable energy equity investments of $1.1 billion and $2.1 billion compared to $621 million and $1.5 billion for the same periods in 2022 and reported pretax losses in other income of $567 million and $1.1 billion compared to $502 million and $1.0 billion for the same periods in 2022. The Corporation may also enter into power purchase agreements with renewable energy tax credit entities. The maximum loss exposure for tax credit VIEs was $29.1 billion and $28.8 billion at June 30, 2023 and December 31, 2022.

NOTE 7 Goodwill and Intangible Assets

Goodwill

The table below presents goodwill balances by business segment at June 30, 2023 and December 31, 2022. The reporting units utilized for goodwill impairment testing are the operating segments or one level below. The Corporation completed its annual goodwill impairment test as of June 30, 2023 using a quantitative assessment for all applicable reporting units. Based on the results of the annual goodwill impairment test, the Corporation determined there was no impairment. For more information regarding the nature of and accounting for the Corporation's annual goodwill impairment testing, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Goodwill

(Dollars in millions)	June 30 2023	December 31 2022
Consumer Banking	**$ 30,137**	$ 30,137
Global Wealth & Investment Management	**9,677**	9,677
Global Banking	**24,026**	24,026
Global Markets	**5,181**	5,182
Total goodwill	**$ 69,021**	$ 69,022

Intangible Assets

At June 30, 2023 and December 31, 2022, the net carrying value of intangible assets was $2.0 billion and 2.1 billion. At both June 30, 2023 and December 31, 2022, intangible assets included $1.6 billion of intangible assets associated with trade names, substantially all of which had an indefinite life and, accordingly, are not being amortized. Amortization of intangibles expense was $20 million for both the three months ended June 30, 2023 and 2022 and $39 million for both the six months ended June 30, 2023 and 2022.

NOTE 8 Leases

The Corporation enters into both lessor and lessee arrangements. For more information on lease accounting, see *Note 1 – Summary of Significant Accounting Principles* and *Note 8 – Leases* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K. For more information on lease financing receivables, see *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses*.

Lessor Arrangements

The Corporation's lessor arrangements primarily consist of operating, sales-type and direct financing leases for equipment. Lease agreements may include options to renew and for the lessee to purchase the leased equipment at the end of the lease term.

The table below presents the net investment in sales-type and direct financing leases at June 30, 2023 and December 31, 2022.

Net Investment [(1)]

(Dollars in millions)	June 30 2023	December 31 2022
Lease receivables	**$ 15,098**	$ 15,123
Unguaranteed residuals	**2,157**	2,143
Total net investment in sales-type and direct financing leases	**$ 17,255**	$ 17,266

(1) In certain cases, the Corporation obtains third-party residual value insurance to reduce its residual asset risk. The carrying value of residual assets with third-party residual value insurance for at least a portion of the asset value was $6.5 billion at both June 30, 2023 and December 31, 2022.

The table below presents lease income for the three and six months ended June 30, 2023 and 2022.

Lease Income

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Sales-type and direct financing leases	**$ 181**	$ 137	**$ 353**	$ 279
Operating leases	**234**	231	**472**	463
Total lease income	**$ 415**	$ 368	**$ 825**	$ 742

Lessee Arrangements

The Corporation's lessee arrangements predominantly consist of operating leases for premises and equipment; the Corporation's financing leases are not significant.

The table below provides information on the right-of-use assets and lease liabilities at June 30, 2023 and December 31, 2022.

Lessee Arrangements

(Dollars in millions)	June 30 2023	December 31 2022
Right-of-use asset	**$ 9,348**	$ 9,755
Lease liabilities	**9,973**	10,359

NOTE 9 Securities Financing Agreements, Collateral and Restricted Cash

The Corporation enters into securities financing agreements which include securities borrowed or purchased under agreements to resell and securities loaned or sold under agreements to repurchase. These financing agreements (also referred to as "matched-book transactions") are to accommodate customers, obtain securities to cover short positions and finance inventory positions. The Corporation elects to account for certain securities financing agreements under the fair value option. For more information on the fair value option, see *Note 15 – Fair Value Option*.

Offsetting of Securities Financing Agreements

The Securities Financing Agreements table presents securities financing agreements included on the Consolidated Balance Sheet in federal funds sold and securities borrowed or purchased under agreements to resell, and in federal funds purchased and securities loaned or sold under agreements to repurchase at June 30, 2023 and December 31, 2022. Balances are presented on a gross basis, prior to the application of counterparty netting. Gross assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements. For more information on the offsetting of derivatives, see *Note 3 – Derivatives*. For more information on the securities financing agreements and the offsetting of securities financing transactions, see *Note 10 – Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Securities Financing Agreements

(Dollars in millions)	Gross Assets/Liabilities [1]	Amounts Offset	Net Balance Sheet Amount	Financial Instruments [2]	Net Assets/Liabilities
			June 30, 2023		
Securities borrowed or purchased under agreements to resell [3]	**$ 619,137**	**$ (342,856)**	**$ 276,281**	**$ (250,061)**	**$ 26,220**
Securities loaned or sold under agreements to repurchase	**$ 631,483**	**$ (342,856)**	**$ 288,627**	**$ (263,434)**	**$ 25,193**
Other [4]	**10,088**	**—**	**10,088**	**(10,088)**	**—**
Total	**$ 641,571**	**$ (342,856)**	**$ 298,715**	**$ (273,522)**	**$ 25,193**
			December 31, 2022		
Securities borrowed or purchased under agreements to resell [3]	$ 597,847	$ (330,273)	$ 267,574	$ (240,120)	$ 27,454
Securities loaned or sold under agreements to repurchase	$ 525,908	$ (330,273)	$ 195,635	$ (183,265)	$ 12,370
Other [4]	8,427	—	8,427	(8,427)	—
Total	$ 534,335	$ (330,273)	$ 204,062	$ (191,692)	$ 12,370

(1) Includes activity where uncertainty exists as to the enforceability of certain master netting agreements under bankruptcy laws in some countries or industries.
(2) Includes securities collateral received or pledged under repurchase or securities lending agreements where there is a legally enforceable master netting agreement. These amounts are not offset on the Consolidated Balance Sheet, but are shown as a reduction to derive a net asset or liability. Securities collateral received or pledged where the legal enforceability of the master netting agreements is uncertain is excluded from the table.
(3) Excludes repurchase activity of $10.0 billion and $8.7 billion reported in loans and leases on the Consolidated Balance Sheet at June 30, 2023 and December 31, 2022.
(4) Balance is reported in accrued expenses and other liabilities on the Consolidated Balance Sheet and relates to transactions where the Corporation acts as the lender in a securities lending agreement and receives securities that can be pledged as collateral or sold. In these transactions, the Corporation recognizes an asset at fair value, representing the securities received, and a liability, representing the obligation to return those securities.

Repurchase Agreements and Securities Loaned Transactions Accounted for as Secured Borrowings

The following tables present securities sold under agreements to repurchase and securities loaned by remaining contractual term to maturity and class of collateral pledged. Included in "Other" are transactions where the Corporation acts as the lender in a securities lending agreement and receives securities that can be pledged as collateral or sold. Certain agreements contain a right to substitute collateral and/or terminate the agreement prior to maturity at the option of the Corporation or the counterparty. Such agreements are included in the table below based on the remaining contractual term to maturity. For more information on collateral requirements, see *Note 10 – Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Remaining Contractual Maturity

(Dollars in millions)	Overnight and Continuous	30 Days or Less	After 30 Days Through 90 Days	Greater than 90 Days [1]	Total
			June 30, 2023		
Securities sold under agreements to repurchase	**$ 263,441**	**$ 204,840**	**$ 58,881**	**$ 25,851**	**$ 553,013**
Securities loaned	**73,488**	**106**	**805**	**4,071**	**78,470**
Other	**10,088**	**—**	**—**	**—**	**10,088**
Total	**$ 347,017**	**$ 204,946**	**$ 59,686**	**$ 29,922**	**$ 641,571**
			December 31, 2022		
Securities sold under agreements to repurchase	$ 200,087	$ 181,632	$ 41,666	$ 30,107	$ 453,492
Securities loaned	66,909	288	1,139	4,080	72,416
Other	8,427	—	—	—	8,427
Total	$ 275,423	$ 181,920	$ 42,805	$ 34,187	$ 534,335

(1) No agreements have maturities greater than four years.

Class of Collateral Pledged

(Dollars in millions)	Securities Sold Under Agreements to Repurchase	Securities Loaned	Other	Total
	June 30, 2023			
U.S. government and agency securities	$ 280,511	$ —	$ —	$ 280,511
Corporate securities, trading loans and other	22,037	1,096	25	23,158
Equity securities	11,486	77,374	10,063	98,923
Non-U.S. sovereign debt	234,692	—	—	234,692
Mortgage trading loans and ABS	4,287	—	—	4,287
Total	**$ 553,013**	**$ 78,470**	**$ 10,088**	**$ 641,571**
	December 31, 2022			
U.S. government and agency securities	$ 193,005	$ 18	$ —	$ 193,023
Corporate securities, trading loans and other	14,345	2,896	317	17,558
Equity securities	10,249	69,432	8,110	87,791
Non-U.S. sovereign debt	232,171	70	—	232,241
Mortgage trading loans and ABS	3,722	—	—	3,722
Total	$ 453,492	$ 72,416	$ 8,427	$ 534,335

Collateral

The Corporation accepts securities and loans as collateral that it is permitted by contract or practice to sell or repledge. At June 30, 2023 and December 31, 2022, the fair value of this collateral was $857.1 billion and $827.6 billion, of which $844.9 billion and $764.1 billion was sold or repledged. The primary source of this collateral is securities borrowed or purchased under agreements to resell. For more information on collateral, see *Note 10 – Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Restricted Cash

At June 30, 2023 and December 31, 2022, the Corporation held restricted cash included within cash and cash equivalents on the Consolidated Balance Sheet of $5.5 billion and $7.6 billion, predominantly related to cash segregated in compliance with securities regulations and cash held on deposit with central banks to meet reserve requirements.

NOTE 10 Commitments and Contingencies

In the normal course of business, the Corporation enters into a number of off-balance sheet commitments. These commitments expose the Corporation to varying degrees of credit and market risk and are subject to the same credit and market risk limitation reviews as those instruments recorded on the Consolidated Balance Sheet. For more information on commitments and contingencies, see *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Credit Extension Commitments

The Corporation enters into commitments to extend credit such as loan commitments, standby letters of credit (SBLCs) and commercial letters of credit to meet the financing needs of its customers. The following table includes the notional amount of unfunded legally binding lending commitments net of amounts distributed (i.e., syndicated or participated) to other financial institutions. The distributed amounts were $10.4 billion at both June 30, 2023 and December 31, 2022. The carrying value of the Corporation's credit extension commitments at June 30, 2023 and December 31, 2022, excluding commitments accounted for under the fair value option, was $1.4 billion and $1.6 billion, which predominantly related to the reserve for unfunded lending commitments. The carrying value of these commitments is classified in accrued expenses and other liabilities on the Consolidated Balance Sheet.

Legally binding commitments to extend credit generally have specified rates and maturities. Certain of these commitments have adverse change clauses that help to protect the Corporation against deterioration in the borrower's ability to pay.

The following table includes the notional amount of commitments of $2.6 billion and $3.0 billion at June 30, 2023 and December 31, 2022 that are accounted for under the fair value option. However, the table excludes the cumulative net fair value for these commitments of $75 million and $110 million at June 30, 2023 and December 31, 2022, which is classified in accrued expenses and other liabilities. For more information regarding the Corporation's loan commitments accounted for under the fair value option, see *Note 15 – Fair Value Option.*

Credit Extension Commitments

(Dollars in millions)	Expire in One Year or Less	Expire After One Year Through Three Years	Expire After Three Years Through Five Years	Expire After Five Years	Total
			June 30, 2023		
Notional amount of credit extension commitments					
Loan commitments [1]	**$ 118,272**	**$ 172,755**	**$ 215,299**	**$ 14,347**	**$ 520,673**
Home equity lines of credit	**1,912**	**8,717**	**11,560**	**22,449**	**44,638**
Standby letters of credit and financial guarantees [2]	**21,139**	**9,542**	**3,233**	**565**	**34,479**
Letters of credit	**827**	**23**	**254**	**38**	**1,142**
Other commitments [3]	**5**	**47**	**124**	**1,052**	**1,228**
Legally binding commitments	**142,155**	**191,084**	**230,470**	**38,451**	**602,160**
Credit card lines [4]	**437,097**	**—**	**—**	**—**	**437,097**
Total credit extension commitments	**$ 579,252**	**$ 191,084**	**$ 230,470**	**$ 38,451**	**$ 1,039,257**
			December 31, 2022		
Notional amount of credit extension commitments					
Loan commitments [1]	$ 113,962	$ 162,890	$ 221,374	$ 13,667	$ 511,893
Home equity lines of credit	1,479	7,230	11,578	22,154	42,441
Standby letters of credit and financial guarantees [2]	22,565	9,237	2,787	628	35,217
Letters of credit	853	46	52	49	1,000
Other commitments [3]	5	93	71	1,103	1,272
Legally binding commitments	138,864	179,496	235,862	37,601	591,823
Credit card lines [4]	419,144	—	—	—	419,144
Total credit extension commitments	$ 558,008	$ 179,496	$ 235,862	$ 37,601	$ 1,010,967

(1) At June 30, 2023 and December 31, 2022, $3.3 billion and $2.6 billion of these loan commitments were held in the form of a security.
(2) The notional amounts of SBLCs and financial guarantees classified as investment grade and non-investment grade based on the credit quality of the underlying reference name within the instrument were $24.3 billion and $9.5 billion at June 30, 2023, and $25.1 billion and $9.5 billion at December 31, 2022. Amounts in the table include consumer SBLCs of $599 million and $575 million at June 30, 2023 and December 31, 2022.
(3) Primarily includes second-loss positions on lease-end residual value guarantees.
(4) Includes business card unused lines of credit.

