Morgan Stanley Bank, N.A.

Unaudited Quarterly Report
As of and for the quarter ended March 31, 2023

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Available Information

This Quarterly Report is available at *www.morganstanley.com/about-us-ir/subsidiaries.* In addition, Morgan Stanley (the "Parent") and certain of our affiliates provide annual and periodic reports relating to their businesses and activities, which are available at *www.morganstanley.com/about-us-ir*. Information contained on such website is not part of, nor is it incorporated by reference into, this Quarterly Report.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Introduction

Morgan Stanley Bank, N.A., an indirect wholly owned subsidiary of the Parent, is primarily a wholesale commercial bank that offers commercial lending products, certain retail securities-based lending products, certain derivative products, and deposit products. Unless the context otherwise requires, the terms "Bank," "MSBNA," "us," "we" and "our" mean Morgan Stanley Bank, N.A., and "Morgan Stanley" and the "Firm" mean the Parent and its consolidated subsidiaries, including the Bank. See the "Glossary of Common Terms and Acronyms" for the definition of certain terms and acronyms used throughout this Quarterly Report.

A description of the business lines, investment portfolio, deposit taking and other activities is as follows:

The Bank's lending activities include lending to corporations for specific purposes, such as financing acquisitions and normal operating activities, secured lending facilities, commercial real estate lending, as well as extending securities-based financing to customers.

The Bank's loan portfolio consists of the types of loans listed below.

Corporate. Corporate loans comprise relationship and event-driven loans and lending commitments supporting general and event-driven financing needs for the Bank's institutional clients, which typically consist of revolving lines of credit, term loans and bridge loans; may have varying terms; may be senior or subordinated; may be secured or unsecured; are generally contingent upon representations, warranties and contractual conditions applicable to the borrower; and may be syndicated or hedged. Relationship loans and lending commitments are extended to select institutional clients, primarily for general corporate purposes and generally with the intent to hold for the foreseeable future. Event-driven loans and lending commitments are extended in connection with specific client transactions.

Secured Lending Facilities. Secured lending facilities include loans provided to clients which are collateralized by various assets, including residential and commercial real estate mortgage loans, investor commitments for capital calls, corporate loans and other assets. These facilities generally provide for overcollateralization. Credit risk with respect to these loans and lending commitments arises from the failure of a borrower to perform according to the terms of the loan agreement and/or a decline in the underlying collateral value. The Bank monitors collateral levels against the requirements of lending agreements.

Commercial Real Estate. Commercial real estate loans are primarily senior, secured by underlying real estate and typically in term loan form. Commercial real estate loans include owner-occupied loans and income-producing loans.

Securities-based lending and Other. Securities-based lending and Other includes loans that allow clients to borrow money against the value of qualifying securities, generally for any suitable purpose other than purchasing, trading, or carrying securities or refinancing margin debt. The majority of these loans are structured as revolving lines of credit. Also included here are Corporate loans purchased in the secondary market.

For a further discussion of our credit risks, see "Quantitative and Qualitative Disclosures about Risk—Credit Risk." For a further discussion about loans and lending commitments, see Note 3 to the financial statements in the 2022 Annual Report.

Equity Financing. We provide financing services to our clients active in the equity markets through products including margin lending and swaps. Results from this business are largely driven by the difference between financing income earned and financing costs incurred, which are reflected in net interest for lending products, and in non-interest revenues for derivative products.

Other Activities. The Bank enters into derivative transactions with external counterparties and affiliates. Derivative transactions with external counterparties are primarily foreign currency swap and forward contracts with institutional clients that prefer or are required to face a rated U.S. bank counterparty. The Bank offsets the risk of these transactions by entering into back-to-back "mirror" derivative instruments with affiliates. The Bank also enters into other derivative transactions with affiliates primarily for hedging purposes, and the derivative instruments used for hedging primarily include interest rate and CDS. CDS are used to hedge the credit risk on certain investments, loan portfolios, and letters of credit; the Bank is not a net seller of credit protection. For further information about our derivative instruments, see Note 11 to the financial statements.

Investment Portfolio. The Bank maintains an investment portfolio to serve as a storehouse of liquidity to satisfy the Bank's current, projected, and contingent funding needs; to act as the primary means to manage the Bank's current and projected interest rate risk profile; and to produce interest income, while maintaining acceptable asset quality, diversification and risk profile. The investment portfolio consists of cash, investment securities, and securities held under repurchase agreements. Our investment securities consist primarily of U.S. Treasuries and agency mortgage-backed securities. For further information about our investment portfolio, see Note 5 to the financial statements.

The Bank provides liquidity to clients in fixed income products by purchasing securities under agreements to resell. These securities are principally securitized products and corporate credit securities.

Our trading activities are primarily comprised of derivatives described above, as well as Residential Real Estate and Corporate loans purchased in the secondary market.

Deposit Taking. We are one of Morgan Stanley's primary deposit-taking entities, along with our affiliated U.S. national bank, MSPBNA. Deposits are the primary source of funding for our assets. We source deposits through clients of Morgan Stanley's Wealth Management segment via affiliated entities, as well as through unaffiliated third-parties, primarily through "sweep" programs.

We also issue time deposits in the form of brokered CDs, substantially all of which are in FDIC-insurable amounts and distributed through third-party broker-dealers and MS&Co. Most of our CDs carry a fixed rate, and we also issue certain CDs that are structured in nature (e.g., performance may be linked to the performance of certain market indices). Deposits are primarily interest bearing.

For further information about our deposits, including the sources and types of our deposits, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Balance Sheet—Deposits" and Note 9 to the financial statements.

The results of operations in the past have been, and in the future may continue to be, materially affected by: competition; risk factors; legislative, legal and regulatory developments; and other factors. These factors also may have an adverse impact on our ability to achieve our strategic objectives. Additionally, the discussion of our results of operations herein may contain forward-looking statements. These statements, which reflect management's beliefs and expectations, are subject to risks and uncertainties that may cause actual results to differ materially. For a discussion of the risks and uncertainties that may affect our future results, see "Forward-Looking Statements," "Business—Competition," "Business—Supervision and Regulation" and "Risk Factors" in the 2022 Annual Report and "Liquidity and Capital Resources—Regulatory Requirements" herein.

Executive Summary

Overview of Financial Results

	Three Months Ended March 31,		
$ in millions	**2023**	2022	% Change
Interest income	**$ 2,096**	$ 833	**152 %**
Interest expense	**758**	33	**N/M**
Net interest	**1,338**	800	**67 %**
Non-interest revenues			
Fee income	**284**	180	**58 %**
Gains and losses on financial assets and liabilities[1]	**266**	136	**96 %**
Other	**43**	41	**5 %**
Total non-interest revenues	**593**	357	**66 %**
Net revenues	**1,931**	1,157	**67 %**
Provision for credit losses	**142**	1	**N/M**
Non-interest expenses			
Compensation and benefits	**32**	27	**19 %**
General and administrative	**211**	216	**(2)%**
FDIC and regulatory assessments	**26**	19	**37 %**
Total non-interest expenses[2]	**269**	262	**3 %**
Income before provision for income taxes	**1,520**	894	**70 %**
Provision for income taxes	**349**	207	**69 %**
Net income	**$ 1,171**	$ 687	**70 %**

1. Includes net gains and losses from derivatives, loans, lending commitments, and hedges, all of which are primarily accounted for at fair value; also includes gains realized from the sale of investment securities.
2. Non-interest expenses are primarily influenced by levels of business activity, headcount and compensation. General and administrative expenses include employment related costs of employees of affiliates pursuant to Service Level Agreements. The above item also includes brokerage and clearing fees, and non-compensation expenses charged by affiliates and vendors who provide services to us pursuant to Service Level Agreements.

Net Income

Net Interest

Net interest revenues of $1,338 million in the quarter ended March 31, 2023 ("current quarter") increased 67% compared with the quarter ended March 31, 2022 ("prior year quarter"), primarily due to the net effect of higher interest rates, partially offset by the impact of a reduction in brokerage sweep deposits in excess of our expectations.

The level and pace of interest rate changes and other macroeconomic factors continue to impact client demand for loans, client preferences for cash allocation to other products and the pace of reallocation of client balances, resulting in changes in the deposit mix and associated interest expense. If these trends persist, net interest income may continue to be impacted in future periods.

Non-interest Revenues

Non-interest revenues of $593 million in the current quarter increased 66% compared with the prior year quarter, primarily due to growth in equity derivatives, and higher revenues earned from affiliated entities to compensate the Bank for relationship priced loans granted to their clients.

Provision for Credit Losses

The Provision for credit losses on loans and lending commitments of $142 million in the current quarter was primarily related to a deterioration in both our expectations of commercial real estate borrowers and the macroeconomic outlook. The Provision for credit losses on loans and lending commitments was $1 million in the prior year quarter, primarily driven by portfolio growth.

For further information on the Provision for credit losses, see "Credit Risk" herein.

Non-interest Expenses

Non-interest expenses of $269 million in the current quarter increased 3% compared with the prior year quarter. The main drivers of the above increase were:

- FDIC and regulatory assessments increased primarily due to an increase in assessment rate.
- Compensation and benefits expenses increased primarily driven by the impact of higher headcount.
- The above increases were partially offset by lower General and administrative expenses, primarily due to a reduction in brokerage sweep deposit expenses.

Income Taxes

The Bank's effective tax rate of 23.0% for the current quarter was relatively unchanged from 23.2% for the prior year quarter.

Economic and Market Conditions

The global economic and geopolitical environment continues to be characterized by elevated inflation, rising interest rates and volatility in global financial markets and deterioration in the macroeconomic outlook. This environment has impacted our businesses, as discussed further in "Overview of Financial Results" herein, and, to the extent that it continues to deteriorate, could adversely impact client confidence and related activities. In addition to the aforementioned conditions, certain financial institutions have recently come under significant stress. While the full impact of these events in the U.S. or global banking sector remains uncertain, they have not significantly impacted our results or financial condition. For more information on economic and market conditions and their potential effects on our future results, refer to "Risk Factors" and "Forward-Looking Statements" in the 2022 Annual Report.

Following the recent failure of certain financial institutions and resulting losses to the FDIC's Deposit Insurance Fund, the FDIC approved a notice of proposed rulemaking on May 11, 2023 which would implement a special assessment to recover the cost associated with protecting uninsured depositors. Under the proposed rule, the base for the special assessment would be equal to an insured depository institution's ("IDI") estimated uninsured deposits reported as of December 31, 2022, adjusted to exclude the first $5 billion which would be applied collectively to the Bank and to our affiliated U.S. national bank, MSPBNA. The FDIC is proposing a special assessment at an annual rate of approximately 12.5 basis points over eight quarters subject to change depending on any adjustments to the loss estimate, mergers, failures, or amendments to reported estimates of uninsured deposits. The Bank continues to assess the impact of the special assessment to our future operating results and expects to record the impact when the final rule is enacted.

Accounting Development Updates

The Financial Accounting Standards Board has issued certain accounting updates, which we have determined to be either not applicable or to not have a material impact on our financial condition or results of operations upon adoption.

Critical Accounting Estimates

Our financial statements are prepared in accordance with U.S. GAAP, which requires us to make estimates and assumptions (see Note 1 to the financial statements). We believe that of our significant accounting policies (see Note 2 to the financial statements in the 2022 Annual Report and Note 2 to the financial statements), the allowance for credit losses, fair value of financial instruments and income taxes policies involve a higher degree of judgment and complexity. For a further discussion about our critical accounting policies, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates" in the 2022 Annual Report.

Liquidity and Capital Resources

Our liquidity and capital policies are established and maintained by the Bank's senior management and Risk Committee ("Bank RC"), with oversight by the Bank's Board of Directors ("Board") and Risk Committee of the Board ("BRC"). Through various risk and control committees, senior management reviews business performance relative to these policies, monitors the availability of alternative sources of financing, and oversees the liquidity, interest rate and currency sensitivity of our asset and liability position. The Bank's Treasury department, the Bank's RC, the Bank's Asset/Liability Committee, and the Bank's other committees and control groups assist in evaluating, monitoring and managing the impact that the Bank's business activities have on the Bank's balance sheet, liquidity and capital structure. Liquidity and capital matters are reported regularly to the Board and the BRC.

Balance Sheet

We monitor and evaluate the composition and size of our balance sheet on a regular basis. Our balance sheet management process includes quarterly planning, product-specific thresholds, monitoring of product-specific usage versus key performance metrics and new business impact assessments.

We monitor balance sheet utilization and review variances resulting from business activity and market fluctuations. On a regular basis, we review current performance versus established thresholds and assess balance sheet allocations versus performance and business requirements. We also monitor key metrics, including asset and liability size and capital usage.

Total Assets

$ in millions		At March 31, 2023		At December 31, 2022
Assets				
Cash and cash equivalents	$	**25,501**	$	28,457
Trading assets at fair value		**18,445**		12,975
Investment securities:				
Available for sale securities at fair value		**48,126**		48,308
Held-to-maturity securities at cost		**25,338**		25,584
Securities purchased under agreements to resell		**4,652**		4,488
Loans, before ACL:				
Corporate		**8,352**		6,949
Secured lending facilities		**38,409**		37,289
Commercial real estate		**9,849**		9,782
Residential real estate		**1,033**		718
Securities-based lending and other		**21,731**		22,918
Total loans, before ACL		**79,374**		77,656
Allowance for credit losses		**(529)**		(468)
Total loans, net of ACL		**78,845**		77,188
Affordable housing tax credit investments		**898**		922
Other assets[1]		**4,040**		3,441
Total assets	$	**205,845**	$	201,363

1. Other assets primarily include receivables from customers and affiliates, deferred tax assets, loans to affiliate, as well as investments in the Federal Reserve Bank of New York and the Federal Home Loan Bank of New York.

Total assets increased to $206 billion at March 31, 2023, compared with $201 billion at December 31, 2022, driven by increases in Trading assets and Loans, partially offset by decreases in Cash and cash equivalents.

Liquidity Risk Management Framework

The core components of our Liquidity Risk Management Framework are the Required Liquidity Framework, Liquidity Stress Tests and Liquidity Resources, which support our target liquidity profile. For a further discussion about the Bank's Required Liquidity Framework and Liquidity Stress Tests, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Liquidity Risk Management Framework" in the 2022 Annual Report.

At March 31, 2023 and December 31, 2022, we maintained sufficient Liquidity Resources to meet current and contingent funding obligations as modeled in our Liquidity Stress Tests.