Other Commitments

At June 30, 2023 and December 31, 2022, the Corporation had commitments to purchase loans (e.g., residential mortgage and commercial real estate) of $719 million and $636 million, which upon settlement will be included in trading account assets, loans or LHFS, and commitments to purchase commercial loans of $350 million and $294 million, which upon settlement will be included in trading account assets.

At June 30, 2023 and December 31, 2022, the Corporation had commitments to enter into resale and forward-dated resale and securities borrowing agreements of $132.0 billion and $92.0 billion, and commitments to enter into forward-dated repurchase and securities lending agreements of $77.5 billion and $57.8 billion. A significant portion of these commitments will expire within the next 12 months.

At June 30, 2023 and December 31, 2022, the Corporation had a commitment to originate or purchase up to $4.1 billion and $3.7 billion on a rolling 12-month basis, of auto loans and leases from a strategic partner. This commitment extends through November 2026 and can be terminated with 12 months prior notice.

At June 30, 2023 and December 31, 2022, the Corporation had unfunded equity investment commitments of $527 million and $571 million.

Other Guarantees

Bank-owned Life Insurance Book Value Protection

The Corporation sells products that offer book value protection to insurance carriers who offer group life insurance policies to corporations, primarily banks. At both June 30, 2023 and December 31, 2022, the notional amount of these guarantees totaled $4.3 billion. At June 30, 2023 and December 31, 2022, the Corporation's maximum exposure related to these guarantees totaled $634 million and $632 million, with estimated maturity dates between 2033 and 2039.

Merchant Services

The Corporation in its role as merchant acquirer or as a sponsor of other merchant acquirers may be held liable for any reversed charges that cannot be collected from the merchants due to, among other things, merchant fraud or insolvency. If charges are properly reversed after a purchase and cannot be collected from either the merchants or merchant acquirers, the Corporation may be held liable for these reversed charges. The ability to reverse a charge is primarily governed by the applicable payment network rules and regulations, which include, but are not limited to, the type of charge, type of payment used and time limits. The total amount of transactions subject to reversal under payment network rules and regulations processed for the preceding six-month period, which was approximately $436 billion, is an estimate of the Corporation's maximum potential exposure as of June 30, 2023. The Corporation's risk in this area primarily relates to circumstances where a cardholder has purchased goods or services for future delivery. The Corporation mitigates this risk by requiring cash deposits, guarantees, letters of credit or other types of collateral from certain merchants. The Corporation's reserves for contingent losses and the losses incurred related to the merchant processing activity were not significant.

Representations and Warranties Obligations and Corporate Guarantees

For more information on representations and warranties obligations and corporate guarantees, see *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

The reserve for representations and warranties obligations and corporate guarantees was $622 million and $612 million at June 30, 2023 and December 31, 2022 and is included in accrued expenses and other liabilities on the Consolidated

Balance Sheet, and the related provision is included in other income in the Consolidated Statement of Income. The representations and warranties reserve represents the Corporation's best estimate of probable incurred losses, is based on its experience in previous negotiations, and is subject to judgment, a variety of assumptions, and known or unknown uncertainties. Future representations and warranties losses may occur in excess of the amounts recorded for these exposures; however, the Corporation does not expect such amounts to be material to the Corporation's financial condition and liquidity. See Litigation and Regulatory Matters below for the Corporation's combined range of possible loss in excess of the reserve for representations and warranties and the accrued liability for litigation.

Fixed Income Clearing Corporation Sponsored Member Repo Program

The Corporation acts as a sponsoring member in a repo program whereby the Corporation clears certain eligible resale and repurchase agreements through the Government Securities Division of the Fixed Income Clearing Corporation on behalf of clients that are sponsored members in accordance with the Fixed Income Clearing Corporation's rules. As part of this program, the Corporation guarantees the payment and performance of its sponsored members to the Fixed Income Clearing Corporation. The Corporation's guarantee obligation is secured by a security interest in cash or high-quality securities collateral placed by clients with the clearinghouse and therefore, the potential for the Corporation to incur significant losses under this arrangement is remote. The Corporation's maximum potential exposure, without taking into consideration the related collateral, was $48.7 billion and $59.6 billion at June 30, 2023 and December 31, 2022.

Other Guarantees

In the normal course of business, the Corporation periodically guarantees the obligations of its affiliates in a variety of transactions including ISDA-related transactions and non-ISDA related transactions such as commodities trading, repurchase agreements, prime brokerage agreements and other transactions.

Guarantees of Certain Long-term Debt

The Corporation, as the parent company, fully and unconditionally guarantees the securities issued by BofA Finance LLC, a consolidated finance subsidiary of the Corporation, and effectively provides for the full and unconditional guarantee of trust securities and capital securities issued by certain statutory trust companies that are 100 percent owned finance subsidiaries of the Corporation.

Other Contingencies

On May 11, 2023, the Federal Deposit Insurance Corporation (FDIC) issued a proposed rule that would impose a special assessment to recover the loss to the Deposit Insurance Fund (DIF) arising from the protection of uninsured depositors of Silicon Valley Bank and Signature Bank associated with their closures, and the systemic risk determination announced by the FDIC on March 12, 2023. Under the proposed rule, the assessment base for the special assessment would be equal to an insured depository institution's estimated uninsured deposits reported as of December 31, 2022, adjusted to exclude the first $5 billion in estimated uninsured deposits. The FDIC would collect the special assessment over eight quarterly periods, beginning with the first quarterly assessment period of 2024. In addition, the special assessment would be subject to adjustment as the estimated loss to the DIF is updated. While the timing and amount of any expense recognition are unknown until the proposed rule is finalized, if the final rule is issued as proposed, the estimated impact of the special assessment on the Corporation would be a noninterest expense of approximately $1.9 billion that would be recognized upon finalization of the rule.

Litigation and Regulatory Matters

The following disclosures supplement the disclosure in *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K (the prior commitments and contingencies disclosure).

In the ordinary course of business, the Corporation and its subsidiaries are routinely defendants in or parties to many pending and threatened legal, regulatory and governmental actions and proceedings. In view of the inherent difficulty of predicting the outcome of such matters, particularly where the claimants seek very large or indeterminate damages or where the matters present novel legal theories or involve a large number of parties, the Corporation generally cannot predict the eventual outcome of the pending matters, timing of the ultimate resolution of these matters, or eventual loss, fines or penalties related to each pending matter.

As a matter develops, the Corporation, in conjunction with any outside counsel handling the matter, evaluates whether such matter presents a loss contingency that is probable and estimable, and, for the matters disclosed below and in the prior commitments and contingencies disclosure, whether a loss in excess of any accrued liability is reasonably possible in future periods. Once the loss contingency is deemed to be both probable and estimable, the Corporation will establish an accrued liability and record a corresponding amount of litigation-related expense. The Corporation continues to monitor the matter for further developments that could affect the amount of the accrued liability that has been previously established. Excluding expenses of internal and external legal service providers, litigation and regulatory investigation-related expense of $276 million and $365 million was recognized for the three and six months ended June 30, 2023 compared to $498 million and $604 million for the same periods in 2022.

For any matter disclosed in this Note and in the prior commitments and contingencies disclosure for which a loss in future periods is reasonably possible and estimable (whether in excess of an accrued liability or where there is no accrued liability) and for representations and warranties exposures, the Corporation's estimated range of possible loss is $0 to $0.8 billion in excess of the accrued liability, if any, as of June 30, 2023.

The accrued liability and estimated range of possible loss are based upon currently available information and subject to significant judgment, a variety of assumptions and known and unknown uncertainties. The matters underlying the accrued liability and estimated range of possible loss are unpredictable and may change from time to time, and actual losses may vary significantly from the current estimate and accrual. The estimated range of possible loss does not represent the Corporation's maximum loss exposure.

Information is provided below and in the prior commitments and contingencies disclosure regarding the nature of the litigation and, where specified, associated claimed damages. Based on current knowledge, and taking into account accrued liabilities, management does not believe that loss contingencies arising from pending matters, including the matters described below and in the prior commitments and contingencies disclosure, will have a material adverse effect on the consolidated financial condition or liquidity of the Corporation. However, in light of the significant judgment, variety of assumptions and uncertainties involved in those matters, some of which are beyond the Corporation's control, and the very large or indeterminate damages sought in some of those matters, an adverse outcome in one or more of those matters could be material to the Corporation's business or results of operations for any particular reporting period, or cause significant reputational harm.

Deposit Insurance Assessment

On April 10, 2023, the magistrate judge issued a report and recommendation (the Report) for resolving the parties' pending summary judgment motions. The Report recommends granting the FDIC motion for summary judgment on BANA's statutory liability for the unpaid assessments, subject to BANA's statute of limitations defenses to assessments for the quarters ended March 31, 2012 through March 31, 2013, on which the Report recommends that relevant issues should be resolved at trial. The Report also recommends denying BANA's counterclaims challenging the adoption of the relevant assessment regulations and granting BANA's motion for summary judgment on the FDIC's claims for unjust enrichment and disgorgement. The Report has been submitted to the district court judge for consideration, and the parties have filed objections to the recommendations in the Report.

Representment Non-Sufficient Fund Fees

On July 11, 2023, it was announced that BANA agreed to settle two separate proceedings with the Office of the Comptroller of the Currency (OCC) and Consumer Financial Protection Bureau (CFPB) related to BANA's assessing overdraft or insufficient funds fees each time a merchant resubmitted a transaction or check for payment after it had been declined due to insufficient funds (Representment Fees). Without admitting or denying the findings, BANA consented to orders requiring it to pay penalties of $60 million to each of the OCC and CFPB. Under the CFPB Consent Order, among other things, BANA also consented to refund at least $80.4 million to customers who were assessed Representment Fees between September 1, 2018 to February 18, 2022.

Credit Card Sales and Marketing Practices

On July 11, 2023, it was announced that BANA agreed to a settlement with the CFPB related to online advertisements concerning bonuses linked to rewards credit cards and failure to provide those bonuses to certain consumers, and applying for and opening credit cards for consumers without their consent and obtaining credit reports for those consumers. Without admitting or denying the findings, BANA agreed to the entry of a Consent Order requiring payment of a $30 million penalty and certain undertakings concerning consumer redress.

Unemployment Insurance Prepaid Cards

BANA has been named as a defendant in a number of putative class action, mass action, and individual lawsuits in multiple states related to its administration of prepaid debit cards to distribute unemployment and other state benefits. These lawsuits generally assert claims for monetary damages and injunctive relief. Class action and mass action lawsuits related to the California program, the largest program administered by BANA measured by total benefits and number of participants, have been consolidated into a multidistrict litigation (MDL) in the U.S. District Court for the Southern District of California. On May 25, 2023, the court dismissed certain of the claims in the MDL while allowing others to proceed, and plaintiffs subsequently filed an amended complaint. BANA filed a partial motion to dismiss certain of the remaining claims in the amended complaint in the MDL, which is currently pending.

NOTE 11 Shareholders' Equity

Common Stock

Declared Quarterly Cash Dividends on Common Stock [(1)]

Declaration Date	Record Date	Payment Date	Dividend Per Share
July 19, 2023	September 1, 2023	September 29, 2023	$ 0.24
April 26, 2023	June 2, 2023	June 30, 2023	0.22
February 1, 2023	March 3, 2023	March 31, 2023	0.22

(1) In 2023, and through July 31, 2023.

During the three and six months ended June 30, 2023, the Corporation repurchased and retired 19 million and 86 million shares of common stock, which reduced shareholders' equity by $550 million and $2.8 billion.

During the six months ended June 30, 2023, in connection with employee stock plans, the Corporation issued 69 million shares of its common stock and, to satisfy tax withholding obligations, repurchased 26 million shares of its common stock. At June 30, 2023, the Corporation had reserved 499 million unissued shares of common stock for future issuances under employee stock plans, convertible notes and preferred stock.

On July 19, 2023, the Board of Directors declared a quarterly common stock dividend of $0.24 per share.

Preferred Stock

During the three months ended June 30, 2023 and March 31, 2023, the Corporation declared $306 million and $505 million of cash dividends on preferred stock, or a total of $811 million for the six months ended June 30, 2023. For more information on the Corporation's preferred stock, including liquidation preference, dividend requirements and redemption period, see *Note 13 – Shareholders' Equity* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

NOTE 12 Accumulated Other Comprehensive Income (Loss)

The table below presents the changes in accumulated OCI after-tax for the six months ended June 30, 2023 and 2022.

(Dollars in millions)	Debt Securities	Debit Valuation Adjustments	Derivatives	Employee Benefit Plans	Foreign Currency	Total
Balance, December 31, 2021	$ 3,045	$ (1,636)	$ (1,880)	$ (3,642)	$ (991)	$ (5,104)
Net change	(5,269)	836	(7,187)	60	(10)	(11,570)
Balance, June 30, 2022	$ (2,224)	$ (800)	$ (9,067)	$ (3,582)	$ (1,001)	$ (16,674)
Balance, December 31, 2022	$ (2,983)	$ (881)	$ (11,935)	$ (4,309)	$ (1,048)	$ (21,156)
Net change	**723**	**(394)**	**49**	**19**	**17**	**414**
Balance, June 30, 2023	**$ (2,260)**	**$ (1,275)**	**$ (11,886)**	**$ (4,290)**	**$ (1,031)**	**$ (20,742)**

The table below presents the net change in fair value recorded in accumulated OCI, net realized gains and losses reclassified into earnings and other changes for each component of OCI pre- and after-tax for the six months ended June 30, 2023 and 2022.

	Pretax	Tax effect	After-tax	Pretax	Tax effect	After-tax
	Six Months Ended June 30					
(Dollars in millions)	2023			2022		
Debt securities:						
Net increase (decrease) in fair value	**$ 557**	**$ (137)**	**$ 420**	$ (6,972)	$ 1,719	$ (5,253)
Net realized (gains) losses reclassified into earnings [1]	**404**	**(101)**	**303**	(22)	6	(16)
Net change	**961**	**(238)**	**723**	(6,994)	1,725	(5,269)
Debit valuation adjustments:						
Net increase (decrease) in fair value	**(526)**	**129**	**(397)**	1,100	(267)	833
Net realized (gains) losses reclassified into earnings [1]	**4**	**(1)**	**3**	3	—	3
Net change	**(522)**	**128**	**(394)**	1,103	(267)	836
Derivatives:						
Net increase (decrease) in fair value	**(280)**	**73**	**(207)**	(9,621)	2,397	(7,224)
Reclassifications into earnings:						
Net interest income	**352**	**(88)**	**264**	70	(18)	52
Compensation and benefits expense	**(11)**	**3**	**(8)**	(19)	4	(15)
Net realized (gains) losses reclassified into earnings	**341**	**(85)**	**256**	51	(14)	37
Net change	**61**	**(12)**	**49**	(9,570)	2,383	(7,187)
Employee benefit plans:						
Net actuarial losses and other reclassified into earnings [2]	**27**	**(8)**	**19**	89	(29)	60
Net change	**27**	**(8)**	**19**	89	(29)	60
Foreign currency:						
Net increase (decrease) in fair value	**(97)**	**114**	**17**	407	(417)	(10)
Net realized (gains) losses reclassified into earnings [1]	**(1)**	**1**	**—**	—	—	—
Net change	**(98)**	**115**	**17**	407	(417)	(10)
Total other comprehensive income (loss)	**$ 429**	**$ (15)**	**$ 414**	$ (14,965)	$ 3,395	$ (11,570)

(1) Reclassifications of pretax debt securities, DVA and foreign currency (gains) losses are recorded in other income in the Consolidated Statement of Income.
(2) Reclassifications of pretax employee benefit plan costs are recorded in other general operating expense in the Consolidated Statement of Income.

NOTE 13 Earnings Per Common Share

The calculation of earnings per common share (EPS) and diluted EPS for the three and six months ended June 30, 2023 and 2022 is presented below. For more information on the calculation of EPS, see *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

	Three Months Ended June 30		Six Months Ended June 30	
(In millions, except per share information)	**2023**	2022	**2023**	2022
Earnings per common share				
Net income	**$ 7,408**	$ 6,247	**$ 15,569**	$ 13,314
Preferred stock dividends	**(306)**	(315)	**(811)**	(782)
Net income applicable to common shareholders	**$ 7,102**	$ 5,932	**$ 14,758**	$ 12,532
Average common shares issued and outstanding	**8,040.9**	8,121.6	**8,053.5**	8,129.3
Earnings per common share	**$ 0.88**	$ 0.73	**$ 1.83**	$ 1.54
Diluted earnings per common share				
Net income applicable to common shareholders	**$ 7,102**	$ 5,932	**$ 14,758**	$ 12,532
Add preferred stock dividends due to assumed conversions	**—**	—	**111**	—
Net income allocated to common shareholders	**$ 7,102**	$ 5,932	**$ 14,869**	$ 12,532
Average common shares issued and outstanding	**8,040.9**	8,121.6	**8,053.5**	8,129.3
Dilutive potential common shares [1]	**39.8**	41.5	**109.1**	52.9
Total diluted average common shares issued and outstanding	**8,080.7**	8,163.1	**8,162.6**	8,182.2
Diluted earnings per common share	**$ 0.88**	$ 0.73	**$ 1.82**	$ 1.53

(1) Includes incremental dilutive shares from preferred stock, restricted stock units, restricted stock and warrants.

For the six months ended June 30, 2023, 62 million average dilutive potential common shares associated with the Series L preferred stock were included in the diluted share count under the "if-converted" method, whereas they were antidilutive for the three months ended June 30, 2023 and the three and six months ended June 30, 2022.

NOTE 14 Fair Value Measurements

Under applicable accounting standards, fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Corporation determines the fair values of its financial instruments under applicable accounting standards and conducts a review of fair value hierarchy classifications on a quarterly basis. Transfers into or out of fair value hierarchy classifications are made if the significant inputs used in the financial models measuring the fair values of the assets and liabilities become unobservable or observable in the current marketplace. During the six months ended June 30, 2023, there were no changes to valuation approaches or techniques that had, or are expected to have, a material impact on the Corporation's consolidated financial position or results of operations.

For more information regarding the fair value hierarchy, how the Corporation measures fair value and valuation techniques, see *Note 1 – Summary of Significant Accounting Principles* and *Note 20 – Fair Value Measurements* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K. The Corporation accounts for certain financial instruments under the fair value option. For more information, see *Note 15 – Fair Value Option*.

Recurring Fair Value

Assets and liabilities carried at fair value on a recurring basis at June 30, 2023 and December 31, 2022, including financial instruments that the Corporation accounts for under the fair value option, are summarized in the following tables.

(Dollars in millions)	June 30, 2023				
	Fair Value Measurements				
	Level 1	Level 2	Level 3	Netting Adjustments [1]	Assets/Liabilities at Fair Value
Assets					
Time deposits placed and other short-term investments	$ 902	$ —	$ —	$ —	$ 902
Federal funds sold and securities borrowed or purchased under agreements to resell	—	415,470	7	(263,396)	152,081
Trading account assets:					
U.S. Treasury and government agencies	67,763	3,029	—	—	70,792
Corporate securities, trading loans and other	—	41,933	2,100	—	44,033
Equity securities	70,741	39,420	159	—	110,320
Non-U.S. sovereign debt	10,290	29,499	568	—	40,357
Mortgage trading loans, MBS and ABS:					
U.S. government-sponsored agency guaranteed	—	35,727	11	—	35,738
Mortgage trading loans, ABS and other MBS	—	8,938	1,222	—	10,160
Total trading account assets [2]	148,794	158,546	4,060	—	311,400
Derivative assets	16,130	358,083	4,371	(332,109)	46,475
AFS debt securities:					
U.S. Treasury and government agencies	70,442	916	—	—	71,358
Mortgage-backed securities:					
Agency	—	22,153	—	—	22,153
Agency-collateralized mortgage obligations	—	1,803	—	—	1,803
Non-agency residential	—	111	288	—	399
Commercial	—	6,481	—	—	6,481
Non-U.S. securities	877	14,347	184	—	15,408
Other taxable securities	—	3,773	—	—	3,773
Tax-exempt securities	—	10,579	51	—	10,630
Total AFS debt securities	71,319	60,163	523	—	132,005
Other debt securities carried at fair value:					
U.S. Treasury and government agencies	824	—	—	—	824
Non-agency residential MBS	—	208	88	—	296
Non-U.S. and other securities	1,844	7,071	—	—	8,915
Total other debt securities carried at fair value	2,668	7,279	88	—	10,035
Loans and leases	—	4,180	147	—	4,327
Loans held-for-sale	—	1,875	188	—	2,063
Other assets [3]	6,965	1,254	1,809	—	10,028
Total assets [4]	$ 246,778	$ 1,006,850	$ 11,193	$ (595,505)	$ 669,316
Liabilities					
Interest-bearing deposits in U.S. offices	$ —	$ 379	$ —	$ —	$ 379
Federal funds purchased and securities loaned or sold under agreements to repurchase	—	478,387	—	(263,396)	214,991
Trading account liabilities:					
U.S. Treasury and government agencies	13,523	3	—	—	13,526
Equity securities	50,888	4,240	—	—	55,128
Non-U.S. sovereign debt	12,034	9,465	—	—	21,499
Corporate securities and other	—	7,616	49	—	7,665
Total trading account liabilities	76,445	21,324	49	—	97,818
Derivative liabilities	16,428	355,700	9,368	(338,097)	43,399
Short-term borrowings	—	2,228	11	—	2,239
Accrued expenses and other liabilities	8,774	2,799	14	—	11,587
Long-term debt	—	39,958	664	—	40,622
Total liabilities [4]	$ 101,647	$ 900,775	$ 10,106	$ (601,493)	$ 411,035

(1) Amounts represent the impact of legally enforceable master netting agreements and also cash collateral held or placed with the same counterparties.
(2) Includes securities with a fair value of $27.4 billion that were segregated in compliance with securities regulations or deposited with clearing organizations. This amount is included in the parenthetical disclosure on the Consolidated Balance Sheet. Trading account assets also includes certain commodities inventory of $843 million that is accounted for at the lower of cost or net realizable value, which is the current selling price less any costs to sell.
(3) Includes MSRs, which are classified as Level 3 assets, of $1.0 billion.
(4) Total recurring Level 3 assets were 0.36 percent of total consolidated assets, and total recurring Level 3 liabilities were 0.36 percent of total consolidated liabilities.

(Dollars in millions)	December 31, 2022				
	Fair Value Measurements				
	Level 1	Level 2	Level 3	Netting Adjustments [1]	Assets/Liabilities at Fair Value
Assets					
Time deposits placed and other short-term investments	$ 868	$ —	$ —	$ —	$ 868
Federal funds sold and securities borrowed or purchased under agreements to resell [2]	—	146,999	—	—	146,999
Trading account assets:					
U.S. Treasury and government agencies	58,894	212	—	—	59,106
Corporate securities, trading loans and other	—	46,897	2,384	—	49,281
Equity securities	77,868	35,065	145	—	113,078
Non-U.S. sovereign debt	7,392	26,306	518	—	34,216
Mortgage trading loans, MBS and ABS:					
U.S. government-sponsored agency guaranteed	—	28,563	34	—	28,597
Mortgage trading loans, ABS and other MBS	—	10,312	1,518	—	11,830
Total trading account assets [3]	144,154	147,355	4,599	—	296,108
Derivative assets	14,775	380,380	3,213	(349,726)	48,642
AFS debt securities:					
U.S. Treasury and government agencies	158,102	920	—	—	159,022
Mortgage-backed securities:					
Agency	—	23,442	—	—	23,442
Agency-collateralized mortgage obligations	—	2,221	—	—	2,221
Non-agency residential	—	128	258	—	386
Commercial	—	6,407	—	—	6,407
Non-U.S. securities	—	13,212	195	—	13,407
Other taxable securities	—	4,645	—	—	4,645
Tax-exempt securities	—	11,207	51	—	11,258
Total AFS debt securities	158,102	62,182	504	—	220,788
Other debt securities carried at fair value:					
U.S. Treasury and government agencies	561	—	—	—	561
Non-agency residential MBS	—	248	119	—	367
Non-U.S. and other securities	3,027	5,251	—	—	8,278
Total other debt securities carried at fair value	3,588	5,499	119	—	9,206
Loans and leases	—	5,518	253	—	5,771
Loans held-for-sale	—	883	232	—	1,115
Other assets [4]	6,898	897	1,799	—	9,594
Total assets [5]	$ 328,385	$ 749,713	$ 10,719	$ (349,726)	$ 739,091
Liabilities					
Interest-bearing deposits in U.S. offices	$ —	$ 311	$ —	$ —	$ 311
Federal funds purchased and securities loaned or sold under agreements to repurchase [2]	—	151,708	—	—	151,708
Trading account liabilities:					
U.S. Treasury and government agencies	13,906	181	—	—	14,087
Equity securities	36,937	4,825	—	—	41,762
Non-U.S. sovereign debt	9,636	8,228	—	—	17,864
Corporate securities and other	—	6,628	58	—	6,686
Total trading account liabilities	60,479	19,862	58	—	80,399
Derivative liabilities	15,431	376,979	6,106	(353,700)	44,816
Short-term borrowings	—	818	14	—	832
Accrued expenses and other liabilities	7,458	2,262	32	—	9,752
Long-term debt	—	32,208	862	—	33,070
Total liabilities [5]	$ 83,368	$ 584,148	$ 7,072	$ (353,700)	$ 320,888

(1) Amounts represent the impact of legally enforceable derivative master netting agreements and also cash collateral held or placed with the same counterparties.
(2) Amounts have been netted by $221.7 billion to reflect the application of legally enforceable master netting agreements.
(3) Includes securities with a fair value of $16.6 billion that were segregated in compliance with securities regulations or deposited with clearing organizations. This amount is included in the parenthetical disclosure on the Consolidated Balance Sheet. Trading account assets also includes certain commodities inventory of $40 million that is accounted for at the lower of cost or net realizable value, which is the current selling price less any costs to sell.
(4) Includes MSRs, which are classified as Level 3 assets, of $1.0 billion.
(5) Total recurring Level 3 assets were 0.35 percent of total consolidated assets, and total recurring Level 3 liabilities were 0.25 percent of total consolidated liabilities.