Liquidity Resources

We maintain sufficient liquidity resources, which consist of HQLA and cash deposits with banks ("Liquidity Resources") to cover daily funding needs and to meet strategic liquidity targets sized by the Required Liquidity Framework and Liquidity Stress Tests. We actively manage the amount of our Liquidity Resources considering the following components: balance sheet size and composition; funding needs in a stressed environment; liquidity requirements; regulatory requirements; and collateral requirements.

The amount of Liquidity Resources we hold is based on our risk appetite and is calibrated to meet various internal and regulatory requirements and to fund prospective business activities. The Total HQLA values in the tables immediately following are different from Eligible HQLA, which, in accordance with the LCR rule, also takes into account certain regulatory weightings and other operational considerations.

Liquidity Resources by Type of Investment

	Average Daily Balance Three Months Ended			
$ in millions		March 31, 2023		December 31, 2022
Cash deposits with central banks	$	**18,344**	$	17,255
Unencumbered HQLA securities[1]:				
U.S. government obligations		**37,284**		36,783
U.S. agency and agency mortgage-backed securities		**29,613**		28,625
Total HQLA[1]	$	**85,241**	$	82,663
Cash deposits with banks (non-HQLA)		**—**		—
Total Liquidity Resources	$	**85,241**	$	82,663

1. HQLA is presented prior to applying weightings.

Liquidity Resources may fluctuate from period to period based on the overall size and composition of our balance sheet, the maturity profile of our funding and estimates of funding needs in a stressed environment, among other factors.

Regulatory Liquidity Framework

Liquidity Coverage Ratio and Net Stable Funding Ratio

We are required to maintain a minimum LCR and NSFR of 100%. The LCR requires that we have sufficient Eligible HQLA to cover net cash outflows arising from significant stress over 30 calendar days, thus promoting the short-term resilience of our liquidity risk profile. In determining Eligible HQLA for LCR purposes, weightings (or asset haircuts) are applied to HQLA. The NSFR requires large banking organizations to maintain sufficiently stable sources of funding over a one-year time horizon.

As of March 31, 2023, we were compliant with the minimum LCR and NSFR requirements of 100%.

Funding Management

We manage our funding in a manner that reduces the risk of disruption to our operations. We pursue a strategy of diversification of retail and wholesale funding sources and attempt to ensure the tenor of our liabilities equals or exceeds the holding period of assets being financed.

We fund our balance sheet through diverse sources. These sources include our equity capital, deposits, bank notes and borrowings. We have active financing programs for both standard and structured products.

Unsecured Financing

For a discussion of our unsecured financing activities, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Funding Management—Unsecured Financing" in the 2022 Annual Report.

Deposits

$ in millions		At March 31, 2023		At December 31, 2022
Savings and demand deposits:				
Brokerage sweep deposits	$	**89,528**	$	100,572
Savings and other[1]		**63,158**		56,342
Total savings and demand deposits		**152,686**		156,914
Time deposits[2,3]		**26,591**		20,442
Total[4]	$	**179,277**	$	177,356
Annualized weighted average cost of deposits[5]				
Period end		**2.02 %**		1.60 %
Period average for three months ended		**1.86 %**		1.35 %

1. Includes deposits from the Parent and affiliates, see Note 10 to the financial statements.
2. Includes Structured CDs at fair value of $3.2 billion as of March 31, 2023 and December 31, 2022.
3. The contractual liability to depositors was $26.6 billion and $20.4 billion at March 31, 2023 and December 31, 2022, respectively.
4. Total deposits subject to FDIC insurance at March 31, 2023 and December 31, 2022 were $131.5 billion and $124.8 billion, respectively.
5. Annualized weighted average represents the total annualized weighted average cost of the various deposit products, excluding the effect of related hedging derivatives. The period end cost of deposits is based upon balances and rates as of March 31, 2023 and December 31, 2022. The period average is based on daily balances and rates for the period.

Deposits are primarily sourced from our clients and are considered to have stable, low-cost funding characteristics relative to other sources of funding. Each category of deposits presented above has a different cost profile and clients may respond differently to changes in interest rates and other macroeconomic conditions. The increase in total deposits in the current quarter was primarily driven by Savings and other, as well as Time deposits, partially offset by a continued reduction in Brokerage sweep deposits due to net outflows to alternative cash-equivalent and long-term products.

Time Deposits by Remaining Maturity at March 31, 2023

$ in millions		
2023	$	**11,809**
2024		**8,560**
2025		**2,981**
2026		**1,212**
2027		**1,094**
Thereafter		**935**
Total	$	**26,591**

Time Deposits of $27 billion as of March 31, 2023 increased from $20 billion at December 31, 2022 primarily as a result of CD issuances.

We believe that accessing funding through multiple distribution channels provides consistent access to funding markets. In addition, the issuance of time deposits with longer dated contractual maturities allows us to manage the maturity profile of these time deposits, mitigate liquidity risk and maximize diversification through institutional and retail clients.

The availability and cost of financing to us can vary depending on market conditions (particularly with respect to interest rates), the volume of certain trading and lending activities, our credit ratings and the overall availability of credit. We also engage in, and may continue to engage in, repurchases of our borrowings in the ordinary course of business.

For further information on Deposits, see Note 9 to the financial statements.

Credit Ratings

Our credit ratings are one of the factors in the cost and availability of financing and can have an impact on certain trading income, particularly in those businesses where longer-term counterparty performance is a key consideration, such as certain OTC derivative transactions. When determining credit ratings, rating agencies consider both company-specific and industry-wide factors. See also "Risk Factors—Liquidity Risk" in the 2022 Annual Report.

MSBNA Issuer Ratings at April 28, 2023

	Short-Term Debt	Long-Term Debt	Rating Outlook
Fitch Ratings, Inc.	**F1+**	**AA-**	**Stable**
Moody's Investors Service, Inc.	**P-1**	**Aa3**	**Stable**
S&P Global Ratings	**A-1**	**A+**	**Stable**

Capital Management

We view capital as an important source of financial strength and actively manage our capital position based upon, among other things, business opportunities, risks, capital availability and rates of return together with internal capital policies and regulatory requirements. In the future, we may expand or contract our capital base to address the changing needs of our businesses.

The Bank is subject to various general regulatory policies and requirements relating to the payment of dividends, including requirements to maintain adequate capital above regulatory minimums. The OCC is authorized to determine under certain circumstances relating to the financial condition of the Bank that the payment of dividends would be an unsafe or unsound practice and to prohibit payment thereof. Federal regulatory authorities have indicated that paying dividends that deplete a bank's capital base to an inadequate level would be an unsafe and unsound banking practice and that banking organizations should generally pay dividends only out of current operating earnings.

The Bank may not declare a dividend if the total amount of all dividends, including the proposed dividend, declared by the Bank in any calendar year exceeds the total of the Bank's retained net income of that year to date, combined with its retained net income of the preceding two years, unless the dividend is approved by the OCC. Federal law also prohibits national banks from paying dividends that would be greater than the bank's undivided profits.

There were no cash dividends paid during the current or prior year quarters.

Regulatory Requirements

Regulatory Capital Framework

The OCC establishes capital requirements for us, including "well-capitalized" standards, and evaluates our compliance with such capital requirements. Regulatory capital requirements established by the OCC are largely based on the Basel III capital standards established by the Basel Committee and also implement certain provisions of the Dodd-Frank Act. Failure to meet minimum capital requirements can initiate certain mandatory and discretionary actions by regulators that, if undertaken, could have a direct material effect on the Bank's financial statements. Under FDICIA capital adequacy guidelines and regulatory framework for prompt corrective action (the "PCA Framework"), the Bank must meet specific capital guidelines that involve quantitative measures of the Bank's assets, liabilities and certain off-balance sheet items as calculated under regulatory accounting practices. For additional information on our regulatory capital requirements, see Note 14 to the financial statements.

Regulatory Capital Requirements

We are required to maintain minimum risk-based and leverage-based capital. For more information, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Regulatory Capital Requirements" in the 2022 Annual Report.

Risk-Based Regulatory Capital. Risk-based capital ratio requirements apply to Common Equity Tier 1 capital, Tier 1 capital and Total capital (which includes Tier 2 capital), each as a percentage of RWA, and consist of regulatory minimum required ratios plus our capital buffer requirement. Capital requirements require certain adjustments to, and deductions from, capital for purposes of determining these ratios.

Capital Buffer Requirements

The capital buffer requirement represents the amount of Common Equity Tier 1 capital we must maintain above the minimum risk-based capital requirements in order to avoid restrictions on our ability to make capital distributions, including the payment of dividends, and to pay discretionary bonuses to executive officers. Our capital buffer requirements computed under the standardized approaches for calculating credit risk and market risk RWAs ("Standardized Approach") and computed under the applicable advanced approaches for calculating credit risk, market risk and operational risk RWAs ("Advanced Approach") is equal to the sum of our 2.5% capital conservation buffer and CCyB. The CCyB can be set up to 2.5% but is currently set by U.S. banking agencies at zero.

Risk-Based Regulatory Capital Ratio Requirements

		At March 31, 2023 and December 31, 2022	
	Regulatory Minimum	Standardized	Advanced
Required ratios[1]			
Common Equity Tier 1 capital ratio	**4.5 %**	**7.0 %**	**7.0 %**
Tier 1 capital ratio	**6.0 %**	**8.5 %**	**8.5 %**
Total capital ratio	**8.0 %**	**10.5 %**	**10.5 %**

1. Required ratios represent the regulatory minimum plus the capital buffer requirement.

Our risk-based capital ratios are computed under each of (i) the Standardized Approach and (ii) the Advanced Approach. The credit risk RWA calculations between the two approaches differ in that the Standardized Approach requires calculation of RWA using prescribed risk weights and exposure methodologies, whereas the Advanced Approach utilizes models to calculate exposure amounts and risk weights. At March 31, 2023 and December 31, 2022, the differences between the actual and required ratios were lower under the Standardized Approach.

Leverage-Based Regulatory Capital. Leverage-based capital requirements include a minimum Tier 1 leverage ratio of 4% and SLR of 3%.

CECL Deferral. Beginning on January 1, 2020, we elected to defer the effect of the adoption of CECL on our risk-based and leverage-based capital amounts and ratios, as well as our RWA, adjusted average assets and supplementary leverage exposure calculations, over a five-year transition period. The deferral impacts began to phase in at 25% per year from January 1, 2022 and are phased-in at 50% from January 1, 2023. The deferral impacts will become fully phased-in beginning on January 1, 2025.

Well-Capitalized Requirements. FDICIA requires the federal bank regulatory agencies to take prompt corrective action ("PCA") in respect of IDIs that do not meet specified capital requirements. FDICIA establishes five capital categories for FDIC-insured banks: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized.

In addition, under the PCA Framework applicable to us, we must also meet the quantitative capital ratio requirements for a well-capitalized IDI; these are shown in the table below.

Our capital levels and PCA classification are also subject to qualitative judgments by the regulators about components of capital, risk weightings and other factors. Failure to comply with the capital requirements, including a breach of the buffers described above, would result in restrictions being imposed by our regulators.

Regulatory Capital Ratios

$ in millions	Well-Capitalized Requirements[1]	Required Ratio[2]	At March 31, 2023	At December 31, 2022
Risk-based capital - Standardized				
Common Equity Tier 1 capital			$ 21,485	$ 20,043
Tier 1 capital			21,485	20,043
Total capital			22,221	20,694
Total RWA			99,818	97,931
Common Equity Tier 1 capital ratio	6.5 %	7.0 %	21.5 %	20.5 %
Tier 1 capital ratio	8.0 %	8.5 %	21.5 %	20.5 %
Total capital ratio	10.0 %	10.5 %	22.3 %	21.1 %

$ in millions	Well-Capitalized Requirements[1]	Required Ratio[2]	At March 31, 2023	At December 31, 2022
Risk-based capital - Advanced				
Common Equity Tier 1 capital			$ 21,485	$ 20,043
Tier 1 capital			21,485	20,043
Total capital			21,873	20,421
Total RWA			75,466	73,495
Common Equity Tier 1 capital ratio	6.5 %	7.0 %	28.5 %	27.3 %
Tier 1 capital ratio	8.0 %	8.5 %	28.5 %	27.3 %
Total capital ratio	10.0 %	10.5 %	29.0 %	27.8 %

$ in millions	Well-Capitalized Requirements[1]	Required Ratio[2]	At March 31, 2023	At December 31, 2022
Leverage-based capital				
Adjusted average assets[3]			$ 205,393	$ 197,711
Tier 1 leverage ratio	5.0 %	4.0 %	10.5 %	10.1 %
Supplementary leverage exposure[4]			$ 257,940	$ 248,860
SLR	6.0 %	3.0 %	8.3 %	8.1 %

1. The requirements to remain "well-capitalized" under the PCA framework.
2. Required ratios are inclusive of any buffers applicable as of the date presented.
3. Adjusted average assets represents the denominator of the Tier 1 leverage ratio and is composed of the average daily balance of consolidated on-balance sheet assets for the quarters ending on the respective balance sheet dates, reduced by intangible assets, certain deferred tax assets and other capital deductions.
4. Supplementary leverage exposure is the sum of Adjusted average assets used in the Tier 1 leverage ratio and other adjustments, primarily: (i) for derivatives, potential future exposure and the effective notional principal amount of sold credit protection offset by qualifying purchased credit protection; (ii) the counterparty credit risk for repo-style transactions; and (iii) the credit equivalent amount for off-balance sheet exposures.

Regulatory Capital

$ in millions	At March 31, 2023	At December 31, 2022	Change
Common Equity Tier 1 Capital			
Common stock and surplus	$ 8,005	$ 8,005	$ —
Retained earnings	15,539	14,381	1,158
AOCI	(2,039)	(2,369)	330
Other adjustments and deductions[1]	(20)	26	(46)
Total Common Equity Tier 1 capital and Total Tier 1 capital	$ 21,485	$ 20,043	$ 1,442
Standardized Tier 2 capital			
Eligible ACL	$ 736	$ 651	$ 85
Total Standardized Tier 2 capital	$ 736	$ 651	$ 85
Total Standardized capital	$ 22,221	$ 20,694	$ 1,527
Advanced Tier 2 capital			
Eligible credit reserves	$ 388	$ 378	$ 10
Total Advanced Tier 2 capital	$ 388	$ 378	$ 10
Total Advanced capital	$ 21,873	$ 20,421	$ 1,452

1. Other adjustments and deductions used in the calculation of Common Equity Tier 1 capital primarily includes net after-tax DVA and the credit spread premium over risk-free rate for derivative liabilities.