The following tables present a reconciliation of all assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) during the three and six months ended June 30, 2023 and 2022, including net realized and unrealized gains (losses) included in earnings and accumulated OCI. Transfers into Level 3 occur primarily due to decreased price observability, and transfers out of Level 3 occur primarily due to increased price observability. Transfers occur on a regular basis for long-term debt instruments due to changes in the impact of unobservable inputs on the value of the embedded derivative in relation to the instrument as a whole.

Level 3 – Fair Value Measurements (1)

(Dollars in millions)	Balance April 1	Total Realized/Unrealized Gains (Losses) in Net Income (2)	Gains (Losses) in OCI (3)	Gross Purchases	Gross Sales	Gross Issuances	Gross Settlements	Gross Transfers into Level 3	Gross Transfers out of Level 3	Balance June 30	Change in Unrealized Gains (Losses) in Net Income Related to Financial Instruments Still Held (2)
Three Months Ended June 30, 2023											
Federal funds sold and securities borrowed or purchased under agreements to resell	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ 7**	**$ —**	**$ 7**	**$ —**
Trading account assets:											
Corporate securities, trading loans and other	**2,322**	**34**	**1**	**98**	**(35)**	**—**	**(308)**	**46**	**(58)**	**2,100**	**13**
Equity securities	**212**	**(2)**	**—**	**10**	**(32)**	**—**	**(12)**	**6**	**(23)**	**159**	**(17)**
Non-U.S. sovereign debt	**541**	**12**	**20**	**33**	**—**	**—**	**(38)**	**—**	**—**	**568**	**12**
Mortgage trading loans, MBS and ABS	**1,300**	**(19)**	**—**	**30**	**(52)**	**—**	**(105)**	**155**	**(76)**	**1,233**	**(28)**
Total trading account assets	**4,375**	**25**	**21**	**171**	**(119)**	**—**	**(463)**	**207**	**(157)**	**4,060**	**(20)**
Net derivative assets (liabilities) (4)	**(2,779)**	**(1,630)**	**(140)**	**280**	**(331)**	**—**	**(480)**	**(160)**	**243**	**(4,997)**	**(1,690)**
AFS debt securities:											
Non-agency residential MBS	**293**	**—**	**(2)**	**—**	**—**	**—**	**(3)**	**—**	**—**	**288**	**—**
Non-U.S. and other taxable securities	**187**	**4**	**4**	**—**	**—**	**—**	**(7)**	**—**	**(4)**	**184**	**2**
Tax-exempt securities	**51**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**51**	**—**
Total AFS debt securities	**531**	**4**	**2**	**—**	**—**	**—**	**(10)**	**—**	**(4)**	**523**	**2**
Other debt securities carried at fair value – Non-agency residential MBS	**94**	**1**	**—**	**—**	**—**	**—**	**(2)**	**—**	**(5)**	**88**	**2**
Loans and leases (5)	**243**	**(13)**	**—**	**—**	**(50)**	**—**	**(33)**	**—**	**—**	**147**	**(17)**
Loans held-for-sale (5)	**206**	**10**	**2**	**—**	**(5)**	**—**	**(25)**	**—**	**—**	**188**	**2**
Other assets (6, 7)	**1,769**	**98**	**6**	**—**	**1**	**17**	**(82)**	**—**	**—**	**1,809**	**65**
Trading account liabilities – Corporate securities and other	**(64)**	**(4)**	**—**	**(1)**	**—**	**—**	**2**	**(2)**	**20**	**(49)**	**—**
Short-term borrowings (5)	**(9)**	**3**	**—**	**—**	**(10)**	**(1)**	**6**	**—**	**—**	**(11)**	**3**
Accrued expenses and other liabilities (5)	**(20)**	**6**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(14)**	**6**
Long-term debt (5)	**(772)**	**64**	**(15)**	**—**	**53**	**—**	**6**	**—**	**—**	**(664)**	**69**
Three Months Ended June 30, 2022											
Trading account assets:											
Corporate securities, trading loans and other	$ 2,189	$ (67)	$ (1)	$ 755	$ (45)	$ —	$ (99)	$ 152	$ (517)	$ 2,367	$ (90)
Equity securities	183	(9)	—	12	(9)	—	—	18	(16)	179	(7)
Non-U.S. sovereign debt	496	(1)	(33)	5	(2)	—	—	5	—	470	—
Mortgage trading loans, MBS and ABS	1,615	(86)	—	78	(162)	—	(73)	65	(51)	1,386	(95)
Total trading account assets	4,483	(163)	(34)	850	(218)	—	(172)	240	(584)	4,402	(192)
Net derivative assets (liabilities) (4)	(2,134)	725	—	67	(166)	—	237	(36)	(375)	(1,682)	763
AFS debt securities:											
Non-agency residential MBS	244	(2)	2	—	—	—	(19)	74	—	299	(2)
Non-U.S. and other taxable securities	155	3	(8)	126	—	—	(9)	—	(67)	200	—
Tax-exempt securities	52	—	—	—	—	—	—	—	—	52	—
Total AFS debt securities	451	1	(6)	126	—	—	(28)	74	(67)	551	(2)
Other debt securities carried at fair value – Non-agency residential MBS	138	(1)	—	—	—	—	(8)	—	(17)	112	(1)
Loans and leases (5)	690	(11)	—	—	(153)	—	(21)	—	(249)	256	(9)
Loans held-for-sale (5)	382	17	(7)	66	(6)	—	(115)	8	—	345	13
Other assets (6, 7)	1,695	82	(8)	—	—	45	(64)	—	—	1,750	61
Trading account liabilities – Corporate securities and other	(11)	(1)	—	—	—	—	(2)	—	—	(14)	—
Accrued expenses and other liabilities (5)	(50)	(13)	—	—	—	—	—	—	—	(63)	(13)
Long-term debt (5)	(877)	(13)	46	—	14	(1)	13	—	6	(812)	(13)

(1) Assets (liabilities). For assets, increase (decrease) to Level 3 and for liabilities, (increase) decrease to Level 3.
(2) Includes gains (losses) reported in earnings in the following income statement line items: Trading account assets/liabilities - market making and similar activities and other income; Net derivative assets (liabilities) - market making and similar activities and other income; AFS debt securities - other income; Other debt securities carried at fair value - other income; Loans and leases - market making and similar activities and other income; Loans held-for-sale - other income; Other assets - market making and similar activities and other income related to MSRs; Short-term borrowings - market making and similar activities; Accrued expenses and other liabilities - market making and similar activities and other income; Long-term debt - market making and similar activities.
(3) Includes unrealized gains (losses) in OCI on AFS debt securities, foreign currency translation adjustments, derivatives designated in cash flow hedges and the impact of changes in the Corporation's credit spreads on long-term debt accounted for under the fair value option. Amounts include net unrealized losses of $124 million and $9 million related to financial instruments still held at June 30, 2023 and 2022.
(4) Net derivative assets (liabilities) include derivative assets of $4.4 billion and $3.0 billion and derivative liabilities of $9.4 billion and $4.6 billion at June 30, 2023 and 2022.
(5) Amounts represent instruments that are accounted for under the fair value option.
(6) Issuances represent MSRs recognized following securitizations or whole-loan sales.
(7) Settlements primarily represent the net change in fair value of the MSR asset due to the recognition of modeled cash flows and the passage of time.

Level 3 – Fair Value Measurements (1)

(Dollars in millions)	Balance January 1	Total Realized/Unrealized Gains (Losses) in Net Income (2)	Gains (Losses) in OCI (3)	Gross				Gross Transfers into Level 3	Gross Transfers out of Level 3	Balance June 30	Change in Unrealized Gains (Losses) in Net Income Related to Financial Instruments Still Held (2)
				Purchases	Sales	Issuances	Settlements				
Six Months Ended June 30, 2023											
Federal funds sold and securities borrowed or purchased under agreements to resell	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 7	$ —	$ 7	$ —
Trading account assets:											
Corporate securities, trading loans and other	**2,384**	**61**	**2**	**224**	**(155)**	**14**	**(452)**	**194**	**(172)**	**2,100**	**29**
Equity securities	**145**	**(6)**	**—**	**16**	**(44)**	**—**	**(12)**	**83**	**(23)**	**159**	**(17)**
Non-U.S. sovereign debt	**518**	**38**	**36**	**36**	**(6)**	**—**	**(54)**	**—**	**—**	**568**	**96**
Mortgage trading loans, MBS and ABS	**1,552**	**(28)**	**—**	**104**	**(202)**	**—**	**(221)**	**242**	**(214)**	**1,233**	**(39)**
Total trading account assets	**4,599**	**65**	**38**	**380**	**(407)**	**14**	**(739)**	**519**	**(409)**	**4,060**	**69**
Net derivative assets (liabilities) (4)	**(2,893)**	**(1,561)**	**(140)**	**529**	**(599)**	**—**	**(795)**	**161**	**301**	**(4,997)**	**(2,077)**
AFS debt securities:											
Non-agency residential MBS	**258**	**3**	**32**	**—**	**—**	**—**	**(5)**	**—**	**—**	**288**	**4**
Non-U.S. and other taxable securities	**195**	**4**	**7**	**—**	**—**	**—**	**(15)**	**—**	**(7)**	**184**	**(1)**
Tax-exempt securities	**51**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**51**	**—**
Total AFS debt securities	**504**	**7**	**39**	**—**	**—**	**—**	**(20)**	**—**	**(7)**	**523**	**3**
Other debt securities carried at fair value – Non-agency residential MBS	**119**	**(1)**	**—**	**—**	**(19)**	**—**	**(4)**	**—**	**(7)**	**88**	**1**
Loans and leases (5, 6)	**253**	**(11)**	**—**	**9**	**(50)**	**—**	**(70)**	**16**	**—**	**147**	**(17)**
Loans held-for-sale (5, 6)	**232**	**22**	**4**	**—**	**(21)**	**—**	**(49)**	**—**	**—**	**188**	**20**
Other assets (6, 7)	**1,799**	**108**	**7**	**6**	**1**	**44**	**(158)**	**2**	**—**	**1,809**	**48**
Trading account liabilities – Corporate securities and other	**(58)**	**(4)**	**—**	**(1)**	**(2)**	**(1)**	**2**	**(6)**	**21**	**(49)**	**(1)**
Short-term borrowings (5)	**(14)**	**3**	**—**	**—**	**(13)**	**(2)**	**15**	**—**	**—**	**(11)**	**2**
Accrued expenses and other liabilities (5)	**(32)**	**30**	**—**	**(12)**	**—**	**—**	**—**	**—**	**—**	**(14)**	**11**
Long-term debt (5)	**(862)**	**151**	**(21)**	**(9)**	**53**	**—**	**17**	**—**	**7**	**(664)**	**139**
Six Months Ended June 30, 2022											
Trading account assets:											
Corporate securities, trading loans and other	$ 2,110	$ (69)	$ (1)	$ 767	$ (198)	$ —	$ (117)	$ 520	$ (645)	$ 2,367	$ (53)
Equity securities	190	7	—	28	(15)	—	(4)	26	(53)	179	(11)
Non-U.S. sovereign debt	396	19	20	7	(2)	—	(15)	50	(5)	470	16
Mortgage trading loans, MBS and ABS	1,527	(178)	—	207	(317)	—	(94)	316	(75)	1,386	(124)
Total trading account assets	4,223	(221)	19	1,009	(532)	—	(230)	912	(778)	4,402	(172)
Net derivative assets (liabilities) (4)	(2,662)	1,342	—	125	(351)	—	344	(179)	(301)	(1,682)	1,238
AFS debt securities:											
Non-agency residential MBS	316	2	(22)	—	(8)	—	(63)	74	—	299	2
Non-U.S. and other taxable securities	71	3	(9)	126	—	—	(9)	87	(69)	200	3
Tax-exempt securities	52	—	—	—	—	—	—	—	—	52	(1)
Total AFS debt securities	439	5	(31)	126	(8)	—	(72)	161	(69)	551	4
Other debt securities carried at fair value – Non-agency residential MBS	242	(40)	—	—	—	—	(73)	—	(17)	112	(5)
Loans and leases (5, 6)	748	(41)	—	—	(154)	—	(48)	—	(249)	256	(34)
Loans held-for-sale (5, 6)	317	24	5	170	(6)	—	(173)	8	—	345	18
Other assets (6, 7)	1,572	226	(5)	—	1	85	(133)	4	—	1,750	193
Trading account liabilities – Corporate securities and other	(11)	(1)	—	—	—	—	(2)	—	—	(14)	—
Accrued expenses and other liabilities (5)	—	(63)	—	—	—	—	—	—	—	(63)	(64)
Long-term debt (5)	(1,075)	(122)	79	—	14	(1)	17	(6)	282	(812)	(125)