RWA Rollforward

	Three Months Ended March 31, 2023	
$ in millions	Standardized	Advanced
Credit risk RWA		
Balance at December 31, 2022	$ 96,715	$ 64,154
Change related to the following items		
Derivatives	623	637
Securities financing transactions	(6)	3
Investment securities	(462)	(220)
Commitments, guarantees and loans	968	793
Equity investments	—	(1)
Other credit risk	1,065	1,060
Total change in credit risk RWA	$ 2,188	$ 2,272
Balance at March 31, 2023	$ 98,903	$ 66,426
Market risk RWA		
Balance at December 31, 2022	$ 1,216	$ 1,216
Change related to the following items		
Regulatory VaR	(11)	(11)
Regulatory stressed VaR	(39)	(39)
Specific risk	(251)	(251)
Total change in market risk RWA	$ (301)	$ (301)
Balance at March 31, 2023	$ 915	$ 915
Operational risk RWA		
Balance at December 31, 2022	N/A	$ 8,125
Change in operational risk RWA	N/A	—
Balance at March 31, 2023	N/A	8,125
Total RWA	$ 99,818	$ 75,466

Regulatory VaR—VaR for regulatory capital requirements

In the current quarter, Credit risk RWA increased under both the Standardized and Advanced Approaches, primarily driven by deferred tax assets, Corporate facilities, and equity Derivatives, partially offset by a decrease in Investment securities.

Market risk RWA decreased in the current quarter under both the Standardized and Advanced Approaches, primarily driven by a reduction in Corporate loans purchased in the secondary market.

Capital Plans and Stress Tests

Our capital planning process and stress tests are designed to identify and measure material risks associated with our business activities, including market risk, credit risk and operational risk. Our capital planning process incorporates an internal capital adequacy assessment to ensure that we are appropriately capitalized relative to the risks in our businesses. Our stress tests incorporate our internally developed severely adverse scenario and are designed to capture our specific vulnerabilities and risks.

We were not required by our primary regulators to conduct the annual company-run stress test under the Dodd-Frank Act in 2023.

Regulatory Developments and Other Matters

Replacement of London Interbank Offered Rate and Replacement or Reform of Other Interest Rate Benchmarks

Central banks around the world, including the Federal Reserve, have sponsored initiatives in recent years to replace LIBOR and replace or reform certain other interest rate benchmarks (collectively, the "IBORs"). A transition away from use of the IBORs to alternative rates and other potential interest rate benchmark reforms is underway and is a multi year initiative.

The publication of most non-U.S. dollar LIBOR rates ceased as of the end of December 2021, although certain Sterling and Yen LIBOR rates have been published for a limited period following this date on the basis of a "synthetic" methodology (known as "synthetic LIBOR"). The synthetic Yen LIBOR rates ceased as of the end of December 2022 and following the announcement of the U.K. Financial Conduct Authority ("UK FCA"), which regulates the publisher of LIBOR (ICE Benchmark Administration), publication of the one- and six-month tenors of synthetic Sterling LIBOR ceased at the end of March 2023 and publication of the three-month synthetic Sterling LIBOR will cease at the end of March 2024.

U.S. dollar LIBOR rates are expected to cease being published as of the end of June 2023. On March 15, 2022 the U.S. enacted federal legislation that is intended to minimize legal and economic uncertainty following U.S. dollar LIBOR's cessation by replacing LIBOR references in certain U.S. law-governed contracts under certain circumstances with a SOFR-based rate identified in a Federal Reserve rule plus a statutory spread adjustment. While some states have already adopted LIBOR legislation, the federal legislation expressly preempts any provision of any state or local law, statute, rule, regulation or standard. In addition, the UK FCA has announced that it will require ICE Benchmark Administration to continue the publication of the one-, three- and six-month tenors of U.S. dollar LIBOR on a synthetic basis until the end of September 2024. This may result in certain non-U.S. law-governed contracts and U.S. law-governed contracts not covered by the federal legislation to remain on synthetic U.S. dollar LIBOR until the end of this period.

As of March 31, 2023, our LIBOR-referenced contracts were primarily concentrated in loans and, to a lesser extent, derivative contracts. A significant majority of our non-derivative contracts, and a majority of our derivative contracts, contain fallback provisions or otherwise have an expected path that will allow for the transition to an alternative reference rate upon the cessation of the applicable LIBOR rate.

While we have made substantial progress in the transition away from the IBORs, we nonetheless currently remain party to a significant number of U.S. dollar LIBOR-linked contracts. For the limited number of U.S. dollar LIBOR-linked contracts without a current market standard fallback, or to which the federal legislation does not apply, we are actively developing appropriate transition plans in light of the planned June 30, 2023 cessation date for the remaining U.S. dollar LIBOR tenors.

Our IBOR transition plan is overseen by a global steering committee, with senior management oversight, and we continue to execute against the Morgan Stanley IBOR transition plan to complete the transition to alternative reference rates.

See also "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Regulatory Requirements—Regulatory Developments and Other Matters" and "Risk Factors—Risk Management" in the 2022 Annual Report for a further discussion of the replacement of the IBORs and/or reform of other interest rate benchmarks and related risks.

Quantitative and Qualitative Disclosures about Risk

Management believes effective risk management is vital to the success of our business activities. For a discussion of our Risk Governance Framework and risk management functions, see "Quantitative and Qualitative Disclosures about Risk—Risk Management" in the 2022 Annual Report.

Credit Risk

Credit risk refers to the risk of loss arising when a borrower, counterparty or issuer does not meet its financial obligations to us. We are primarily exposed to credit risk from institutions and individuals. For a further discussion of our credit risks, see "Quantitative and Qualitative Disclosures about Risk—Credit Risk" in the 2022 Annual Report.

Loans and Lending Commitments

	At March 31, 2023			
$ in millions	HFI	HFS	FVO	Total
Corporate	**$ 4,108**	**$ 4,244**	**$ —**	**$ 8,352**
Secured lending facilities	**36,923**	**1,486**	**—**	**38,409**
Commercial real estate	**8,579**	**779**	**491**	**9,849**
Residential real estate	**—**	**—**	**1,033**	**1,033**
Securities-based lending and Other	**18,930**	**1**	**2,800**	**21,731**
Total loans	**68,540**	**6,510**	**4,324**	**79,374**
ACL	**(529)**	**—**	**—**	**(529)**
Total loans, net of ACL	**$ 68,011**	**$ 6,510**	**$ 4,324**	**$ 78,845**
Lending Commitments[1]				**$ 94,216**
Total exposure				**$ 173,061**

	At December 31, 2022			
$ in millions	HFI	HFS	FVO	Total
Corporate	$ 3,597	$ 3,352	$ —	$ 6,949
Secured lending facilities	35,248	2,041	—	37,289
Commercial real estate	8,493	845	444	9,782
Residential real estate	—	—	718	718
Securities-based lending and Other	19,566	1	3,351	22,918
Total loans	66,904	6,239	4,513	77,656
ACL	(468)	—	—	(468)
Total loans, net of ACL	$ 66,436	$ 6,239	$ 4,513	$ 77,188
Lending Commitments[1]				$ 90,411
Total exposure				$ 167,599

Total exposure-consists of Total loans, net of ACL, and Lending commitments.

1. Lending commitments represent the notional amount of legally binding obligations to provide funding to clients for lending transactions. Since commitments associated with these business activities may expire unused or may not be utilized to full capacity, they do not necessarily reflect the actual future cash funding requirements.

We provide loans and lending commitments to a variety of customers, including large corporate and institutional clients, as well as high to ultra-high net worth individuals. In addition, we purchase loans in the secondary market. Loans and lending commitments are either held for investment, held for sale or carried at fair value. For more information on these loan classifications, see Note 2 to the financial statements in the 2022 Annual Report.

The total loans and lending commitments increased by approximately $5.5 billion in the current quarter, primarily due to growth in Corporate and Secured lending facilities.

See Notes 3, 6 and 12 to the financial statements for further information.

Allowance for Credit Losses – Loans and Lending Commitments

$ in millions	
ACL – Loans	$ 468
ACL – Lending Commitments	181
Total at December 31, 2022	649
Gross charge-offs	**(69)**
Provision for credit losses	**142**
Total at March 31, 2023	**$ 722**
ACL – Loans	**$ 529**
ACL – Lending commitments	**193**

Credit exposure arising from our loans and lending commitments is measured in accordance with our internal risk management standards. Risk factors considered in determining the allowance for credit losses for loans and lending commitments include the borrower's financial strength, industry, facility structure, LTV ratio, debt service ratio, collateral and covenants. Qualitative and environmental factors such as economic and business conditions, nature and volume of the portfolio and lending terms, and volume and severity of past due loans may also be considered.

The allowance for credit losses for loans and lending commitments increased since December 31, 2022, reflecting deterioration in both our expectations of commercial real estate borrowers and the macroeconomic outlook.

The base scenario used in our ACL models as of March 31, 2023 was generated using a combination of consensus economic forecasts, forward rates, and internally developed and validated models, and assumes an economic contraction in 2023, followed by a recovery in 2024. Given the nature of our lending portfolio, the most sensitive model input is U.S. gross domestic product ("GDP").

Forecasted U.S. Real GDP Growth Rates in Base Scenario

	4Q 2023	**4Q 2024**
Year-over-year growth rate	**(0.1)%**	**2.0 %**

See Note 3 to the financial statements for further information. See Note 2 to the financial statements in the 2022 Annual Report for a discussion of the Bank's ACL methodology under CECL.

Status of Loans Held for Investment

	At March 31, 2023	At December 31, 2022
Accrual	**99.3 %**	99.5 %
Nonaccrual[1]	**0.7 %**	0.5 %

1. These loans are on nonaccrual status because the loans were past due for a period of 90 days or more or payment of principal or interest was in doubt.

Net Charge-off Ratios for Loans Held for Investment

$ in millions	Corporate	Secured Lending Facilities	CRE	SBL and Other	Total
For the Three Months Ended March 31, 2023					
Net charge-offs ratio[1]	**— %**	**— %**	**0.81 %**	**— %**	**0.10 %**
Average Loan	**$ 3,769**	**$35,996**	**$ 8,546**	**$19,322**	**$67,633**
For the Three Months Ended March 31, 2022					
Net charge-offs ratio[1]	— %	— %	0.09 %	— %	0.01 %
Average Loan	$ 3,463	$31,007	$ 7,783	$19,324	$61,577

1. Net charge-off ratio represents gross charge-offs net of recoveries divided by total average loans held for investment before ACL.

Loans and Lending Commitments by Credit Rating[1]

	At March 31, 2023				
	Contractual Years to Maturity				
$ in millions	< 1	1-5	5-15	>15	Total[3]
Loans					
AA	**$ 48**	**$ —**	**$ 105**	**$ —**	**$ 153**
A	**1,169**	**1,956**	**—**	**—**	**3,125**
BBB	**5,000**	**11,118**	**107**	**—**	**16,225**
BB	**12,188**	**15,513**	**556**	**372**	**28,629**
Other NIG	**5,165**	**7,194**	**1,163**	**74**	**13,596**
Unrated[2]	**3**	**234**	**133**	**1,032**	**1,402**
Total loans, net of ACL	**23,573**	**36,015**	**2,064**	**1,478**	**63,130**
Lending commitment					
AAA	**—**	**50**	**—**	**—**	**50**
AA	**2,073**	**1,953**	**289**	**—**	**4,315**
A	**4,823**	**17,081**	**407**	**—**	**22,311**
BBB	**10,728**	**33,113**	**393**	**—**	**44,234**
BB	**3,204**	**13,153**	**727**	**171**	**17,255**
Other NIG	**276**	**2,706**	**49**	**—**	**3,031**
Unrated[2]	**2**	**—**	**—**	**—**	**2**
Total lending commitments	**21,106**	**68,056**	**1,865**	**171**	**91,198**
Total exposure	**$ 44,679**	**$104,071**	**$ 3,929**	**$ 1,649**	**$154,328**

	At December 31, 2022				
	Contractual Years to Maturity				
$ in millions	< 1	1-5	5-15	>15	Total[3]
Loans					
AA	$ 67	$ —	$ 139	$ —	$ 206
A	1,316	734	—	—	2,050
BBB	5,364	10,188	114	—	15,666
BB	10,726	17,075	713	157	28,671
Other NIG	4,710	6,566	1,341	215	12,832
Unrated[2]	3	349	191	719	1,262
Total loans, net of ACL	22,186	34,912	2,498	1,091	60,687
Lending commitments					
AAA	—	50	—	—	50
AA	2,047	2,245	11	—	4,303
A	4,517	17,183	189	330	22,219
BBB	9,055	30,996	413	—	40,464
BB	2,610	13,833	1,050	96	17,589
Other NIG	562	2,615	49	—	3,226
Unrated[2]	—	15	—	—	15
Total lending commitments	18,791	66,937	1,712	426	87,866
Total exposure	$ 40,977	$101,849	$ 4,210	$ 1,517	$148,553

NIG-Non-investment grade
1. Counterparty credit ratings are internally determined by the CRM. Primarily includes Corporate, Residential real estate, and Commercial real estate loans and lending commitments.
2. Unrated loans and lending commitments are primarily trading positions that are measured at fair value and risk-managed as a component of market risk. For a further discussion of our market risk, see “Quantitative and Qualitative Disclosures about Risk —Market Risk” herein.
3. Excludes loans and lending commitments of $18.7 billion and $19.0 billion at March 31, 2023 and December 31, 2022, respectively, which are extended to clients of Morgan Stanley’s Wealth Management segment. The above loans and lending commitments are largely subject to collateral maintenance provisions and predominantly over-collateralized.

Loans and Lending Commitments by Industry[1]

$ in millions	At March 31, 2023	At December 31, 2022
Financials	**$ 46,966**	$ 48,837
Real estate	**33,417**	30,470
Utilities	**9,353**	8,464
Information technology	**9,302**	9,134
Healthcare	**9,140**	8,917
Consumer staples	**9,033**	6,482
Industrials	**8,365**	8,216
Communication services	**6,492**	6,511
Consumer discretionary	**6,250**	5,790
Energy	**5,798**	5,855
Other	**10,212**	9,877
Total exposure	**$ 154,328**	$ 148,553

1. Excludes loans and lending commitments of $18.7 billion and $19.0 billion at March 31, 2023 and December 31, 2022, respectively, which are extended to clients of Morgan Stanley’s Wealth Management segment.