(1) Assets (liabilities). For assets, increase (decrease) to Level 3 and for liabilities, (increase) decrease to Level 3.
(2) Includes gains (losses) reported in earnings in the following income statement line items: Trading account assets/liabilities - market making and similar activities and other income; Net derivative assets (liabilities) - market making and similar activities and other income; AFS debt securities - other income; Other debt securities carried at fair value - other income; Loans and leases - market making and similar activities and other income; Loans held-for-sale - other income; Other assets - market making and similar activities and other income related to MSRs; Short-term borrowings - market making and similar activities; Accrued expenses and other liabilities - market making and similar activities and other income; Long-term debt - market making and similar activities.
(3) Includes unrealized gains (losses) in OCI on AFS debt securities, foreign currency translation adjustments, derivatives designated in cash flow hedges and the impact of changes in the Corporation's credit spreads on long-term debt accounted for under the fair value option. Amounts include net unrealized gains (losses) of $(74) million and $71 million related to financial instruments still held at June 30, 2023 and 2022.
(4) Net derivative assets (liabilities) include derivative assets of $4.4 billion and $3.0 billion and derivative liabilities of $9.4 billion and $4.6 billion at June 30, 2023 and 2022.
(5) Amounts represent instruments that are accounted for under the fair value option.
(6) Issuances represent loan originations and MSRs recognized following securitizations or whole-loan sales.
(7) Settlements primarily represent the net change in fair value of the MSR asset due to the recognition of modeled cash flows and the passage of time.

The following tables present information about significant unobservable inputs related to the Corporation's material categories of Level 3 financial assets and liabilities at June 30, 2023 and December 31, 2022.

Quantitative Information about Level 3 Fair Value Measurements at June 30, 2023

(Dollars in millions)

Financial Instrument	Fair Value	Valuation Technique	Inputs: Significant Unobservable Inputs	Inputs: Ranges of Inputs	Inputs: Weighted Average [(1)]
Loans and Securities [(2)]					
Instruments backed by residential real estate assets	**$ 599**	Discounted cash flow, Market comparables	Yield	0% to 20%	9 %
Trading account assets – Mortgage trading loans, MBS and ABS	133		Prepayment speed	0% to 38% CPR	12% CPR
Loans and leases	90		Default rate	0% to 3% CDR	1% CDR
AFS debt securities – Non-agency residential	288		Price	$0 to $114	$20
Other debt securities carried at fair value – Non-agency residential	88		Loss severity	0% to 100%	26 %
Instruments backed by commercial real estate assets	**$ 406**	Discounted cash flow	Yield	0% to 25%	12 %
Trading account assets – Corporate securities, trading loans and other	315		Price	$0 to $100	$77
Trading account assets – Mortgage trading loans, MBS and ABS	91				
Commercial loans, debt securities and other	**$ 3,842**	Discounted cash flow, Market comparables	Yield	5% to 41%	21 %
Trading account assets – Corporate securities, trading loans and other	1,785		Prepayment speed	10% to 20%	15 %
Trading account assets – Non-U.S. sovereign debt	568		Default rate	3% to 4%	4 %
Trading account assets – Mortgage trading loans, MBS and ABS	1,009		Loss severity	35% to 40%	38 %
AFS debt securities – Tax-exempt securities	51		Price	$0 to $157	$72
AFS debt securities – Non-U.S. and other taxable securities	184				
Loans and leases	57				
Loans held-for-sale	188				
Other assets, primarily auction rate securities	**$ 805**	Discounted cash flow, Market comparables	Price	$10 to $97	$94
			Discount rate	11 %	n/a
MSRs	**$ 1,004**	Discounted cash flow	Weighted-average life, fixed rate [(5)]	0 to 14 years	6 years
			Weighted-average life, variable rate [(5)]	0 to 10 years	3 years
			Option-adjusted spread, fixed rate	7% to 14%	9 %
			Option-adjusted spread, variable rate	9% to 15%	12 %
Structured liabilities					
Long-term debt	**$ (664)**	Discounted cash flow, Market comparables, Industry standard derivative pricing [(3)]	Yield	40% to 41%	41 %
			Equity correlation	2% to 95%	79 %
			Price	$0 to $100	$88
			Natural gas forward price	$2/MMBtu to $8/MMBtu	$4 /MMBtu
Net derivative assets (liabilities)					
Credit derivatives	**$ 1**	Discounted cash flow, Stochastic recovery correlation model	Credit spreads	3 to 84 bps	67 bps
			Prepayment speed	15% CPR	n/a
			Default rate	2% CDR	n/a
			Credit correlation	19% to 60%	53 %
			Price	$0 to $100	$87
Equity derivatives	**$ (1,419)**	Industry standard derivative pricing [(3)]	Equity correlation	0% to 100%	68 %
			Long-dated equity volatilities	2% to 122%	38 %
Commodity derivatives	**$ (553)**	Discounted cash flow, Industry standard derivative pricing [(3)]	Natural gas forward price	$2/MMBtu to $8/MMBtu	$4 /MMBtu
			Power forward price	$18 to $91	$39
Interest rate derivatives	**$ (3,026)**	Industry standard derivative pricing [(4)]	Correlation (IR/IR)	(35)% to 89%	66 %
			Correlation (FX/IR)	11% to 58%	42 %
			Long-dated inflation rates	(1)% to 11%	0 %
			Long-dated inflation volatilities	0% to 5%	2 %
			Interest rate volatilities	0% to 2%	1 %
Total net derivative assets (liabilities)	**$ (4,997)**				

(1) For loans and securities, structured liabilities and net derivative assets (liabilities), the weighted average is calculated based upon the absolute fair value of the instruments.
(2) The categories are aggregated based upon product type, which differs from financial statement classification. The following is a reconciliation to the line items in the table on page 91: Trading account assets – Corporate securities, trading loans and other of $ 2.1 billion, Trading account assets – Non-U.S. sovereign debt of $ 568 million, Trading account assets – Mortgage trading loans, MBS and ABS of $ 1.2 billion, AFS debt securities of $523 million, Other debt securities carried at fair value - Non-agency residential of $88 million, Other assets, including MSRs, of $1.8 billion, Loans and leases of $147 million and LHFS of $188 million.
(3) Includes models such as Monte Carlo simulation and Black-Scholes.
(4) Includes models such as Monte Carlo simulation, Black-Scholes and other methods that model the joint dynamics of interest, inflation and foreign exchange rates.
(5) The weighted-average life is a product of changes in market rates of interest, prepayment rates and other model and cash flow assumptions.
CPR = Constant Prepayment Rate
CDR = Constant Default Rate
MMBtu = Million British thermal units
IR = Interest Rate
FX = Foreign Exchange
n/a = not applicable

Quantitative Information about Level 3 Fair Value Measurements at December 31, 2022

(Dollars in millions)

Financial Instrument	Fair Value	Valuation Technique	Significant Unobservable Inputs (Inputs)	Ranges of Inputs (Inputs)	Weighted Average [1] (Inputs)
Loans and Securities [2]					
Instruments backed by residential real estate assets	**$ 852**	Discounted cash flow, Market comparables	Yield	0% to 25%	10 %
Trading account assets – Mortgage trading loans, MBS and ABS	338		Prepayment speed	0% to 29% CPR	12% CPR
Loans and leases	137		Default rate	0% to 3% CDR	1% CDR
AFS debt securities - Non-agency residential	258		Price	$0 to $111	$26
Other debt securities carried at fair value - Non-agency residential	119		Loss severity	0% to 100%	24 %
Instruments backed by commercial real estate assets	**$ 362**	Discounted cash flow	Yield	0% to 25%	10 %
Trading account assets – Corporate securities, trading loans and other	292		Price	$0 to $100	$75
Trading account assets – Mortgage trading loans, MBS and ABS	66				
Loans held-for-sale	4				
Commercial loans, debt securities and other	**$ 4,348**	Discounted cash flow, Market comparables	Yield	5% to 43%	15 %
Trading account assets – Corporate securities, trading loans and other	2,092		Prepayment speed	10% to 20%	15 %
Trading account assets – Non-U.S. sovereign debt	518		Default rate	3% to 4%	4 %
Trading account assets – Mortgage trading loans, MBS and ABS	1,148		Loss severity	35% to 40%	38 %
AFS debt securities – Tax-exempt securities	51		Price	$0 to $157	$75
AFS debt securities – Non-U.S. and other taxable securities	195				
Loans and leases	116				
Loans held-for-sale	228				
Other assets, primarily auction rate securities	**$ 779**	Discounted cash flow, Market comparables	Price	$10 to $97	$94
			Discount rate	11%	n/a
MSRs	**$ 1,020**	Discounted cash flow	Weighted-average life, fixed rate [5]	0 to 14 years	6 years
			Weighted-average life, variable rate [5]	0 to 12 years	4 years
			Option-adjusted spread, fixed rate	7% to 14%	9 %
			Option-adjusted spread, variable rate	9% to 15%	12 %
Structured liabilities					
Long-term debt	**$ (862)**	Discounted cash flow, Market comparables, Industry standard derivative pricing [3]	Yield	22% to 43%	23 %
			Equity correlation	0% to 95%	69 %
			Price	$0 to $119	$90
			Natural gas forward price	$3/MMBtu to $13/MMBtu	$9/MMBtu
Net derivative assets (liabilities)					
Credit derivatives	**$ (44)**	Discounted cash flow, Stochastic recovery correlation model	Credit spreads	3 to 63 bps	22 bps
			Upfront points	0 to 100 points	83 points
			Prepayment speed	15% CPR	n/a
			Default rate	2% CDR	n/a
			Credit correlation	18% to 53%	44 %
			Price	$0 to $151	$63
Equity derivatives	**$ (1,534)**	Industry standard derivative pricing [3]	Equity correlation	0% to 100%	73 %
			Long-dated equity volatilities	4% to 101%	44 %
Commodity derivatives	**$ (291)**	Discounted cash flow, Industry standard derivative pricing [3]	Natural gas forward price	$3/MMBtu to $13/MMBtu	$8/MMBtu
			Power forward price	$9 to $123	$43
Interest rate derivatives	**$ (1,024)**	Industry standard derivative pricing [4]	Correlation (IR/IR)	(35)% to 89%	67 %
			Correlation (FX/IR)	11% to 58%	43 %
			Long-dated inflation rates	0% to 39%	1 %
			Long-dated inflation volatilities	0% to 5%	2 %
			Interest rates volatilities	0% to 2%	1 %
Total net derivative assets (liabilities)	**$ (2,893)**				

(1) For loans and securities, structured liabilities and net derivative assets (liabilities), the weighted average is calculated based upon the absolute fair value of the instruments.
(2) The categories are aggregated based upon product type, which differs from financial statement classification. The following is a reconciliation to the line items in the table on page 92: Trading account assets – Corporate securities, trading loans and other of $ 2.4 billion, Trading account assets – Non-U.S. sovereign debt of $ 518 million, Trading account assets – Mortgage trading loans, MBS and ABS of $ 1.6 billion, AFS debt securities of $504 million, Other debt securities carried at fair value - Non-agency residential of $119 million, Other assets, including MSRs, of $1.8 billion, Loans and leases of $253 million and LHFS of $232 million.
(3) Includes models such as Monte Carlo simulation and Black-Scholes.
(4) Includes models such as Monte Carlo simulation, Black-Scholes and other methods that model the joint dynamics of interest, inflation and foreign exchange rates.
(5) The weighted-average life is a product of changes in market rates of interest, prepayment rates and other model and cash flow assumptions.
CPR = Constant Prepayment Rate
CDR = Constant Default Rate
MMBtu = Million British thermal units
IR = Interest Rate
FX = Foreign Exchange
n/a = not applicable

Uncertainty of Fair Value Measurements from Unobservable Inputs

For information on the types of instruments, valuation approaches and the impact of changes in unobservable inputs used in Level 3 measurements, see *Note 20 – Fair Value Measurements* to the Consolidated Financial Statements of the Corporation’s 2022 Annual Report on Form 10-K.

Nonrecurring Fair Value

The Corporation holds certain assets that are measured at fair value only in certain situations (e.g., the impairment of an asset), and these measurements are referred to herein as nonrecurring. The amounts below represent assets still held as of the reporting date for which a nonrecurring fair value adjustment was recorded during the three and six months ended June 30, 2023 and 2022.

Assets Measured at Fair Value on a Nonrecurring Basis

	June 30, 2023		Three Months Ended June 30, 2023	Six Months Ended June 30, 2023
(Dollars in millions)	**Level 2**	**Level 3**	**Gains (Losses)**	
Assets				
Loans held-for-sale	**$ 109**	**$ 3,671**	**$ (18)**	**$ (67)**
Loans and leases [1]	**—**	**95**	**(13)**	**(23)**
Foreclosed properties [2, 3]	**—**	**6**	**(4)**	**(4)**
Other assets	**4**	**30**	**(1)**	**(7)**
	June 30, 2022		Three Months Ended June 30, 2022	Six Months Ended June 30, 2022
Assets				
Loans held-for-sale	$ 749	$ 403	$ (31)	$ (32)
Loans and leases [1]	—	124	(21)	(33)
Foreclosed properties [2, 3]	—	3	(2)	(1)
Other assets	85	48	(23)	(41)

(1) Includes $3 million and $5 million of losses on loans that were written down to a collateral value of zero during the three and six months ended June 30, 2023 compared to losses of $8 million and $12 million for the same periods in 2022.
(2) Amounts are included in other assets on the Consolidated Balance Sheet and represent the carrying value of foreclosed properties that were written down subsequent to their initial classification as foreclosed properties. Losses on foreclosed properties include losses recorded during the first 90 days after transfer of a loan to foreclosed properties.
(3) Excludes $46 million and $71 million of properties acquired upon foreclosure of certain government-guaranteed loans (principally FHA-insured loans) at June 30, 2023 and 2022.

The table below presents information about significant unobservable inputs utilized in the Corporation's nonrecurring Level 3 fair value measurements during the six months ended June 30, 2023 and the year ended December 31, 2022.

Quantitative Information about Nonrecurring Level 3 Fair Value Measurements

			Inputs		
Financial Instrument	**Fair Value**	**Valuation Technique**	**Significant Unobservable Inputs**	**Ranges of Inputs**	**Weighted Average [1]**
(Dollars in millions)			**Six Months Ended June 30, 2023**		
Loans held-for-sale	**$ 3,671**	Pricing model	Implied yield	9% to 26%	n/a
Loans and leases [2]	**95**	Market comparables	OREO discount	10% to 66%	26 %
			Costs to sell	8% to 24%	9 %
			Year Ended December 31, 2022		
Loans held-for-sale	**$ 3,079**	Pricing model	Implied yield	9% to 24%	n/a
Loans and leases [2]	**166**	Market comparables	OREO discount	10% to 66%	26 %
			Costs to sell	8% to 24%	9 %
Other assets [3]	165	Discounted cash flow	Discount rate	7 %	n/a

(1) The weighted average is calculated based upon the fair value of the loans.
(2) Represents residential mortgages where the loan has been written down to the fair value of the underlying collateral.
(3) Represents the fair value of certain impaired renewable energy investments.
n/a = not applicable

NOTE 15 Fair Value Option

The Corporation elects to account for certain financial instruments under the fair value option. For more information on the primary financial instruments for which the fair value option elections have been made, see *Note 21 – Fair Value Option* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K. The following tables provide information about the fair value carrying amount and the contractual principal outstanding of assets and liabilities accounted for under the fair value option at June 30, 2023 and December 31, 2022, and information about where changes in the fair value of assets and liabilities accounted for under the fair value option are included in the Consolidated Statement of Income for the three and six months ended June 30, 2023 and 2022.

Fair Value Option Elections

(Dollars in millions)	June 30, 2023 Fair Value Carrying Amount	June 30, 2023 Contractual Principal Outstanding	June 30, 2023 Fair Value Carrying Amount Less Unpaid Principal	December 31, 2022 Fair Value Carrying Amount	December 31, 2022 Contractual Principal Outstanding	December 31, 2022 Fair Value Carrying Amount Less Unpaid Principal
Federal funds sold and securities borrowed or purchased under agreements to resell	**$ 152,081**	**$ 152,147**	**$ (66)**	$ 146,999	$ 147,158	$ (159)
Loans reported as trading account assets [1]	**8,664**	**16,280**	**(7,616)**	10,143	17,682	(7,539)
Trading inventory – other	**24,172**	**n/a**	**n/a**	20,770	n/a	n/a
Consumer and commercial loans	**4,327**	**4,412**	**(85)**	5,771	5,897	(126)
Loans held-for-sale [1]	**2,063**	**2,865**	**(802)**	1,115	1,873	(758)
Other assets	**672**	**n/a**	**n/a**	620	n/a	n/a
Long-term deposits	**379**	**453**	**(74)**	311	381	(70)
Federal funds purchased and securities loaned or sold under agreements to repurchase	**214,991**	**215,144**	**(153)**	151,708	151,885	(177)
Short-term borrowings	**2,239**	**2,261**	**(22)**	832	833	(1)
Unfunded loan commitments	**75**	**n/a**	**n/a**	110	n/a	n/a
Accrued expenses and other liabilities	**1,425**	**1,454**	**(29)**	1,217	1,161	56
Long-term debt	**40,622**	**44,483**	**(3,861)**	33,070	36,830	(3,760)

(1) A significant portion of the loans reported as trading account assets and LHFS are distressed loans that were purchased at a deep discount to par, and the remainder are loans with a fair value near contractual principal outstanding.
n/a = not applicable

Gains (Losses) Related to Assets and Liabilities Accounted for Under the Fair Value Option

(Dollars in millions)	2023 Market making and similar activities	2023 Other Income	2023 Total	2022 Market making and similar activities	2022 Other Income	2022 Total
Three Months Ended June 30						
Loans reported as trading account assets	**$ 93**	**$ —**	**$ 93**	$ (153)	$ —	$ (153)
Trading inventory – other [1]	**1,237**	**—**	**1,237**	(2,588)	—	(2,588)
Consumer and commercial loans	**(16)**	**11**	**(5)**	(48)	(65)	(113)
Loans held-for-sale [2]	**—**	**(4)**	**(4)**	—	(90)	(90)
Short-term borrowings	**6**	**—**	**6**	3	—	3
Unfunded loan commitments	**—**	**44**	**44**	—	(81)	(81)
Long-term debt [3]	**416**	**(7)**	**409**	2,363	(9)	2,354
Other [4]	**55**	**(2)**	**53**	(1)	7	6
Total	**$ 1,791**	**$ 42**	**$ 1,833**	$ (424)	$ (238)	$ (662)
Six Months Ended June 30						
Loans reported as trading account assets	**$ 150**	**$ —**	**$ 150**	$ (149)	$ —	$ (149)
Trading inventory – other [1]	**2,965**	**—**	**2,965**	(2,128)	—	(2,128)
Consumer and commercial loans	**(139)**	**41**	**(98)**	(70)	(78)	(148)
Loans held-for-sale [2]	**—**	**16**	**16**	—	(222)	(222)
Short-term borrowings	**11**	**—**	**11**	562	—	562
Unfunded loan commitments	**—**	**20**	**20**	—	(88)	(88)
Long-term debt [3]	**(502)**	**(23)**	**(525)**	3,487	(20)	3,467
Other [4]	**84**	**(11)**	**73**	(6)	24	18
Total	**$ 2,569**	**$ 43**	**$ 2,612**	$ 1,696	$ (384)	$ 1,312

(1) The gains (losses) in market making and similar activities are primarily offset by (losses) gains on trading liabilities that hedge these assets.
(2) Includes the value of IRLCs on funded loans, including those sold during the period.
(3) The net gains (losses) in market making and similar activities relate to the embedded derivatives in structured liabilities and are typically offset by (losses) gains on derivatives and securities that hedge these liabilities. For the cumulative impact of changes in the Corporation's own credit spreads and the amount recognized in accumulated OCI, see *Note 12 – Accumulated Other Comprehensive Income (Loss)*. For more information on how the Corporation's own credit spread is determined, see *Note 20 – Fair Value Measurements* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.
(4) Includes gains (losses) on federal funds sold and securities borrowed or purchased under agreements to resell, other assets, long-term deposits, federal funds purchased and securities loaned or sold under agreements to repurchase, and accrued expenses and other liabilities.

Gains (Losses) Related to Borrower-specific Credit Risk for Assets and Liabilities Accounted for Under the Fair Value Option

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Loans reported as trading account assets	**$ (4)**	$ (280)	**$ 36**	$ (311)
Consumer and commercial loans	**12**	(71)	**36**	(91)
Loans held-for-sale	**(2)**	—	**—**	(11)
Unfunded loan commitments	**44**	(81)	**20**	(88)

NOTE 16 Fair Value of Financial Instruments

The following disclosures include financial instruments that are not carried at fair value or only a portion of the ending balance is carried at fair value on the Consolidated Balance Sheet. Certain loans, deposits, long-term debt, unfunded lending commitments and other financial instruments are accounted for under the fair value option. For more information, see *Note 21 – Fair Value Option* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Fair Value of Financial Instruments

The carrying values and fair values by fair value hierarchy of certain financial instruments where only a portion of the ending balance was carried at fair value at June 30, 2023 and December 31, 2022 are presented in the following table.

Fair Value of Financial Instruments

	Carrying Value	Fair Value		
		Level 2	Level 3	Total
(Dollars in millions)	**June 30, 2023**			
Financial assets				
Loans	**$ 1,019,899**	**$ 48,670**	**$ 944,500**	**$ 993,170**
Loans held-for-sale	**6,788**	**2,829**	**3,960**	**6,789**
Financial liabilities				
Deposits [1]	**1,877,209**	**1,877,437**	**—**	**1,877,437**
Long-term debt	**286,073**	**284,255**	**976**	**285,231**
Commercial unfunded lending commitments [2]	**1,463**	**60**	**4,475**	**4,535**
	December 31, 2022			
Financial assets				
Loans	$ 1,014,593	$ 50,194	$ 935,282	$ 985,476
Loans held-for-sale	6,871	3,417	3,455	6,872
Financial liabilities				
Deposits [1]	1,930,341	1,930,165	—	1,930,165
Long-term debt	275,982	271,993	1,136	273,129
Commercial unfunded lending commitments [2]	1,650	77	6,596	6,673

(1) Includes demand deposits of $899.9 billion and $918.9 billion with no stated maturities at June 30, 2023 and December 31, 2022.

(2) The carrying value of commercial unfunded lending commitments is included in accrued expenses and other liabilities on the Consolidated Balance Sheet. The Corporation does not estimate the fair value of consumer unfunded lending commitments because, in many instances, the Corporation can reduce or cancel these commitments by providing notice to the borrower. For more information on commitments, see *Note 10 – Commitments and Contingencies*.