Commercial Real Estate Loans and Lending Commitments

By Region

	At March 31, 2023			At December 31, 2022		
$ in millions	Loans[1]	LC	Total	Loans[1]	LC	Total
Americas	**$ 6,234**	**$ 478**	**$ 6,712**	$ 6,474	$ 489	$ 6,963
EMEA	**3,145**	**75**	**3,220**	2,907	73	2,980
Asia	**427**	**5**	**432**	445	5	450
Total	**$ 9,806**	**$ 558**	**$ 10,364**	$ 9,826	$ 567	$ 10,393

By Property Type

	At March 31, 2023			At December 31, 2022		
$ in millions	Loans[1]	LC	Total	Loans[1]	LC	Total
Office	$ 3,869	$ 273	$ 4,142	$ 3,861	$ 301	$ 4,162
Industrial	2,646	18	2,664	2,519	25	2,544
Multifamily	1,836	193	2,029	2,095	197	2,292
Retail	732	—	732	546	—	546
Hotel	717	74	791	750	44	794
Other	6	—	6	55	—	55
Total	$ 9,806	$ 558	$ 10,364	$ 9,826	$ 567	$ 10,393

LC-Lending Commitments

1. Amounts include HFI, HFS and FVO. HFI loans are net of ACL.

The current economic environment and changes in business and consumer behavior post-COVID have adversely impacted commercial real estate borrowers due to pressure from higher interest rates, tenant lease renewals, and elevated refinancing risks, among other issues. While we continue to actively monitor all our loan portfolios, the commercial real estate sector remains under heightened focus given the sector's sensitivity to economic and secular factors, credit conditions, and difficulties specific to certain property types, most notably office.

As of March 31, 2023, our lending against commercial real estate properties totaled $10.4 billion. Commercial real estate loans are originated for experienced sponsors and are generally secured by institutional commercial real estate properties. In many cases, loans are subsequently syndicated or securitized on a full or partial basis, reducing our ongoing exposure.

Market Risk

Market risk refers to the risk that a change in the level of one or more market prices, rates, spreads, indices, volatilities, correlations or other market factors, such as market liquidity, will result in losses for a position or portfolio.

The Bank's principal market risk is non-trading interest rate risk in the banking book (amounts classified for regulatory capital purposes under the banking book regime), which refers to the exposure that a change in interest rates will result in prospective earnings changes for these assets and liabilities. For a further discussion of market risk, see "Quantitative and Qualitative Disclosures about Risk—Market Risk" in the 2022 Annual Report.

We believe that interest rate sensitivity analysis is an appropriate representation of our non-trading risks. The following sensitivity analysis covers substantially all of the non-trading risk in our portfolio.

Net Interest Income Sensitivity Analysis

$ in millions	At March 31, 2023	At December 31, 2022
Basis point change		
+100	$ 377	$ 360
-100	(420)	(398)

The previous table presents an analysis of selected instantaneous upward and downward parallel interest rate shocks (subject to a floor of zero percent in the downward scenario) on net interest income over the next 12 months for the Bank. These shocks are applied to our 12-month forecast for the Bank, which incorporates market expectations of interest rates and our forecasted business activity, including deposit forecasts as a key assumption.

We do not manage to any single rate scenario but rather manage net interest income in the Bank to optimize across a range of possible outcomes, including non-parallel rate change scenarios. The sensitivity analysis assumes that we take no action in response to these scenarios, assumes there are no changes in other macroeconomic variables normally correlated with changes in interest rates, and includes subjective assumptions regarding customer and market re-pricing behavior and other factors.

Our balance sheet is asset sensitive, given assets reprice faster than liabilities, resulting in higher net interest income in increasing interest rate scenarios. The level of interest rates may impact the amount of deposits held at the Bank, given competition for deposits from other institutions and alternative cash-equivalent products available to depositors. Further, rising interest rates could also impact client demand for loans. Net interest income sensitivity to interest rates at March 31, 2023 increased from December 31, 2022, primarily driven by the effects of changes in the mix of our assets and liabilities.

Country Risk

Country risk exposure is the risk that events in, or that affect, a foreign country (any country other than the U.S.) might adversely affect us. We actively manage country risk exposure through a comprehensive risk management framework that combines credit and other market fundamentals and allows us to effectively identify, monitor and limit country risk. Country risk exposure before and after hedging is monitored and managed. For a further discussion of our country risk exposure see "Quantitative and Qualitative Disclosures about Risk—Country and Other Risks" in the 2022 Annual Report.

Top 5 Non-U.S. Country Exposures at March 31, 2023

$ in millions	United Kingdom	Australia	Germany	Netherlands	Ireland
Non-sovereigns					
Net inventory[1]	$ 31	$ —	$ 4	$ (13)	$ 4
Net Counterparty Exposure[2]	4	—	—	—	—
Loans	5,056	1,445	909	649	880
Lending commitments	5,524	905	1,897	1,154	408
Exposure before hedges	10,615	2,350	2,810	1,790	1,292
Hedges[3]	(566)	(1)	(505)	(314)	—
Total Net exposure	$ 10,049	$ 2,349	$ 2,305	$ 1,476	$ 1,292

1. Net inventory represents exposure to both long and short single-name and index positions (i.e., bonds and CDS based on a notional amount assuming zero recovery adjusted for the fair value of any receivable or payable).
2. Net counterparty exposure is net of the benefit of collateral received and also is net by counterparty when legally enforceable master netting agreements are in place.
3. Amounts represent net CDS hedges (purchased and sold) on net counterparty exposure and lending executed by trading desks responsible for hedging counterparty and lending credit risk exposures. Amounts are based on the CDS notional amount assuming zero recovery adjusted for the fair value of any receivable or payable.

Operational Risk

Operational risk refers to the risk of loss, or of damage to our reputation, resulting from inadequate or failed processes or systems, from human factors or from external events (e.g., cyber-attacks or third-party vulnerabilities) that may manifest as, for example, loss of information, business disruption, theft and fraud, legal and compliance risks, or damage to physical assets. We may incur operational risk across the full scope of our business activities, including revenue-generating activities and support and control groups (e.g., information technology and trade processing). For a further discussion about our operational risk, see "Quantitative and Qualitative Disclosures about Risk—Operational Risk" in the 2022 Annual Report.

Model Risk

Model risk refers to the potential for adverse consequences from decisions based on incorrect or misused model outputs. Model risk can lead to financial loss, poor business and strategic decision making or damage to the Bank's reputation. The risk inherent in a model is a function of the materiality, complexity and uncertainty around inputs and assumptions. Model risk is generated from the use of models impacting financial statements, regulatory filings, capital adequacy assessments and the formulation of strategy. For a further discussion about our model risk, see "Quantitative and Qualitative Disclosures about Risk—Model Risk" in the 2022 Annual Report.

Liquidity Risk

Liquidity risk refers to the risk that we will be unable to finance our operations due to a loss of access to the capital markets, a reduction in deposit balances, or difficulty in liquidating our assets. Liquidity risk also encompasses our ability (or perceived ability) to meet our financial obligations without experiencing significant business disruption or reputational damage that may threaten our viability as a going concern. For a further discussion about our liquidity risk, see "Quantitative and Qualitative Disclosures about Risk—Liquidity Risk" in the 2022 Annual Report and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" herein.

Legal and Compliance Risk

Legal and compliance risk includes the risk of legal or regulatory sanctions, material financial loss, including fines, penalties, judgments, damages and/or settlements, limitations on our business, or loss to reputation that we may suffer as a result of failure to comply with laws, regulations, rules, related self-regulatory organization standards and codes of conduct applicable to our business activities. This risk also includes contractual and commercial risk, such as the risk that a counterparty's performance obligations will be unenforceable. It also includes compliance with BSA/AML and OFAC rules and requirements, terrorist financing, and anti-corruption rules and regulations. For a further discussion about our legal and compliance risk, see "Quantitative and Qualitative Disclosures about Risk—Legal and Compliance Risk" in the 2022 Annual Report.

Climate Risk

Climate change manifests as physical and transition risks. The physical risks of climate change include acute events, such as flooding, hurricanes, heatwaves and wildfires, and chronic, longer-term shifts in climate patterns, such as increasing global average temperatures, rising sea levels, and droughts. Transition risks are policy, legal, technological, and market changes to address climate risks and include changes in consumer behavior and any additional regulatory and legislative requirements, such as carbon taxes. Climate risk, which is not expected to have a significant effect on our consolidated results of operations or financial condition in the near-term, is an overarching risk that can impact other categories of risk over the longer-term. For a further discussion about our climate risk, see "Quantitative and Qualitative Disclosures about Risk—Climate Risk" in the 2022 Annual Report.

Deloitte & Touche LLP
30 Rockefeller Plaza
New York, NY 10112
USA

Deloitte.

Tel: 212-436-2000
Fax: 212-436-5000
www.deloitte.com

INDEPENDENT AUDITOR'S REVIEW REPORT

To the Board of Directors and Shareholder of
Morgan Stanley Bank, N.A.

Results of Review of Interim Financial Information

We have reviewed the accompanying condensed consolidated balance sheet of Morgan Stanley Bank, N.A. and subsidiaries (the "Bank") as of March 31, 2023, and the related condensed consolidated income statements, comprehensive income statements, cash flow statements, and statements of changes in shareholder's equity for the three-month periods ended March 31, 2023 and 2022, and the related notes (collectively referred to as the "interim financial information").

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

Basis for Review Results

We conducted our reviews in accordance with auditing standards generally accepted in the United States of America (GAAS) applicable to reviews of interim financial information. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. A review of interim financial information is substantially less in scope than an audit conducted in accordance with GAAS, the objective of which is an expression of an opinion regarding the financial information as a whole, and accordingly, we do not express such an opinion. We are required to be independent of the Bank and to meet our other ethical responsibilities in accordance with the relevant ethical requirements relating to our review. We believe that the results of the review procedures provide a reasonable basis for our conclusion.

Responsibilities of Management for the Interim Financial Information

Management is responsible for the preparation and fair presentation of the interim financial information in accordance with accounting principles generally accepted in the United States of America and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of interim financial information that is free from material misstatement, whether due to fraud or error.

Report on Condensed Balance Sheet as of December 31, 2022

We have previously audited, in accordance with auditing standards generally accepted in the United States of America, the balance sheet as of December 31, 2022, and the related income statements, comprehensive income statements, cash flow statements, and statements of changes in shareholder's equity for the year then ended (not presented herein); and we expressed an unmodified audit opinion on those audited financial statements in our report dated March 16, 2023. In our opinion, the accompanying condensed consolidated balance sheet of the Bank as of December 31, 2022, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Deloitte & Touche LLP

May 22, 2023

Consolidated Income Statement (Unaudited)

	Three Months Ended March 31,	
$ in millions	**2023**	2022
Revenues		
Interest income	**$ 2,096**	$ 833
Interest expense	**758**	33
Net interest	**1,338**	800
Non-interest revenues		
Fee income	**284**	180
Gains and losses on financial assets and liabilities	**266**	136
Other	**43**	41
Total non-interest revenues	**593**	357
Net revenues	**1,931**	1,157
Provision for credit losses	**142**	1
Non-interest expenses		
Compensation and benefits	**32**	27
General and administrative	**211**	216
FDIC and regulatory assessments	**26**	19
Total non-interest expenses	**269**	262
Income before provision for income taxes	**1,520**	894
Provision for income taxes	**349**	207
Net income	**$ 1,171**	$ 687

Consolidated Comprehensive Income Statement (Unaudited)

	Three Months Ended March 31,	
$ in millions	**2023**	2022
Net income	**$ 1,171**	$ 687
Other comprehensive income (loss), net of tax:		
Change in net unrealized gains (losses) on available-for-sale securities	**274**	(1,246)
Change in net debt valuation adjustment	**49**	(4)
Net change in cash flow hedges	**7**	—
Total other comprehensive income (loss)[1]	**$ 330**	$ (1,250)
Comprehensive income (loss)	**$ 1,501**	$ (563)

1. Amounts are net of (provision)/benefit for income taxes of $(100) million and $383 million for the current quarter and the prior year quarter, respectively.

Consolidated Balance Sheet

$ in millions	(Unaudited) At March 31, 2023	At December 31, 2022
Assets		
Cash and cash equivalents	**$ 25,501**	$ 28,457
Trading assets at fair value	**18,445**	12,975
Investment securities:		
Available for sale securities at fair value (amortized cost of **$50,826** and $51,366)	**48,126**	48,308
Held-to-maturity securities at cost (fair value of **$22,098** and $21,935)	**25,338**	25,584
Securities purchased under agreements to resell	**4,652**	4,488
Loans:		
Loans held for investment (net of allowance for credit losses of **$529** and $468)	**68,011**	66,436
Loans held for sale (lower of cost or fair value)	**6,510**	6,239
Loans at fair value	**4,324**	4,513
Interest receivable	**788**	751
Affordable housing tax credit investments	**898**	922
Deferred taxes	**808**	884
Loans to affiliate	**463**	447
Other assets	**1,981**	1,359
Total assets	**$ 205,845**	$ 201,363
Liabilities		
Deposits (includes **$3,166** and $3,178 at fair value)	**$ 179,277**	$ 177,356
Trading liabilities at fair value	**329**	197
Borrowing from Parent and affiliate	**658**	693
Payable to affiliates	**651**	577
Other secured financings at fair value	**537**	241
Affordable housing tax credit investment commitments	**359**	374
Accrued expenses and other liabilities	**2,556**	1,948
Total liabilities	**184,367**	181,386
Shareholder's equity		
Common stock, $1 par value:		
Shares authorized: **50,000**; Shares issued: **100**; Shares outstanding: **100**	**—**	—
Additional paid-in capital	**8,005**	8,005
Retained earnings	**15,512**	14,341
Accumulated other comprehensive loss	**(2,039)**	(2,369)
Total shareholder’s equity	**21,478**	19,977
Total liabilities and shareholder's equity	**$ 205,845**	$ 201,363

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

	Three Months Ended March 31,	
$ in millions	**2023**	2022
Common Stock		
Beginning and ending balance	**$ —**	$ —
Additional Paid-in Capital		
Beginning and ending balance	**8,005**	8,005
Retained Earnings		
Beginning balance	14,341	10,720
Net income	**1,171**	687
Ending balance	**15,512**	11,407
Accumulated Other Comprehensive Income (Loss)		
Beginning balance	(2,369)	165
Net change in Accumulated other comprehensive income (loss)[1]	**330**	(1,250)
Ending balance	**(2,039)**	(1,085)
Total Shareholder's Equity	**$ 21,478**	$ 18,327

1. Amounts are net of (provision)/benefit for income taxes of **$(100)** million and $383 million for the current quarter and the prior year quarter, respectively.

Consolidated Cash Flow Statement (Unaudited)

$ in millions	Three Months Ended March 31, 2023	2022
Cash flows from operating activities		
Net income	**$ 1,171**	$ 687
Adjustments to reconcile net income to net cash provided by (used for) operating activities:		
Amortization of premium/discount on investment securities	**(13)**	(16)
Provision for credit losses	**142**	1
Deferred income taxes, net	**(24)**	5
Other operating adjustments	**(210)**	184
Changes in assets and liabilities:		
Trading assets, net of Trading liabilities	**(5,338)**	(482)
Loans at fair value with intent to sell	**383**	(399)
Loans held for sale	**(271)**	(1,538)
Securities purchased under agreements to resell	**(164)**	(532)
Net receivable from / (payable to) affiliates	**(24)**	(198)
Accrued expenses and other liabilities	**512**	195
Other assets	**(541)**	(585)
Net cash provided by (used for) operating activities	**(4,377)**	(2,678)
Cash flows from investing activities		
Proceeds from (payments for):		
AFS securities:		
Purchases	**(2,735)**	(12,264)
Proceeds from sales	**1,466**	541
Proceeds from paydowns and maturities	**2,095**	1,948
HTM securities:		
Purchases	**—**	(1,002)
Proceeds from paydowns and maturities	**257**	750
Securities purchased under agreements to resell	**—**	(3)
Changes in loans at fair value with intent to hold, net	**(207)**	450
Changes in loans held for investment, net	**(1,636)**	(468)
Net cash provided by (used for) investing activities	**(760)**	(10,048)
Cash flows from financing activities		
Net proceeds from (payments for):		
Deposits	**1,921**	15,960
Borrowing from Parent and affiliate	**(36)**	(5,861)
Other secured financings	**296**	—
Net cash provided by (used for) financing activities	**2,181**	10,099
Effect of exchange rate changes on cash and cash equivalents	**—**	(1)
Net increase (decrease) in cash and cash equivalents	**(2,956)**	(2,628)
Cash and cash equivalents, at beginning of period	**28,457**	30,099
Cash and cash equivalents, at end of period	**$ 25,501**	$ 27,471

	2023	2022
Supplemental Disclosures of Cash Flow Information:		
Cash payments/(refunds) for:		
Interest	**$ 642**	$ 39
Income taxes	**—**	(4)
Non-cash transactions:		
Loans transferred into held for sale from held for investment	**$ 297**	$ 29
Beneficial interests obtained in financial assets transferred to an unconsolidated securitization entity	**14**	43

1. Introduction and Basis of Presentation

The Bank

Morgan Stanley Bank, N.A. is a nationally chartered bank and a wholly owned subsidiary of MSDHI. MSDHI is an indirect wholly owned subsidiary of Morgan Stanley. The Bank is regulated by the OCC and its qualifying deposits are insured by the FDIC. The Bank is also provisionally registered as a swap dealer with the CFTC and conditionally registered as a security-based swap dealer with the SEC.

MSBNA is primarily a wholesale commercial bank that offers commercial lending products, certain retail securities-based lending products, certain derivative products, and deposit products.

The Bank's lending activities include lending to corporations for specific purposes, such as financing acquisitions and normal operating activities, secured lending facilities, commercial real estate lending, as well as extending securities-based financing to customers.

The deposit accounts the Bank accepts are principally used to fund lending activities and the Bank's investment portfolio. The Bank accepts DDA deposits, and issues CDs that are principally used to fund lending activities and invest in securities.

Basis of Financial Information

The financial statements are prepared in accordance with U.S. GAAP, which require the Bank to make estimates and assumptions regarding the valuation of certain financial instruments, the allowance for credit losses, compensation, deferred tax assets, the outcome of legal and tax matters, and other matters that affect the financial statements and related disclosures. The Bank believes that the estimates utilized in the preparation of the financial statements are prudent and reasonable. Actual results could differ materially from these estimates.

The Notes are an integral part of the Bank's financial statements. The Bank has evaluated subsequent events for adjustment to or disclosure in the financial statements through the date of this report and has not identified any recordable or disclosable events not otherwise reported in the financial statements or the notes thereto.

The accompanying financial statements should be read in conjunction with the Bank's financial statements and notes thereto included in the 2022 Annual Report. Certain footnote disclosures included in the 2022 Annual Report have been condensed or omitted from these financial statements as they are not required for interim reporting under U.S. GAAP. The financial statements reflect all adjustments of a normal, recurring nature that are, in the opinion of management, necessary for the fair presentation of the results for the interim period. The results of operations for interim periods are not necessarily indicative of results for the entire year.

Consolidation

The financial statements include the accounts of the Bank and its wholly owned subsidiaries, including certain VIEs (see Note 13). Intercompany balances and transactions have been eliminated.

2. Significant Accounting Policies

For a detailed discussion about the Bank's significant accounting policies and for further information on accounting updates adopted in the prior year, see Note 2 to the financial statements in the 2022 Annual Report.

During the three months ended March 31, 2023, there were no significant updates to the Bank's significant accounting policies, other than for the accounting update adopted.

Accounting Update Adopted in 2023

Financial Instruments - Credit Losses

The Bank adopted the Financial Instruments-Credit Losses accounting update on January 1, 2023, with no impact on the Bank's financial condition or results of operations upon adoption.

This accounting update eliminates the accounting guidance for TDRs and requires new disclosures regarding certain modifications of financing receivables (i.e., principal forgiveness, interest rate reductions, other-than-insignificant payment delays and term extensions) to borrowers experiencing financial difficulty. The update also requires disclosure of current period gross charge-offs by year of origination for financing receivables measured at amortized cost. Refer to Note 3, Loans, Lending Commitments and Related Allowance for Credit Losses, for the new disclosures.

3. Loans, Lending Commitments and Related Allowance for Credit Losses

Loans by Type

	At March 31, 2023			
$ in millions	HFI Loans	HFS Loans	Loans at Fair Value	Total Loans
Corporate	$ 4,108	$ 4,244	$ —	$ 8,352
Secured lending facilities	36,923	1,486	—	38,409
Commercial real estate	8,579	779	491	9,849
Residential real estate	—	—	1,033	1,033
Securities-based lending and Other loans	18,930	1	2,800	21,731
Total loans	68,540	6,510	4,324	79,374
ACL	(529)	—	—	(529)
Total loans, net	**$ 68,011**	**$ 6,510**	**$ 4,324**	**$ 78,845**
Loans to non-U.S. borrowers, net				$ 16,014

	At December 31, 2022			
$ in millions	HFI Loans	HFS Loans	Loans at Fair Value	Total Loans
Corporate	$ 3,597	$ 3,352	$ —	$ 6,949
Secured lending facilities	35,248	2,041	—	37,289
Commercial real estate	8,493	845	444	9,782
Residential real estate	—	—	718	718
Securities-based lending and Other loans	19,566	1	3,351	22,918
Total loans	66,904	6,239	4,513	77,656
ACL	(468)	—	—	(468)
Total loans, net	$ 66,436	$ 6,239	$ 4,513	$ 77,188
Loans to non-U.S. borrowers, net				$ 14,949

For additional information on the Bank's held-for-investment, held-for-sale loan and loans at fair value portfolios, see Note 3 to the financial statements in the 2022 Annual Report.

Loans by Interest Rate Type

	At March 31, 2023		At December 31, 2022	
$ in millions	Fixed Rate	Floating or Adjustable Rate	Fixed Rate	Floating or Adjustable Rate
Corporate	**$ —**	**$ 8,352**	$ —	$ 6,949
Secured lending facilities	**—**	**38,409**	—	37,289
Commercial real estate	**204**	**9,154**	205	9,133
Securities-based lending and Other loans	**4,310**	**14,621**	4,755	14,812
Total loans, before ACL	**$ 4,514**	**$ 70,536**	$ 4,960	$ 68,183

See Note 6 for further information regarding Loans and lending commitments held at fair value. See Note 12 for details of current commitments to lend in the future.

Loans Held for Investment before Allowance by Origination Year

	At March 31, 2023			At December 31, 2022		
	Corporate					
$ in millions	IG	NIG	Total	IG	NIG	Total
Revolving	**$ 2,488**	**$ 1,535**	**$ 4,023**	$ 2,251	$ 1,258	$ 3,509
2023	**—**	**—**	**—**			
2022	**—**	**2**	**2**	6	—	6
2021	**—**	**24**	**24**	—	24	24
2020	**—**	**59**	**59**	—	58	58
2019	**—**	**—**	**—**	—	—	—
Prior	**—**	**—**	**—**	—	—	—
Total	**$ 2,488**	**$ 1,620**	**$ 4,108**	$ 2,257	$ 1,340	$ 3,597

	At March 31, 2023			At December 31, 2022		
	Secured Lending Facilities					
$ in millions	IG	NIG	Total	IG	NIG	Total
Revolving	**$ 9,338**	**$ 21,692**	**$ 31,030**	$ 9,445	$ 21,142	$ 30,587
2023	**956**	**255**	**1,211**			
2022	**1,090**	**1,489**	**2,579**	1,135	1,337	2,472
2021	**256**	**211**	**467**	254	208	462
2020	**—**	**88**	**88**	—	98	98
2019	**60**	**200**	**260**	60	254	314
Prior	**212**	**1,076**	**1,288**	215	1,100	1,315
Total	**$ 11,912**	**$ 25,011**	**$ 36,923**	$ 11,109	$ 24,139	$ 35,248

	At March 31, 2023			At December 31, 2022		
	Commercial Real Estate					
$ in millions	IG	NIG	Total	IG	NIG	Total
Revolving	**$ —**	**$ 175**	**$ 175**	$ —	$ 204	$ 204
2023	**—**	**297**	**297**			
2022	**388**	**2,066**	**2,454**	379	2,201	2,580
2021	**289**	**1,554**	**1,843**	217	1,609	1,826
2020	**—**	**739**	**739**	—	728	728
2019	**559**	**1,218**	**1,777**	659	1,152	1,811
Prior	**185**	**1,109**	**1,294**	211	1,133	1,344
Total	**$ 1,421**	**$ 7,158**	**$ 8,579**	$ 1,466	$ 7,027	$ 8,493

	At March 31, 2023			
	Securities-based Lending[1]	Other		
$ in millions		IG	NIG	Total
Revolving	**$ 15,418**	**$ 57**	**$ 98**	**$ 15,573**
2023	**458**	**—**	**—**	**458**
2022	**1,447**	**223**	**56**	**1,726**
2021	**701**	**—**	**151**	**852**
2020	**—**	**12**	**157**	**169**
2019	**—**	**—**	**38**	**38**
Prior	**—**	**—**	**114**	**114**
Total	**$ 18,024**	**$ 292**	**$ 614**	**$ 18,930**

	At December 31, 2022			
	Securities-based Lending[1]	Other		
$ in millions		IG	NIG	Total
Revolving	$ 16,573	$ 17	$ 94	$ 16,684
2022	1,365	233	42	1,640
2021	725	—	120	845
2020	—	12	186	198
2019	—	—	77	77
Prior	—	—	122	122
Total	$ 18,663	$ 262	$ 641	$ 19,566

IG – Investment Grade
NIG – Non-investment Grade
1. Securities-based loans are subject to collateral maintenance provisions, and at March 31, 2023 and December 31, 2022, these loans are predominantly over-collateralized. For more information on the ACL methodology related to securities-based loans, see Note 2 to the financial statements in the 2022 Annual Report.

Secured lending facilities include $80 million and $85 million in past due loans held for investment at March 31, 2023 and December 31, 2022, respectively.

Nonaccrual Loans Held for Investment before Allowance

$ in millions	At March 31, 2023	At December 31, 2022
Corporate	**$ 20**	$ 20
Secured lending facilities	**80**	85
Commercial real estate	**353**	209
Securities-based lending and other loans	**2**	2
Total[1]	**$ 455**	$ 316
Nonaccrual loans without an ACL	**$ 2**	$ 2

1. Includes all loans held for investment that are 90 days or more past due as of March 31, 2023 and December 31, 2022.

See Note 2 to the financial statements in the 2022 Annual Report for a description of the ACL calculated under the CECL methodology, including credit quality indicators, used for HFI loans.

The Bank may modify the terms of certain loans for economic or legal reasons related to a borrower's financial difficulties, and these modifications include interest rate reductions, principal forgiveness, term extensions and other-than-insignificant payment delays or a combination of these aforementioned modifications. Modified loans are typically evaluated individually for allowance for credit losses. As of March 31, 2023, there were no loans held for investment modified in the current quarter with subsequent default or past due.

Modified Loans Held for Investment[1]

	Three Months Ended March 31, 2023[2]	
$ in millions	Amortized Cost	% of Total Loans[3]
	Term Extension	
Commercial real estate	**$ 62**	**0.7 %**
	Other-than-insignificant Payment Delay	
Commercial real estate	**$ 67**	**0.8 %**

1. Lending commitments to borrowers for which the bank has modified the terms of the receivable are $171 million as of March 31, 2023.
2. Loans held for investment that were modified for the current quarter.
3. Percentage of total loans represents the percentage of modified loans to total loans held for investment by loan type.

Financial Impact on Modified Loans Held for Investment

	At March 31, 2023
	Term Extension
Commercial Real Estate	Added a weighted-average 2 months to the life of modified loans.
	Other-than-insignificant Payment Delay
Commercial Real Estate	Provided a forbearance period of 8 months to the borrower of the modified loan.

Gross Charge-offs by Origination Year

	Three Months Ended March 31, 2023
$ in millions	CRE
Revolving	**$ —**
2019	**(29)**
Prior	**(40)**
Total	**$ (69)**

Allowance for Credit Losses Rollforward and Allocation—Loans

$ in millions	Corporate	Secured Lending Facilities	CRE	SBL and Other	Total
December 31, 2022	**$ 27**	**$ 149**	**$ 274**	**$ 18**	**$ 468**
Gross charge-offs	**—**	**—**	**(69)**	**—**	**(69)**
Recoveries	**—**	**—**	**—**	**—**	**—**
Net Recoveries (charge-offs)	**—**	**—**	**(69)**	**—**	**(69)**
Provision (release)	**1**	**—**	**129**	**—**	**130**
Other	**—**	**1**	**1**	**(2)**	**—**
March 31, 2023	**$ 28**	**$ 150**	**$ 335**	**$ 16**	**$ 529**
Percentage of loans to total loans[1]	**6 %**	**54 %**	**13 %**	**27 %**	**100 %**

$ in millions	Corporate	Secured Lending Facilities	CRE	SBL and Other	Total
December 31, 2021	$ 27	$ 156	$ 206	$ 11	$ 400
Gross charge-offs	—	—	(7)	—	(7)
Recoveries	—	—	—	—	—
Net Recoveries (charge-offs)	—	—	(7)	—	(7)
Provision (release)	—	13	6	(3)	16
Other	—	—	(2)	—	(2)
March 31, 2022	$ 27	$ 169	$ 203	$ 8	$ 407
Percentage of loans to total loans[1]	6 %	48 %	14 %	32 %	100 %

CRE—Commercial real estate
SBL—Securities-based lending
1. Percentage of loans to total loans represents loans held for investment by loan type to total loans held for investment.