NOTE 17 Business Segment Information

The Corporation reports its results of operations through the following four business segments: *Consumer Banking*, *Global Wealth & Investment Management*, *Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. For more information, see *Note 23 – Business Segment Information* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K. The following tables present net income and the components thereto (with net interest income on an FTE basis for the business segments, *All Other* and the total Corporation) for the three and six months ended June 30, 2023 and 2022, and total assets at June 30, 2023 and 2022 for each business segment, as well as *All Other.*

Results of Business Segments and All Other

At and for the three months ended June 30	Total Corporation [1]		Consumer Banking		Global Wealth & Investment Management	
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022
Net interest income	**$ 14,293**	$ 12,547	**$ 8,437**	$ 7,087	**$ 1,805**	$ 1,802
Noninterest income	**11,039**	10,244	**2,087**	2,049	**3,437**	3,631
Total revenue, net of interest expense	**25,332**	22,791	**10,524**	9,136	**5,242**	5,433
Provision for credit losses	**1,125**	523	**1,267**	350	**13**	33
Noninterest expense	**16,038**	15,273	**5,453**	4,959	**3,925**	3,875
Income before income taxes	**8,169**	6,995	**3,804**	3,827	**1,304**	1,525
Income tax expense	**761**	748	**951**	938	**326**	374
Net income	**$ 7,408**	$ 6,247	**$ 2,853**	$ 2,889	**$ 978**	$ 1,151
Period-end total assets	**$ 3,123,198**	$ 3,111,606	**$ 1,084,512**	$ 1,154,366	**$ 338,184**	$ 393,948

	Global Banking		Global Markets		All Other	
	2023	2022	**2023**	2022	**2023**	2022
Net interest income	**$ 3,690**	$ 2,634	**$ 297**	$ 981	**$ 64**	$ 43
Noninterest income	**2,772**	2,372	**4,574**	3,521	**(1,831)**	(1,329)
Total revenue, net of interest expense	**6,462**	5,006	**4,871**	4,502	**(1,767)**	(1,286)
Provision for credit losses	**9**	157	**(4)**	8	**(160)**	(25)
Noninterest expense	**2,819**	2,799	**3,349**	3,109	**492**	531
Income before income taxes	**3,634**	2,050	**1,526**	1,385	**(2,099)**	(1,792)
Income tax expense	**981**	543	**420**	367	**(1,917)**	(1,474)
Net income	**$ 2,653**	$ 1,507	**$ 1,106**	$ 1,018	**$ (182)**	$ (318)
Period-end total assets	**$ 586,397**	$ 591,490	**$ 851,771**	$ 835,129	**$ 262,334**	$ 136,673

[1] There were no material intersegment revenues.

Results of Business Segments and All Other

At and for the six months ended June 30	Total Corporation [1]		Consumer Banking		Global Wealth & Investment Management	
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022
Net interest income	**$ 28,875**	$ 24,225	**$ 17,030**	$ 13,767	**$ 3,681**	$ 3,470
Noninterest income	**22,849**	21,900	**4,200**	4,182	**6,876**	7,439
Total revenue, net of interest expense	**51,724**	46,125	**21,230**	17,949	**10,557**	10,909
Provision for credit losses	**2,056**	553	**2,356**	298	**38**	(8)
Noninterest expense	**32,276**	30,592	**10,926**	9,880	**7,992**	7,890
Income before income taxes	**17,392**	14,980	**7,948**	7,771	**2,527**	3,027
Income tax expense	**1,823**	1,666	**1,987**	1,904	**632**	742
Net income	**$ 15,569**	$ 13,314	**$ 5,961**	$ 5,867	**$ 1,895**	$ 2,285
Period-end total assets	**$ 3,123,198**	$ 3,111,606	**$ 1,084,512**	$ 1,154,366	**$ 338,184**	$ 393,948

	Global Banking		Global Markets		All Other	
	2023	2022	**2023**	2022	**2023**	2022
Net interest income	**$ 7,597**	$ 4,978	**$ 406**	$ 1,974	**$ 161**	$ 36
Noninterest income	**5,068**	5,222	**10,091**	7,820	**(3,386)**	(2,763)
Total revenue, net of interest expense	**12,665**	10,200	**10,497**	9,794	**(3,225)**	(2,727)
Provision for credit losses	**(228)**	322	**(57)**	13	**(53)**	(72)
Noninterest expense	**5,759**	5,482	**6,700**	6,226	**899**	1,114
Income before income taxes	**7,134**	4,396	**3,854**	3,555	**(4,071)**	(3,769)
Income tax expense	**1,926**	1,165	**1,060**	942	**(3,782)**	(3,087)
Net income	**$ 5,208**	$ 3,231	**$ 2,794**	$ 2,613	**$ (289)**	$ (682)
Period-end total assets	**$ 586,397**	$ 591,490	**$ 851,771**	$ 835,129	**$ 262,334**	$ 136,673

[1] There were no material intersegment revenues.

The table below presents noninterest income and the associated components for the three and six months ended June 30, 2023 and 2022 for each business segment, *All Other* and the total Corporation. For more information, see *Note 2 – Net Interest Income and Noninterest Income*.

Noninterest Income by Business Segment and All Other

	Total Corporation		Consumer Banking		Global Wealth & Investment Management	
	Three Months Ended June 30					
(Dollars in millions)	**2023**	2022	**2023**	2022	**2023**	2022
Fees and commissions:						
Card income						
Interchange fees	**$ 1,023**	$ 1,072	**$ 808**	$ 853	**$ (3)**	$ 4
Other card income	**523**	483	**533**	467	**15**	13
Total card income	**1,546**	1,555	**1,341**	1,320	**12**	17
Service charges						
Deposit-related fees	**1,045**	1,417	**525**	679	**10**	19
Lending-related fees	**319**	300	**—**	—	**8**	—
Total service charges	**1,364**	1,717	**525**	679	**18**	19
Investment and brokerage services						
Asset management fees	**2,969**	3,102	**49**	50	**2,921**	3,056
Brokerage fees	**870**	989	**27**	26	**330**	430
Total investment and brokerage services	**3,839**	4,091	**76**	76	**3,251**	3,486
Investment banking fees						
Underwriting income	**657**	435	**—**	—	**40**	41
Syndication fees	**180**	301	**—**	—	**—**	—
Financial advisory services	**375**	392	**—**	—	**—**	—
Total investment banking fees	**1,212**	1,128	**—**	—	**40**	41
Total fees and commissions	**7,961**	8,491	**1,942**	2,075	**3,321**	3,563
Market making and similar activities	**3,697**	2,717	**5**	2	**32**	23
Other income (loss)	**(619)**	(964)	**140**	(28)	**84**	45
Total noninterest income	**$ 11,039**	$ 10,244	**$ 2,087**	$ 2,049	**$ 3,437**	$ 3,631

	Global Banking		Global Markets		All Other [1]	
	Three Months Ended June 30					
	2023	2022	**2023**	2022	**2023**	2022
Fees and commissions:						
Card income						
Interchange fees	**$ 199**	$ 194	**$ 19**	$ 17	**$ —**	$ 4
Other card income	**1**	2	**—**	—	**(26)**	1
Total card income	**200**	196	**19**	17	**(26)**	5
Service charges						
Deposit-related fees	**489**	688	**20**	28	**1**	3
Lending-related fees	**246**	245	**65**	55	**—**	—
Total service charges	**735**	933	**85**	83	**1**	3
Investment and brokerage services						
Asset management fees	**—**	—	—	—	**(1)**	(4)
Brokerage fees	**14**	13	**499**	518	**—**	2
Total investment and brokerage services	**14**	13	**499**	518	**(1)**	(2)
Investment banking fees						
Underwriting income	**283**	179	**384**	282	**(50)**	(67)
Syndication fees	**102**	152	**78**	149	**—**	—
Financial advisory services	**333**	361	**41**	30	**1**	1
Total investment banking fees	**718**	692	**503**	461	**(49)**	(66)
Total fees and commissions	**1,667**	1,834	**1,106**	1,079	**(75)**	(60)
Market making and similar activities	**69**	80	**3,409**	2,657	**182**	(45)
Other income (loss)	**1,036**	458	**59**	(215)	**(1,938)**	(1,224)
Total noninterest income	**$ 2,772**	$ 2,372	**$ 4,574**	$ 3,521	**$ (1,831)**	$ (1,329)

[1] *All Other* includes eliminations of intercompany transactions.

Noninterest Income by Business Segment and All Other

(Dollars in millions)	Total Corporation		Consumer Banking		Global Wealth & Investment Management	
	Six Months Ended June 30					
	2023	2022	**2023**	2022	**2023**	2022
Fees and commissions:						
Card income						
Interchange fees	**$ 1,979**	$ 2,007	**$ 1,561**	$ 1,596	**$ (3)**	$ 11
Other card income	**1,036**	951	**1,054**	909	**27**	24
Total card income	**3,015**	2,958	**2,615**	2,505	**24**	35
Service charges						
Deposit-related fees	**2,142**	2,947	**1,124**	1,523	**21**	38
Lending-related fees	**632**	603	**—**	—	**16**	—
Total service charges	**2,774**	3,550	**1,124**	1,523	**37**	38
Investment and brokerage services						
Asset management fees	**5,887**	6,388	**96**	102	**5,794**	6,290
Brokerage fees	**1,804**	1,995	**54**	57	**695**	850
Total investment and brokerage services	**7,691**	8,383	**150**	159	**6,489**	7,140
Investment banking fees						
Underwriting income	**1,226**	1,107	**—**	—	**79**	107
Syndication fees	**411**	613	**—**	—	**—**	—
Financial advisory services	**738**	865	**—**	—	**—**	—
Total investment banking fees	**2,375**	2,585	**—**	—	**79**	107
Total fees and commissions	**15,855**	17,476	**3,889**	4,187	**6,629**	7,320
Market making and similar activities	**8,409**	5,955	**10**	2	**66**	36
Other income (loss)	**(1,415)**	(1,531)	**301**	(7)	**181**	83
Total noninterest income	**$ 22,849**	$ 21,900	**$ 4,200**	$ 4,182	**$ 6,876**	$ 7,439

	Global Banking		Global Markets		All Other [1]	
	Six Months Ended June 30					
	2023	2022	**2023**	2022	**2023**	2022
Fees and commissions:						
Card income						
Interchange fees	**$ 386**	$ 369	**$ 35**	$ 31	**$ —**	$ —
Other card income	**4**	3	**—**	—	**(49)**	15
Total card income	**390**	372	**35**	31	**(49)**	15
Service charges						
Deposit-related fees	**956**	1,325	**40**	56	**1**	5
Lending-related fees	**493**	494	**123**	109	**—**	—
Total service charges	**1,449**	1,819	**163**	165	**1**	5
Investment and brokerage services						
Asset management fees	**—**	—	**—**	—	**(3)**	(4)
Brokerage fees	**23**	25	**1,032**	1,063	**—**	—
Total investment and brokerage services	**23**	25	**1,032**	1,063	**(3)**	(4)
Investment banking fees						
Underwriting income	**512**	454	**698**	684	**(63)**	(138)
Syndication fees	**228**	318	**183**	295	**—**	—
Financial advisory services	**646**	800	**91**	64	**1**	1
Total investment banking fees	**1,386**	1,572	**972**	1,043	**(62)**	(137)
Total fees and commissions	**3,248**	3,788	**2,202**	2,302	**(113)**	(121)
Market making and similar activities	**114**	129	**7,807**	5,847	**412**	(59)
Other income (loss)	**1,706**	1,305	**82**	(329)	**(3,685)**	(2,583)
Total noninterest income	**$ 5,068**	$ 5,222	**$ 10,091**	$ 7,820	**$ (3,386)**	$ (2,763)

(1) *All Other* includes eliminations of intercompany transactions.

Business Segment Reconciliations

(Dollars in millions)	Three Months Ended June 30 2023	Three Months Ended June 30 2022	Six Months Ended June 30 2023	Six Months Ended June 30 2022
Segments' total revenue, net of interest expense	**$ 27,099**	$ 24,077	**$ 54,949**	$ 48,852
Adjustments [1]:				
Asset and liability management activities	**(207)**	(65)	**(432)**	(132)
Liquidating businesses, eliminations and other	**(1,560)**	(1,221)	**(2,793)**	(2,595)
FTE basis adjustment	**(135)**	(103)	**(269)**	(209)
Consolidated revenue, net of interest expense	**$ 25,197**	$ 22,688	**$ 51,455**	$ 45,916
Segments' total net income	**7,590**	6,565	**15,858**	13,996
Adjustments, net-of-tax [1]:				
Asset and liability management activities	**(151)**	(24)	**(325)**	(82)
Liquidating businesses, eliminations and other	**(31)**	(294)	**36**	(600)
Consolidated net income	**$ 7,408**	$ 6,247	**$ 15,569**	$ 13,314

	June 30 2023	June 30 2022
Segments' total assets	**$ 2,860,864**	$ 2,974,933
Adjustments [1]:		
Asset and liability management activities, including securities portfolio	**1,162,755**	1,179,629
Elimination of segment asset allocations to match liabilities	**(963,574)**	(1,106,832)
Other	**63,153**	63,876
Consolidated total assets	**$ 3,123,198**	$ 3,111,606

(1) Adjustments include consolidated income, expense and asset amounts not specifically allocated to individual business segments.

Glossary

Alt-A Mortgage – A type of U.S. mortgage that is considered riskier than A-paper, or "prime," and less risky than "subprime," the riskiest category. Typically, Alt-A mortgages are characterized by borrowers with less than full documentation, lower credit scores and higher LTVs.

Assets Under Management (AUM) – The total market value of assets under the investment advisory and/or discretion of *GWIM* which generate asset management fees based on a percentage of the assets' market values. AUM reflects assets that are generally managed for institutional, high net worth and retail clients, and are distributed through various investment products including mutual funds, other commingled vehicles and separate accounts.