Allowance for Credit Losses Rollforward—Lending Commitments

$ in millions	Corporate	Secured Lending Facilities	CRE	SBL and Other	Total
December 31, 2022	$ 103	$ 51	$ 15	$ 12	$ 181
Provision (release)	**7**	**—**	**7**	**(2)**	**12**
Other	**—**	**—**	**—**	**—**	**—**
March 31, 2023	**$ 110**	**$ 51**	**$ 22**	**$ 10**	**$ 193**

$ in millions	Corporate	Secured Lending Facilities	CRE	SBL and Other	Total
December 31, 2021	$ 119	$ 41	$ 20	$ 11	$ 191
Provision (release)	(16)	8	(7)	—	(15)
Other	—	(1)	—	—	(1)
March 31, 2022	$ 103	$ 48	$ 13	$ 11	$ 175

The allowance for credit losses for loans and lending commitments increased in the current quarter, reflecting deterioration in both our expectations of commercial real estate borrowers and the macroeconomic outlook. The base scenario used in our ACL models as of March 31, 2023 was generated using a combination of consensus economic forecasts, forward rates, and internally developed and validated models, and assumes an economic contraction in 2023, followed by a recovery in 2024. Given the nature of our lending portfolio, the most sensitive model input is U.S. GDP.

For a further discussion of the Bank's loans as well as the Bank's allowance methodology, refer to Notes 2 and 3 to the financial statements in the 2022 Annual Report.

Selected Credit Ratios

	At March 31, 2023	At December 31, 2022
ACL for loans to total HFI loans	**0.8 %**	0.7 %
Nonaccrual HFI loans to total HFI loans[1]	**0.7 %**	0.5 %
ACL for loans to nonaccrual HFI loans	**116.1 %**	147.7 %

1. These loans are on nonaccrual status because the loans were past due for a period of 90 days or more or payment of principal or interest was in doubt.

4. Interest Income and Interest Expense

$ in millions	Three Months Ended March 31, 2023	2022
Interest income		
Deposits with banks	**$ 300**	$ 14
Investment securities	**481**	335
Securities purchased under agreements to resell	**62**	18
Loans, including fees	**1,237**	464
Other	**16**	2
Total interest income	**$ 2,096**	$ 833
Interest expense		
Deposits and Other[1]	**$ 758**	$ 33
Total interest expense	**$ 758**	$ 33
Net interest	**$ 1,338**	$ 800

1. Includes the impact of net advances from and payables to the Parent and affiliates.

5. Investment Securities

AFS and HTM Securities

$ in millions	At March 31, 2023 Amortized Cost[1]	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
AFS securities				
U.S. Treasury securities	**$ 28,678**	**$ 28**	**$ 763**	**$ 27,943**
U.S. agency securities[2]	**17,694**	**1**	**1,720**	**15,975**
Agency CMBS	**2,354**	**—**	**236**	**2,118**
State and municipal securities	**1,492**	**32**	**22**	**1,502**
FFELP Student loan ABS[3]	**608**	**—**	**20**	**588**
Total AFS securities	**50,826**	**61**	**2,761**	**48,126**
HTM securities				
U.S. Treasury securities	**9,237**	**—**	**611**	**8,626**
U.S. agency securities[2]	**14,911**	**—**	**2,515**	**12,396**
Non-Agency CMBS	**1,190**	**2**	**116**	**1,076**
Total HTM securities	**25,338**	**2**	**3,242**	**22,098**
Total investment securities	**$ 76,164**	**$ 63**	**$ 6,003**	**$ 70,224**

$ in millions	At December 31, 2022 Amortized Cost[1]	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
AFS securities				
U.S. Treasury securities	$ 29,607	$ 17	$ 950	$ 28,674
U.S. agency securities[2]	16,173	—	1,888	14,285
Agency CMBS	2,347	—	239	2,108
State and municipal securities	2,599	70	42	2,627
FFELP student loan ABS[3]	640	—	26	614
Total AFS securities	51,366	87	3,145	48,308
HTM securities				
U.S. Treasury securities	9,235	—	773	8,462
U.S. agency securities[2]	15,171	—	2,732	12,439
Non-Agency CMBS	1,178	—	144	1,034
Total HTM securities	25,584	—	3,649	21,935
Total investment securities	$ 76,950	$ 87	$ 6,794	$ 70,243

1. Amounts are net of ACL.
2. U.S. agency securities consist mainly of agency mortgage pass-through pool securities, CMOs and agency-issued debt.
3. Underlying loans are backed by a guarantee, ultimately from the U.S. Department of Education, of at least 95% of the principal balance and interest outstanding.

AFS Securities in an Unrealized Loss Position

$ in millions	At March 31, 2023 Fair Value	Gross Unrealized Losses	At December 31, 2022 Fair Value	Gross Unrealized Losses
U.S. Treasury securities				
Less than 12 months	**$ 10,823**	**$ 511**	$ 23,104	$ 799
12 months or longer	**11,044**	**252**	5,302	151
Total	**21,867**	**763**	28,406	950
U.S. agency securities				
Less than 12 months	**5,138**	**118**	8,710	704
12 months or longer	**9,932**	**1,602**	5,276	1,184
Total	**15,070**	**1,720**	13,986	1,888
Agency CMBS				
Less than 12 months	**1,879**	**208**	1,940	217
12 months or longer	**239**	**28**	169	22
Total	**2,118**	**236**	2,109	239
State and municipal securities				
Less than 12 months	**231**	**1**	2,106	40
12 months or longer	**516**	**21**	65	2
Total	**747**	**22**	2,171	42
FFELP student loan ABS				
Less than 12 months	**120**	**3**	215	8
12 months or longer	**468**	**17**	399	18
Total	**588**	**20**	614	26
Total AFS securities in an unrealized loss position				
Less than 12 months	**18,191**	**841**	36,075	1,768
12 months or longer	**22,199**	**1,920**	11,211	1,377
Total	**$ 40,390**	**$ 2,761**	$ 47,286	$ 3,145

For AFS securities, the Bank believes there are no securities in an unrealized loss position that have credit losses after performing the analysis described in Note 2 to the financial statements in the 2022 Annual Report and the Bank expects to recover the amortized cost basis of these securities. Additionally, the Bank does not intend to sell these securities and is not likely to be required to sell these securities prior to recovery of the amortized cost basis. As of March 31, 2023 and December 31, 2022, the securities in an unrealized loss position are predominantly investment grade.

The HTM securities net carrying amounts at March 31, 2023 and December 31, 2022 reflect an ACL of $30 million and $34 million, respectively, related to Non-agency CMBS. See Note 2 to the financial statements in the 2022 Annual Report for a description of the ACL methodology used for HTM Securities. As of March 31, 2023 and December 31, 2022, Non-Agency CMBS HTM securities were predominantly on accrual status and investment grade.

See Note 13 for additional information on securities issued by VIEs, including U.S. agency mortgage-backed securities, non-agency CMBS, and FFELP student loan ABS.

Investment Securities by Contractual Maturity

$ in millions	At March 31, 2023 Amortized Cost[1]	Fair Value	Annualized Average Yield[2,3]
AFS securities			
U.S. Treasury securities:			
Due within 1 year	$ 10,351	$ 10,154	0.9 %
After 1 year through 5 years	17,916	17,378	1.7 %
After 5 years through 10 years	411	411	3.5 %
Total	28,678	27,943	
U.S. agency securities:			
Due within 1 year	2	2	1.6 %
After 1 year through 5 years	299	281	1.8 %
After 5 years through 10 years	491	455	1.9 %
After 10 years	16,902	15,237	3.2 %
Total	17,694	15,975	
Agency CMBS:			
After 1 year through 5 years	1,051	968	2.2 %
After 5 years through 10 years	1,088	962	2.5 %
After 10 years	215	188	1.8 %
Total	2,354	2,118	
State and municipal securities:			
Due within 1 year	13	13	3.8 %
After 1 year through 5 years	48	49	3.9 %
After 5 years through 10 years	88	90	3.8 %
After 10 years	1,343	1,350	3.9 %
Total	1,492	1,502	
FFELP student loan ABS:			
After 1 year through 5 years	89	86	5.5 %
After 5 years through 10 years	108	104	5.4 %
After 10 years	411	398	5.5 %
Total	608	588	
Total AFS securities	50,826	48,126	2.2 %

$ in millions	At March 31, 2023 Amortized Cost	Fair Value	Annualized Average Yield
HTM securities			
U.S. Treasury securities:			
Due within 1 year	$ 1,195	$ 1,177	2.6 %
After 1 year through 5 years	4,801	4,537	1.8 %
After 5 years through 10 years	2,161	2,052	2.7 %
After 10 years	1,080	860	2.5 %
Total	9,237	8,626	
U.S. agency securities:			
After 1 year through 5 years	8	7	1.8 %
After 5 years through 10 years	325	301	2.0 %
After 10 years	14,578	12,088	1.9 %
Total	14,911	12,396	
Non-Agency CMBS:			
Due within 1 year	198	195	4.0 %
After 1 year through 5 years	251	233	4.1 %
After 5 years through 10 years	706	617	3.8 %
After 10 years	35	31	3.6 %
Total	1,190	1,076	
Total HTM securities	25,338	22,098	2.1 %
Total Investment securities	**$ 76,164**	**$ 70,224**	**2.2 %**

1. Amounts are net of ACL.
2. Annualized average yield is computed using the effective yield, weighted based on the amortized cost of each security. The effective yield is shown pre-tax and excludes the effect of related hedging derivatives.
3. At March 31, 2023, the annualized average yield, including the interest rate swap accrual of related hedges, was 1.0% for AFS securities contractually maturing within 1 year and 2.8% for all AFS securities.

Gross Realized Gains (Losses) on Sales of AFS Securities

$ in millions	Three Months Ended March 31, 2023	2022
Gross realized gains	$ 44	$ 28
Gross realized (losses)	(3)	(2)
Total[1]	**$ 41**	$ 26

1. Gross realized gains and losses are recognized in Non-interest revenues - Gains and losses on financial assets and liabilities in the income statement.

Changes in Accumulated Other Comprehensive Income (Loss) by component, net of tax:

$ in millions	2023 Changes in Net Unrealized Gains (Losses) on AFS Securities
Balance at December 31, 2022	$ (2,338)
Other comprehensive income (loss) before reclassifications	305
Amounts reclassified from AOCI	(31)
Net other comprehensive income (loss) during the period	274
Balance at March 31, 2023	**$ (2,064)**

$ in millions	2022 Changes in Net Unrealized Gains (Losses) on AFS Securities
Balance at December 31, 2021	$ 183
Other comprehensive income (loss) before reclassifications	(1,226)
Amounts reclassified from AOCI	(20)
Net other comprehensive income (loss) during the period	(1,246)
Balance at March 31, 2022	$ (1,063)

6. Fair Values

Recurring Fair Value Measurements

Assets and Liabilities Measured at Fair Value on a Recurring Basis

	At March 31, 2023				
$ in millions	Level 1	Level 2	Level 3	Netting	Total
Assets at fair value					
Trading assets:					
State and municipal securities	**$ —**	**$ 54**	**$ 13**	**$ —**	**$ 67**
Corporate and other debt[1]	**—**	**3,237**	**36**	**—**	**3,273**
Corporate equity	**13,268**	**—**	**—**	**—**	**13,268**
Derivative contracts:					
Foreign exchange	**—**	**272**	**—**	**—**	**272**
Interest rate	**—**	**1,628**	**—**	**—**	**1,628**
Credit	**—**	**92**	**153**	**—**	**245**
Equity	**—**	**530**	**1**	**—**	**531**
Netting[2]	**—**	**(2,322)**	**(2)**	**(14)**	**(2,338)**
Total derivative contracts	**—**	**200**	**152**	**(14)**	**338**
Total trading assets[3]	**13,268**	**3,491**	**201**	**(14)**	**16,946**
Investment securities - AFS					
U.S. Treasury securities	**27,943**	**—**	**—**	**—**	**27,943**
U.S. agency securities	**—**	**15,975**	**—**	**—**	**15,975**
Agency CMBS	**—**	**2,118**	**—**	**—**	**2,118**
FFELP student loan ABS	**—**	**588**	**—**	**—**	**588**
State and municipal securities	**—**	**1,502**	**—**	**—**	**1,502**
Total Investment securities - AFS	**27,943**	**20,183**	**—**	**—**	**48,126**
Loans at fair value	**—**	**3,434**	**890**	**—**	**4,324**
Total assets at fair value	**$ 41,211**	**$ 27,108**	**$ 1,091**	**$ (14)**	**$ 69,396**

	At March 31, 2023				
$ in millions	Level 1	Level 2	Level 3	Netting	Total
Liabilities at fair value					
Interest-bearing deposits	**$ —**	**$ 3,137**	**$ 29**	**$ —**	**$ 3,166**
Trading liabilities:					
Derivative contracts:					
Foreign exchange	**—**	**356**	**—**	**—**	**356**
Interest rate	**9**	**1,236**	**36**	**—**	**1,281**
Credit	**—**	**386**	**85**	**—**	**471**
Equity	**—**	**750**	**8**	**—**	**758**
Netting[2]	**—**	**(2,322)**	**(2)**	**(213)**	**(2,537)**
Total trading liabilities	**9**	**406**	**127**	**(213)**	**329**
Other secured financings	**—**	**537**	**—**	**—**	**537**
Total liabilities at fair value	**$ 9**	**$ 4,080**	**$ 156**	**$ (213)**	**$ 4,032**

	At December 31, 2022				
$ in millions	Level 1	Level 2	Level 3	Netting	Total
Assets at fair value					
Trading assets:					
State and municipal securities	$ —	$ 55	$ 13	$ —	$ 68
Corporate and other debt[1]	—	3,226	33	—	3,259
Corporate equity	7,824	—	—	—	7,824
Derivative contracts:					
Foreign exchange	—	432	—	—	432
Interest rate	3	1,855	—	—	1,858
Credit	—	67	160	—	227
Equity	—	1,156	—	—	1,156
Netting[2]	—	(1,880)	—	(1,453)	(3,333)
Total derivative contracts	3	1,630	160	(1,453)	340
Total trading assets[3]	7,827	4,911	206	(1,453)	11,491
Investment securities - AFS					
U.S. Treasury securities	28,674	—	—	—	28,674
U.S. agency securities	—	14,285	—	—	14,285
Agency CMBS	—	2,108	—	—	2,108
FFELP student loan ABS	—	614	—	—	614
State and municipal securities	—	2,592	35	—	2,627
Total Investment securities - AFS	28,674	19,599	35	—	48,308
Loans at fair value	—	3,636	877	—	4,513
Total assets at fair value	$ 36,501	$ 28,146	$ 1,118	$ (1,453)	$ 64,312

	At December 31, 2022				
$ in millions	Level 1	Level 2	Level 3	Netting	Total
Liabilities at fair value					
Interest-bearing deposits	$ —	$ 3,157	$ 20	$ —	$ 3,177
Trading liabilities:					
Corporate equity	1	—	—	—	1
Derivative contracts:					
Foreign exchange	—	803	—	—	803
Interest rate	—	1,273	48	—	1,321
Credit	—	268	88	—	356
Equity	—	299	10	—	309
Netting[2]	—	(1,880)	—	(713)	(2,593)
Total trading liabilities	$ 1	$ 763	$ 146	$ (713)	$ 197
Other secured financings	—	241	—	—	241
Total liabilities at fair value	$ 1	$ 4,161	$ 166	$ (713)	$ 3,615

RMBS—Residential mortgage-backed securities

1. Other debt includes equity contracts with financing features, and RMBS and CMBS.
2. For positions with the same counterparty that cross over the levels of the fair value hierarchy, both counterparty netting and cash collateral netting are included in the column titled "Netting". Positions classified within the same level that are with the same counterparty are netted within that level. For further information on derivative instruments, see Note 11.
3. Amounts exclude certain investments that are measured based on NAV per share, which are not classified in the fair value hierarchy. For additional disclosure about such investments, see "Net Asset Value Measurements" herein.

For a description of the valuation techniques applied to the Bank's major categories of assets and liabilities measured at fair value on a recurring basis, see Note 6 to the financial statements in the 2022 Annual Report. During the current quarter, there were no significant revisions made to the Bank's valuation techniques.

Rollforward of Level 3 Assets and Liabilities Measured at Fair Value on a Recurring Basis

$ in millions	Three Months Ended March 31, 2023	2022
Trading Assets[1]		
Beginning balance	$ 46	$ 37
Realized and unrealized gains (losses)	4	(3)
Purchases	—	2
Sales	(1)	(2)
Net transfers	—	(1)
Ending balance	$ 49	$ 33
Unrealized gains (losses)[2]	4	(2)
Loans		
Beginning balance	$ 877	$ 2,258
Realized and unrealized gains (losses)	1	7
Purchases and originations	266	119
Sales	(3)	(36)
Settlements	(221)	(403)
Net transfers	(30)	(443)
Ending balance	$ 890	$ 1,502
Unrealized gains (losses)[2]	1	6
Derivative contracts, net		
Beginning balance	$ 14	$ 110
Realized and unrealized gains (losses)	86	(30)
Settlements	(77)	(6)
Net transfers	2	(3)
Ending balance	$ 25	$ 71
Unrealized gains (losses)[2]	82	(30)
Investment Securities - AFS		
Beginning balance	35	—
Realized and unrealized gains (losses)	1	—
Net transfers	(36)	—
Ending balance	—	—
Unrealized gains (losses)[2]	1	—
Deposits		
Beginning balance	$ 20	$ 68
Issuances	6	—
Settlements	(1)	(4)
Net transfers	4	(37)
Ending balance	$ 29	$ 27

1. Trading assets include state and municipal securities, and other debt at March 31, 2023 and include other debt at March 31, 2022.
2. Amounts represent unrealized gains (losses) for the three months ended March 31, 2023 and the three months ended March 31, 2022 related to Level 3 assets and liabilities still held by the Bank at March 31, 2023 and March 31, 2022, respectively.

Level 3 instruments may be hedged with instruments classified in Level 1 and Level 2. The realized and unrealized gains or losses for assets and liabilities within the Level 3 category presented in the previous tables do not reflect the related realized and unrealized gains or losses on hedging instruments that have been classified by the Bank within the Level 1 and/or Level 2 categories.

The unrealized gains (losses) during the period for assets and liabilities within the Level 3 category may include changes in fair value during the period that were attributable to both observable and unobservable inputs. Total realized and unrealized gains (losses) are primarily included in Non-interest revenues within Gains and losses on financial assets and liabilities in the income statement.

Significant Unobservable Inputs Used in Recurring and Non-recurring Level 3 Fair Value Measurements

Valuation Techniques and Unobservable Inputs

$ in millions, except inputs	Balance / Range (Average[1]) At March 31, 2023	At December 31, 2022
Assets		
Corporate and other debt	15	$ 12
Comparable pricing:		
Comparable bond price	0 to 1 points (1 points)	0 to 1 points (1 point)
RMBS	21	$ 22
Comparable pricing:		
Comparable bond pricing	91 to 94 points (93 points)	89 to 92 points (91 points)
Loans	890	$ 877
Securities-based lending model:		
Securities-based lending rate	2% to 4% (3%)	2% to 4% (3%)
Comparable pricing:		
Comparable loan price	96 to 97 points (97 points)	96 to 99 points (97 points)
Investment securities–AFS	—	$ 35
Comparable pricing:		
Comparable bond pricing	N/M	92 to 101 points (96 points)
Net Derivative contracts		
Equity	(8)	$ (10)
Option model:		
Equity volatility model	6% to 23% (7%)	7% to 26% (7%)
Equity volatility skew model	-1% to 0% (0)	-1% to 0% (0%)
Interest Rate	(35)	$ (48)
Option model:		
Interest rate volatility skew	68% to 88% (75%/70%)	124% to 147% (131%)
Credit	68	$ 72
ISWAP model:		
Lapse rate	1.75% to 1.75% (1.75%)	1.75% (1.75%)
Liabilities		
Interest-bearing deposits	29	$ 20
Option model:		
Equity volatility	7% to 13% (7%)	7% (7%)
Nonrecurring Fair Value Measurement		
Loans	1,301	$ 1,684
Corporate Loan Model:		
Credit Spread	112 bps - 807 bps (330 bps)	126 bps to 764 bps (302 bps)
Warehouse Model:		
Credit Spread	108 bps - 311 bps (243 bps)	110 bps to 319 bps (243 bps)

Points—Percentage of par
1. Weighted averages are calculated by weighting each input by the fair value of the respective financial instruments except for derivative instruments where inputs are weighted by risk.

For a description of the Bank's significant unobservable inputs and qualitative information about the effect of hypothetical changes in the values of those inputs, see Note 6 to the financial statements in the 2022 Annual Report. During the current quarter, there were no significant revisions made to the descriptions of the Bank's significant unobservable inputs.

Net Asset Value Measurements

Fund Interests

	At March 31, 2023		At December 31, 2022	
$ in millions	Carrying Value	Unfunded Commitments	Carrying Value	Unfunded Commitments
Private equity funds	$ 112	$ 111	$ 100	$ 101
Real estate funds	1,387	8	1,384	9
Total	**$ 1,499**	**$ 119**	$ 1,484	$ 110

Amounts in the previous table represent the Bank's carrying value of general and limited partnership interests in fund investments, as well as any related performance-based fees in the form of carried interest. The carrying amounts are measured based on the NAV of the fund taking into account the distribution terms applicable to the interest held. This same measurement applies whether the fund investments are accounted for under the equity method or fair value.

For a description of the Bank's investments in private equity funds and real estate funds, which are measured based on NAV, see Note 6 to the financial statements in the 2022 Annual Report.

Nonredeemable Funds by Contractual Maturity

	Carrying Value at March 31, 2023	
$ in millions	Private Equity	Real Estate
Less than 5 years	$ 62	$ 128
5-10 years	50	1,259
Total	$ 112	$ 1,387

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

	At March 31, 2023		
		Fair Value	
$ in millions	Carrying Value	Level 2	Level 3
Assets			
Loans	$ 4,263	$ 2,962	$ 1,301
Liabilities			
Accrued expenses and other liabilities	$ 73	$ 57	$ 16

	At December 31, 2022		
		Fair Value	
$ in millions	Carrying Value	Level 2	Level 3
Assets			
Loans	$ 4,017	$ 2,333	$ 1,684
Liabilities			
Accrued expenses and other liabilities	$ 121	$ 91	$ 30

Gains (Losses) from Nonrecurring Fair Value Remeasurements

	Three Months Ended March 31,	
$ in millions	2023	2022
Assets		
Loans[1]	$ 10	$ (9)
Liabilities		
Accrued expenses and other liabilities[2]	$ 19	$ (21)

1. Gains (losses) are recorded within Gains and losses on financial assets and liabilities in the income statement.
2. Non-recurring changes in the fair value of loans and lending commitments, which exclude the impact of related economic hedges, are calculated as follows: for the held for investment category, based on the value of the underlying collateral; and for the held for sale category, based on recently executed transactions, market price quotations, valuation models that incorporate market observable inputs where possible, such as comparable loan or debt prices and CDS spread levels adjusted for any basis difference between cash and derivative instruments, or default recovery analysis where such transactions and quotations are unobservable.

Financial Instruments Not Measured at Fair Value

	At March 31, 2023				
		Fair Value			
$ in millions	Carrying Value	Level 1	Level 2	Level 3	Total
Financial assets					
Cash and cash equivalents	$ 25,501	$ 25,501	$ —	$ —	$ 25,501
Securities purchased under agreement to resell	4,652	—	3,625	1,027	4,652
Investment securities-HTM	25,338	8,626	12,396	1,076	22,098
Loans held for investment	68,011	—	15,310	52,532	67,842
Loans held for sale[1]	6,510	—	4,099	2,413	6,512
Affordable housing tax credit investments	898	—	—	729	729
Loans to affiliate	463	—	463	—	463
Other assets	1,981	—	1,981	—	1,981
Financial liabilities					
Deposits	$ 179,277	$ —	$179,277	$ —	$179,277
Payable to affiliates	651	—	651	—	651
Borrowing from Parent and affiliate	658	—	658	—	658
Accrued expenses and other liabilities	2,297	—	1,938	359	2,297
	Commitment Amount				
Lending commitments[2]	93,875	—	1,144	465	1,608

$ in millions	Carrying Value	Fair Value Level 1	Level 2	Level 3	Total
	At December 31, 2022				
Financial assets					
Cash and cash equivalents	$ 28,457	$ 28,457	$ —	$ —	$ 28,457
Securities purchased under agreement to resell	4,488	—	3,645	843	4,488
Investment securities-HTM	25,584	8,463	12,439	—	20,902
Loans held for investment	66,436	—	15,268	51,082	66,350
Loans held for sale[1]	6,239	—	3,524	2,722	6,246
Affordable housing tax credit investments	922	—	—	779	779
Other assets	1,803	—	1,803	—	1,803
Financial liabilities					
Deposits	$ 177,356	$ —	$177,356	$ —	$177,356
Payable to affiliates	577	—	577	—	577
Borrowing from Parent and affiliate	693	—	693	—	693
Accrued expenses and other liabilities	1,944	—	1,570	374	1,944
	Commitment Amount				
Lending commitments[2]	89,857	—	1,086	469	1,555

1. Includes all loans measured at fair value on a non-recurring basis.
2. Represents Lending commitments accounted for as Held for Investment and Held for Sale. For a further discussion on lending commitments, see Note 12.

Fair Value Option

The Bank has elected the fair value option for certain eligible instruments that are risk managed on a fair value basis to mitigate income statement volatility caused by measurement basis differences between the elected instruments and their associated risk management transactions or to eliminate complexities of applying certain accounting models. Net gain (loss) due to fair value option was $(82) million and $81 million for the current quarter and the prior year quarter, respectively.

Gain (loss) due to changes in instrument-specific credit risk was $(10) million and $(2) million the current quarter and the prior year quarter, respectively. In addition, changes in instrument-specific credit risk increased (decreased) other comprehensive income by $64 million and $(5) million for the current quarter and the prior year quarter, respectively.

For certain loans that are classified as Trading Assets - Corporate and other debt, contractual principal amount was higher than fair value by $115 million and $182 million as of March 31, 2023 and December 31, 2022, respectively.

7. Cash and Cash Equivalents

$ in millions	At March 31, 2023	At December 31, 2022
Cash and due from banks	$ 52	$ 14
Interest bearing deposits with banks	25,449	28,443
Total Cash and cash equivalents	**$ 25,501**	$ 28,457
Restricted cash	$ 11	$ 3

For additional information on cash and cash equivalents, including restricted cash, see Note 2 to the financial statements in the 2022 Annual Report.

8. Collateralized Transactions

Offsetting of Certain Collateralized Transactions

$ in millions	Gross Amounts	Amounts Offset	Balance Sheet Net Amounts	Amounts Not Offset[1]	Net Amounts
	At March 31, 2023				
Assets					
Securities purchased under agreement to resell	**$ 4,652**	**$ —**	**$ 4,652**	**$ (4,609)**	**$ 43**

$ in millions	Gross Amounts	Amounts Offset	Balance Sheet Net Amounts	Amounts Not Offset[1]	Net Amounts
	At December 31, 2022				
Assets					
Securities purchased under agreement to resell	$ 4,488	$ —	$ 4,488	$ (4,463)	$ 25

1. Amounts relate to master netting agreements that have been determined by the Bank to be legally enforceable in the event of default but where certain other criteria are not met in accordance with applicable offsetting accounting guidance.

At March 31, 2023, and December 31, 2022, the fair value of financial instruments received as collateral where the Bank is permitted to sell or repledge the securities was $7.4 billion and $6.7 billion, respectively. No securities had been repledged at either date.

For further discussion of the Bank's collateralized transactions, see Note 2 and Note 8 to the financial statements in the 2022 Annual Report. For information related to offsetting of derivatives, see Note 11.

Other Secured Financings

Other secured financings include the liabilities related to transfers of financial assets that are accounted for consolidated VIEs where the Bank is deemed to be the primary beneficiary. These liabilities are generally payable from the cash flows of the related assets, which are accounted for as Trading assets, see Note 13.