Banking Book – All on- and off-balance sheet financial instruments of the Corporation except for those positions that are held for trading purposes.

Brokerage and Other Assets – Non-discretionary client assets which are held in brokerage accounts or held for safekeeping.

Committed Credit Exposure – Any funded portion of a facility plus the unfunded portion of a facility on which the lender is legally bound to advance funds during a specified period under prescribed conditions.

Credit Derivatives – Contractual agreements that provide protection against a specified credit event on one or more referenced obligations.

Credit Valuation Adjustment (CVA) – A portfolio adjustment required to properly reflect the counterparty credit risk exposure as part of the fair value of derivative instruments.

Debit Valuation Adjustment (DVA) – A portfolio adjustment required to properly reflect the Corporation's own credit risk exposure as part of the fair value of derivative instruments and/or structured liabilities.

Funding Valuation Adjustment (FVA) – A portfolio adjustment required to include funding costs on uncollateralized derivatives and derivatives where the Corporation is not permitted to use the collateral it receives.

Interest Rate Lock Commitment (IRLC) – Commitment with a loan applicant in which the loan terms are guaranteed for a designated period of time subject to credit approval.

Letter of Credit – A document issued on behalf of a customer to a third party promising to pay the third party upon presentation of specified documents. A letter of credit effectively substitutes the issuer's credit for that of the customer.

Loan-to-value (LTV) – A commonly used credit quality metric. LTV is calculated as the outstanding carrying value of the loan divided by the estimated value of the property securing the loan.

Macro Products – Include currencies, interest rates and commodities products.

Margin Receivable – An extension of credit secured by eligible securities in certain brokerage accounts.

Matched Book – Repurchase and resale agreements or securities borrowed and loaned transactions where the overall asset and liability position is similar in size and/or maturity. Generally, these are entered into to accommodate customers where the Corporation earns the interest rate spread.

Mortgage Servicing Right (MSR) – The right to service a mortgage loan when the underlying loan is sold or securitized. Servicing includes collections for principal, interest and escrow payments from borrowers and accounting for and remitting principal and interest payments to investors.

Nonperforming Loans and Leases – Includes loans and leases that have been placed on nonaccrual status, including nonaccruing loans whose contractual terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulties.

Prompt Corrective Action (PCA) – A framework established by the U.S. banking regulators requiring banks to maintain certain levels of regulatory capital ratios, comprised of five categories of capitalization: "well capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized" and "critically undercapitalized." Insured depository institutions that fail to meet certain of these capital levels are subject to increasingly strict limits on their activities, including their ability to make capital distributions, pay management compensation, grow assets and take other actions.

Subprime Loans – Although a standard industry definition for subprime loans (including subprime mortgage loans) does not exist, the Corporation defines subprime loans as specific product offerings for higher risk borrowers.

Troubled Debt Restructurings (TDRs) – Loans whose contractual terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulties. Certain consumer loans for which a binding offer to restructure has been extended are also classified as TDRs.

Value-at-Risk (VaR) – VaR is a model that simulates the value of a portfolio under a range of hypothetical scenarios in order to generate a distribution of potential gains and losses. VaR represents the loss the portfolio is expected to experience with a given confidence level based on historical data. A VaR model is an effective tool in estimating ranges of potential gains and losses on our trading portfolios.

Key Metrics

Active Digital Banking Users – Mobile and/or online active users over the past 90 days.

Active Mobile Banking Users – Mobile active users over the past 90 days.

Book Value – Ending common shareholders' equity divided by ending common shares outstanding.

Common Equity Ratio - Ending common shareholders' equity divided by ending total assets.

Deposit Spread – Annualized net interest income divided by average deposits.

Dividend Payout Ratio – Common dividends declared divided by net income applicable to common shareholders.

Efficiency Ratio – Noninterest expense divided by total revenue, net of interest expense.

Gross Interest Yield – Effective annual percentage rate divided by average loans.

Net Interest Yield – Net interest income divided by average total interest-earning assets.

Operating Margin – Income before income taxes divided by total revenue, net of interest expense.

Return on Average Allocated Capital – Adjusted net income divided by allocated capital.

Return on Average Assets – Net income divided by total average assets.

Return on Average Common Shareholders' Equity – Net income applicable to common shareholders divided by average common shareholders' equity.

Return on Average Shareholders' Equity – Net income divided by average shareholders' equity.

Risk-adjusted Margin – Difference between total revenue, net of interest expense, and net credit losses divided by average loans.

Acronyms

ABS	Asset-backed securities
AFS	Available-for-sale
ALM	Asset and liability management
ARR	Alternative reference rates
AUM	Assets under management
BANA	Bank of America, National Association
BHC	Bank holding company
BofAS	BofA Securities, Inc.
BofASE	BofA Securities Europe SA
bps	Basis points
CCAR	Comprehensive Capital Analysis and Review
CDO	Collateralized debt obligation
CECL	Current expected credit losses
CET1	Common equity tier 1
CFTC	Commodity Futures Trading Commission
CLO	Collateralized loan obligation
CLTV	Combined loan-to-value
CVA	Credit valuation adjustment
DVA	Debit valuation adjustment
ECL	Expected credit losses
EPS	Earnings per common share
ESG	Environmental, social and governance
FCA	Financial Conduct Authority
FDIC	Federal Deposit Insurance Corporation
FHA	Federal Housing Administration
FHLB	Federal Home Loan Bank
FHLMC	Freddie Mac
FICC	Fixed income, currencies and commodities
FICO	Fair Isaac Corporation (credit score)
FNMA	Fannie Mae
FTE	Fully taxable-equivalent
FVA	Funding valuation adjustment
GAAP	Accounting principles generally accepted in the United States of America
GLS	Global Liquidity Sources
GNMA	Government National Mortgage Association
G-SIB	Global systemically important bank
GWIM	Global Wealth & Investment Management
HELOC	Home equity line of credit
HQLA	High Quality Liquid Assets
HTM	Held-to-maturity
IBOR	Interbank Offered Rates
IRLC	Interest rate lock commitment
ISDA	International Swaps and Derivatives Association, Inc.
LCR	Liquidity Coverage Ratio
LHFS	Loans held-for-sale
LIBOR	London Interbank Offered Rate
LTV	Loan-to-value
MBS	Mortgage-backed securities
MD&A	Management's Discussion and Analysis of Financial Condition and Results of Operations
MLI	Merrill Lynch International
MLPCC	Merrill Lynch Professional Clearing Corp
MLPF&S	Merrill Lynch, Pierce, Fenner & Smith Incorporated
MSA	Metropolitan Statistical Area
MSR	Mortgage servicing right
NSFR	Net Stable Funding Ratio
OCI	Other comprehensive income
OREO	Other real estate owned
PCA	Prompt Corrective Action
PPP	Paycheck Protection Program
RMBS	Residential mortgage-backed securities
RSU	Restricted stock unit
RWA	Risk-weighted assets
SBA	Small Business Administration
SBLC	Standby letter of credit
SCB	Stress capital buffer
SEC	Securities and Exchange Commission
SLR	Supplementary leverage ratio
SOFR	Secured Overnight Financing Rate
TDR	Troubled debt restructuring
TLAC	Total loss-absorbing capacity
VaR	Value-at-Risk
VIE	Variable interest entity

Part II. Other Information

Bank of America Corporation and Subsidiaries

Item 1. Legal Proceedings

See Litigation and Regulatory Matters in *Note 10 – Commitments and Contingencies* to the Consolidated Financial Statements, which is incorporated by reference in this Item 1, for litigation and regulatory disclosure that supplements the disclosure in *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements of the Corporation's 2022 Annual Report on Form 10-K.

Item 1A. Risk Factors

There are no material changes from the risk factors set forth under Part 1, Item 1A. Risk Factors of the Corporation's 2022 Annual Report on Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

The table below presents share repurchase activity for the three months ended June 30, 2023. The primary source of funds for cash distributions by the Corporation to its shareholders is dividends received from its banking subsidiaries. Each of the banking subsidiaries is subject to various regulatory policies and requirements relating to the payment of dividends, including requirements to maintain capital above regulatory minimums. All of the Corporation's preferred stock outstanding has preference over the Corporation's common stock with respect to payment of dividends.

(Dollars in millions, except per share information; shares in thousands)	Total Common Shares Repurchased (1, 2)	Weighted-Average Per Share Price	Total Shares Purchased as Part of Publicly Announced Programs (2)	Remaining Buyback Authority Amounts (3)
April 1 - 30, 2023	3,346	$ 29.95	3,339	$ 14,101
May 1 - 31, 2023	9,239	27.92	9,130	14,101
June 1 - 30, 2023	6,783	28.88	6,753	14,101
Three months ended June 30, 2023	**19,368**	**28.61**	**19,222**	

(1) Includes 146 thousand shares of the Corporation's common stock acquired by the Corporation in connection with satisfaction of tax withholding obligations on vested restricted stock or restricted stock units and certain forfeitures and terminations of employment-related awards and for potential re-issuance to certain employees under equity incentive plans.

(2) In October 2021, the Corporation's Board of Directors (Board) authorized the repurchase of up to $25 billion of common stock over time (October 2021 Authorization). Additionally, the Board authorized repurchases to offset shares awarded under equity-based compensation plans. During the three months ended June 30, 2023, pursuant to the Board's authorizations, the Corporation repurchased 19 million shares, or $550 million, of its common stock, predominantly offsetting shares awarded under equity-based compensation plans. For more information, see Capital Management - CCAR and Capital Planning in the MD&A on page 22 and *Note 11 – Shareholders' Equity* to the Consolidated Financial Statements.

(3) Remaining Buyback Authority Amounts represents the remaining buyback authority of the October 2021 Authorization. Excludes repurchases to offset shares awarded under equity-based compensation plans.

The Corporation did not have any unregistered sales of equity securities during the three months ended June 30, 2023.

Item 5. Other Information

Trading Arrangements

During the fiscal quarter ended June 30, 2023, none of the Corporation's directors or officers (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934, as amended) adopted or terminated a Rule 10b5-1 trading arrangement or non-Rule 10b5-1 trading arrangement (in each case, as defined in Item 408(a) of Regulation S-K) for the purchase or sale of the Corporation's securities.

Disclosure Pursuant to Section 13(r) of the Securities Exchange Act of 1934

Pursuant to Section 13(r) of the Exchange Act, an issuer is required to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with individuals or entities designated pursuant to certain Executive Orders. Disclosure may be required even where the activities, transactions or dealings were conducted in compliance with applicable law. Except as set forth below, as of the date of this Quarterly Report on Form 10-Q, the Corporation is not aware of any other activity, transaction or dealing by any of its affiliates during the quarter ended June 30, 2023 that requires disclosure under Section 13(r) of the Exchange Act.

During the second quarter of 2023, Bank of America, National Association (BANA), a U.S. subsidiary of Bank of America Corporation, received two authorized wire deposits pursuant to a general license issued by the U.S. Department of the Treasury's Office of Foreign Assets Control regarding the provision of legal services for or on behalf of persons designated pursuant to Executive Order 13224. One of the wire deposits totaling $200,000 was processed by BANA on behalf of a U.S. client into its account at BANA, and the other wire deposit totaling GBP 1,600,000 was received by BANA on behalf of the same U.S. client, but has since been cancelled by the originating party and is in the process of being returned, including any interest due.

There was no measurable gross revenue or net profit to the Corporation relating to these wire deposits. The Corporation may in the future engage in similar activities for its clients to the extent permitted by U.S law.

Item 6. Exhibits

Exhibit No.	Description	Notes	Incorporated by Reference			
			Form	Exhibit	Filing Date	File No.
3.1	Restated Certificate of Incorporation, as amended and in effect on the date hereof		10-Q	3.1	4/29/22	1-6523
3.2	Amended and Restated Bylaws of the Corporation as in effect on the date hereof		10-K	3.2	2/22/23	1-6523
10.1	Bank of America Corporation Equity Plan (formerly known as the Key Employee Equity Plan), as amended and restated effective April 25, 2023	1	8-K	10.1	4/28/23	1-6523
22	Subsidiary Issuers of Guaranteed Securities		10-K	22	2/22/23	1-6523
31.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	2				
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	2				
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	3				
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	3				
101.INS	Inline XBRL Instance Document	4				
101.SCH	Inline XBRL Taxonomy Extension Schema Document	2				
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	2				
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	2				
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	2				
101.DEF	Inline XBRL Taxonomy Extension Definitions Linkbase Document	2				
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)					

(1) Exhibit is a management contract or compensatory plan or arrangement.
(2) Filed herewith.
(3) Furnished herewith. This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section. Such exhibit shall not be deemed incorporated into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.
(4) The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.

Signature

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Bank of America Corporation
Registrant

Date: July 31, 2023

/s/ Rudolf A. Bless
Rudolf A. Bless
Chief Accounting Officer