9. Deposits

$ in millions	At March 31, 2023	At December 31, 2022
Savings and demand deposits[1]	$ 152,686	$ 156,914
Time deposits	26,591	20,442
Total	$ 179,277	$ 177,356
Deposits subject to FDIC insurance	$ 131,521	$ 124,763
Deposits not subject to FDIC insurance	$ 47,756	$ 52,593

1. Includes deposits from the Parent and affiliates, see Note 10.

Time Deposit Maturities

$ in millions	At March 31, 2023
2023	$ 11,809
2024	8,560
2025	2,981
2026	1,212
2027	1,094
Thereafter	935
Total	$ 26,591

10. Transactions with Affiliated Companies

Assets and receivables from Parent and affiliated companies

$ in millions	At March 31, 2023	At December 31, 2022
Securities purchased under agreements to resell	$ 2	$ 13
Loans to affiliate	463	447
Receivables from affiliates	115	38
Trading assets, at fair value	25	57
Total	$ 605	$ 555

Liabilities and payables to Parent and affiliated companies

$ in millions	At March 31, 2023	At December 31, 2022
Deposits	$ 9,603	$ 5,527
Borrowings from Parent and affiliate	658	693
Payables to affiliates	651	577
Trading liabilities, at fair value	236	116
Accrued expenses and other liabilities	12	11
Total	$ 11,160	$ 6,924

Revenues and expenses resulting from transactions with Parent and affiliated companies

	Three Months Ended March 31,	
$ in millions	2023	2022
Revenues		
Interest income	$ (138)	$ 212
Non-interest revenues		
Fee income	277	178
Gains and losses on financial assets and liabilities	(1,529)	1,170
Total	$ (1,390)	$ 1,560
Expenses		
Interest expense	(58)	64
Non-interest expenses		
General and administrative	164	149
Compensation and benefits	7	4
Total	$ 113	$ 217

Assets

Securities purchased under agreement to resell were with MS&Co. For further information, see Note 8.

Loans to affiliate were with MSPBNA in accordance with the US Bank Master Funding Agreement, starting March 23, 2022.

Receivables from affiliates were primarily driven by intercompany transactions that occurred in the normal course of business.

Trading assets were primarily driven by outstanding derivative contracts in the normal course of business.

Liabilities

Deposits primarily include overnight deposits from the Parent and affiliates of $9.2 billion and $5.0 billion as of March 31, 2023 and December 31, 2022, respectively. Additionally, the balance includes cash collateral primarily received from the Parent for the purpose of securing credit transactions between the Bank and its affiliates of $0.4 billion and $0.5 billion at March 31, 2023 and at December 31, 2022, respectively.

Borrowings from Parent and affiliate primarily consist of the intercompany loans the Bank received from MSPBNA in accordance with the US Bank Master Funding Agreement, starting October 1, 2021.

Payables to affiliates were primarily driven by intercompany transactions that occurred in the normal course of business. The balance also includes taxes payable to Parent of $516 million and $170 million at March 31, 2023 and December 31, 2022, respectively.

Trading liabilities were primarily driven by outstanding derivative contracts in the normal course of business.

Interest Income and Interest Expense

Interest income and interest expense reflect the impact of designated accounting hedges on AFS Securities and Brokered CDs and net advances from Parent, respectively.

Other Transactions

Fee income primarily consists of fees mainly earned from MS&Co and compensates the Bank for relationship priced loans granted to clients of the affiliate.

Gains and losses on financial assets and liabilities include the effect of CDS with MSIP, MS&Co and MSCS used to economically hedge credit risk on certain loan portfolios.

General and administrative expenses primarily consist of the following:

- Service Level Agreements whereby affiliates provide specialized distribution, national sales and business management services, in connection with Securities-based lending and other facilities. The amount of expenses incurred for these services was $12 million and $14 million in the current and prior year quarters, respectively.
- Service Level Agreements with affiliates to provide information technology services, for which the Bank incurred expenses of $14 million and $13 million in the current and prior year quarters, respectively.
- Service Level Agreements whereby affiliates provide securities and loan processing, credit risk, human resources, finance, tax and other services. The amount of expenses incurred by the Bank for these services was $96 million and $83 million in the current and prior year quarters, respectively.
- Under the Deposit Service Fee Agreement, the Bank pays a service fee to MSSB for certain brokerage accounts; this amounted to $30 million and $42 million during the current and the prior year quarters, respectively.

The Bank receives operational, administrative, and risk management support services from the Bank's affiliates. Certain affiliates charged the Bank for compensation and benefits related to certain employees who primarily supported the Bank. These amounts are included in Compensation and Benefits.

At both March 31, 2023 and December 31, 2022, $1.9 billion in a standby letter of credit was guaranteed by an affiliate.

At both March 31, 2023 and December 31, 2022, the Bank had a commitment with MS&Co to enter into securities purchased under agreements to resell of $3.0 billion, on an intra-day basis. The above commitment had a contractual term of 28 days.

11. Derivative Instruments and Hedging Activities

Fair Values of Derivative Contracts

$ in millions	Bilateral OTC Assets At March 31, 2023	Bilateral OTC Assets At December 31, 2022
Designated as accounting hedges		
Interest rate	**$ 582**	$ 775
Not designated as accounting hedges		
Economic hedges of loans		
Credit	**31**	35
Other derivatives		
Interest rate	**1,046**	1,083
Credit	**215**	192
Foreign exchange	**272**	432
Equity and other	**531**	1,156
Total	**2,095**	2,898
Total gross derivatives	**$ 2,677**	$ 3,673
Amounts offset		
Counterparty netting	**(2,330)**	(2,247)
Cash collateral netting	**(9)**	(1,086)
Total in Trading assets	**$ 338**	$ 340
Amounts not offset[1]		
Financial instruments collateral	**(79)**	—
Net amounts	**$ 259**	$ 340
Net amounts for which master netting or collateral agreements are not in place or may not be legally enforceable	$ 13	$ 11

$ in millions	Bilateral OTC Liabilities At March 31, 2023	Bilateral OTC Liabilities At December 31, 2022
Designated as accounting hedges		
Interest rate	**$ 244**	$ 254
Not designated as accounting hedges		
Economic hedges of loans		
Credit	**318**	231
Other derivatives		
Interest rate	**1,038**	1,067
Credit	**153**	125
Foreign exchange	**356**	803
Equity	**758**	309
Total	**2,623**	2,535
Total gross derivatives	**$ 2,867**	$ 2,789
Amounts offset		
Counterparty netting	**(2,330)**	(2,247)
Cash collateral netting	**(208)**	(346)
Total in Trading liabilities	**$ 329**	$ 196
Amounts not offset[1]		
Financial instruments collateral	**—**	—
Net amounts	**$ 329**	$ 196
Net amounts for which master netting or collateral agreements are not in place or may not be legally enforceable	$ 3	$ 12

1. Amounts relate to master netting agreements and collateral agreements, that have been determined by the Bank to be legally enforceable in the event of default but where certain other criteria are not met in accordance with applicable offsetting accounting guidance.

Notional of Derivative Contracts

$ in millions	Bilateral OTC Assets At March 31, 2023	At December 31, 2022
Designated as accounting hedges		
Interest rate	**$ 15,068**	$ 15,446
Not designated as accounting hedges		
Economic hedges of loans		
Credit	**974**	1,953
Other derivatives		
Interest rate	**18,939**	18,777
Credit	**3,610**	3,403
Foreign exchange	**15,789**	12,530
Equity contracts and other	**9,952**	16,302
Total	**49,264**	52,965
Total gross derivatives	**$ 64,332**	$ 68,411

$ in millions	Liabilities at March 31, 2023 Bilateral OTC	Exchange-Traded	Total
Designated as accounting hedges			
Interest rate	**$ 10,816**	**$ —**	**$ 10,816**
Not designated as accounting hedges			
Economic hedges of loans			
Credit	**12,761**	**—**	**12,761**
Other derivatives			
Interest rate	**16,784**	**1,196**	**17,980**
Credit	**3,123**	**—**	**3,123**
Foreign exchange	**20,104**	**—**	**20,104**
Equity contracts	**22,557**	**—**	**22,557**
Total	**75,329**	**1,196**	**76,525**
Total gross derivatives	**$ 86,145**	**$ 1,196**	**$ 87,341**

$ in millions	Liabilities at December 31, 2022 Bilateral OTC	Exchange-Traded	Total
Designated as accounting hedges			
Interest rate	$ 8,529	$ —	$ 8,529
Not designated as accounting hedges			
Economic hedges of loans			
Credit	10,429	—	10,429
Other derivatives			
Interest rate	14,193	1,041	15,234
Credit	1,598	—	1,598
Foreign exchange	19,077	—	19,077
Equity contracts	10,637	—	10,637
Total	55,934	1,041	56,975
Total gross derivatives	$ 64,463	$ 1,041	$ 65,504

The notional amounts of derivative contracts generally overstate the Bank's exposure. In most circumstances, notional amounts are used only as a reference point from which to calculate amounts owed between the parties to the contract. Furthermore, notional amounts do not reflect the benefit of legally enforceable netting arrangements or risk mitigating transactions.

For a discussion of the Bank's derivative instruments and hedging activities, see Note 11 to the financial statements in the 2022 Annual Report.

Gains (Losses) on Accounting Hedges

$ in millions	Three Months Ended March 31, 2023	2022
Fair value hedges – Recognized in Interest income		
Interest rate contracts	**$ (220)**	$ 218
Investment Securities - AFS	**225**	(218)
Fair value hedges – Recognized in Interest expense		
Interest rate contracts	**$ 50**	$ (81)
Deposits	**(51)**	81
Cash flow hedges – Interest rate contracts[1]		
Recognized in OCI	**$ 7**	$ —
Less: Realized gains (losses) (pre-tax) reclassified from AOCI to interest income	**(1)**	—
Net change in cash flow hedges included within AOCI	**8**	—

1. For the current quarter ended March 31, 2023, there were no forecasted transactions that failed to occur. The net gains (losses) associated with cash flow hedges expected to be reclassified from AOCI within 12 months as of March 31, 2023 is approximately $(7) million. The maximum length of time over which forecasted cash flows are hedged is 2 years.

Changes in Accumulated Other Comprehensive Income (Loss) by component, net of tax:

$ in millions	2023 Changes in Net Unrealized Gains (Losses) on Cash Flow Hedges
Balance at December 31, 2022	$ (4)
Other comprehensive income (loss) before reclassifications	**6**
Amounts reclassified from AOCI	**1**
Net other comprehensive income (loss) during the period	**7**
Balance at March 31, 2023	**$ 3**

Fair Value Hedges – Hedged Items

$ in millions	At March 31, 2023	At December 31, 2022
Investment securities – AFS		
Amortized cost basis currently or previously hedged	**$ 19,905**	$ 20,252
Basis adjustments included in amortized cost[1]	**(475)**	$ (795)
Deposits		
Carrying amount currently or previously hedged	**5,940**	$ 3,380
Basis adjustments included in carrying amounts[1]	**$ (61)**	$ (112)

1. Hedge accounting basis adjustments are primarily related to outstanding hedges.

Gains (Losses) on Economic Hedges of Loans

$ in millions	Three Months Ended March 31, 2023	2022
Recognized in Gains (losses) on Lending Hedges of Loans		
Credit[1]	**$ (87)**	$ 16

1. Amounts related to hedges of certain held-for-investment and held-for-sale loans.

The table below summarizes realized and unrealized gains and losses included in gains or losses on financial assets and liabilities in the income statement. These revenues are related to derivative and non-derivative financial instruments, and primarily result from the Bank's trading activities. Revenues below exclude impacts realized from AFS securities, fund investments, loans, structured CDs, and hedges. The Bank generally utilizes financial instruments across a variety of product types in connection with its market-making and related risk management strategies. Accordingly, the gains and losses presented below are not representative of the manner in which the Bank manages its business activities and are prepared in a manner similar to the presentation of gains and losses from financial assets and liabilities for regulatory reporting purposes.

Gains and Losses on Financial Assets and Liabilities

$ in millions	Three Months Ended March 31, 2023	Three Months Ended March 31, 2022
Foreign exchange	$ —	$ 1
Equity[1]	207	64
Credit	14	16
Total	**$ 221**	$ 81

1. Dividend income is included within equity contracts.

Credit Derivatives

The Bank enters into credit default swaps to hedge the credit risk on certain investments, loan portfolios, and letters of credit. In order to economically hedge loans and lending commitments, the Bank may purchase and sell credit protection with identical underlying references. The Bank does not sell credit protection on an underlying reference unless it has also purchased protection on the underlying reference and does not ever sell protection in excess of the purchased protection on that underlying reference. Thus, where the Bank is a purchaser and seller of protection on an identical underlying reference, the Bank is always a net purchaser of protection.

Protection Purchased with CDS

$ in millions	Notional At March 31, 2023	Notional At December 31, 2022
Single name	$ 13,882	$ 12,212
Index and basket	1,180	1,370
Total	**$ 15,062**	$ 13,582

$ in millions	Fair Value Asset (Liability) At March 31, 2023	Fair Value Asset (Liability) At December 31, 2022
Single name	$ (307)	$ (215)
Index and basket	73	44
Total	**$ (234)**	$ (171)

The fair value amounts as shown in the previous tables are prior to cash collateral or counterparty netting.

Maximum Potential Payout/Notional of Credit Protection Sold[1]

$ in millions	Years to Maturity at March 31, 2023: < 1	1-3	3-5	Over 5	Total
Index and basket CDS Non-investment Grade	$ —	$ —	$ 180	$ 845	$ 1,025
Other credit contracts	—	—	—	2,490	2,490
Total credit protection sold	**$ —**	**$ —**	**$ 180**	**$ 3,335**	**$ 3,515**
CDS protection sold with identical protection purchased					$ 1,025

$ in millions	Years to Maturity at December 31, 2022: <1	1-3	3-5	Over 5	Total
Index and basket CDS Non-investment Grade	$ —	$ —	$ —	$ 715	$ 715
Other credit contracts	—	—	—	2,487	2,487
Total credit protection sold	$ —	$ —	$ —	$ 3,202	$ 3,202
CDS protection sold with identical protection purchased					$ 715

1. Investment grade/non-investment grade determination is based on the internal credit rating of the reference obligation. Internal credit ratings serve as the CRM's assessment of credit risk and the basis for a comprehensive credit limits framework used to control credit risk. The Bank uses quantitative models and judgment to estimate the various risk parameters related to each obligor.

Fair Value Assets (Liability) of Credit Protection Sold[1,2,3]

$ in millions	At March 31, 2023	At December 31, 2022
Index and basket CDS Non-investment Grade	$ (66)	$ (38)
Other credit contracts	155	164
Total credit protection sold	89	126
CDS protection sold with identical protection purchased	$ (66)	$ (38)

1. Investment grade/non-investment grade determination is based on the internal credit rating of the reference obligation. Internal credit ratings serve as the CRM's assessment of credit risk and the basis for a comprehensive credit limits framework used to control credit risk. The Bank uses quantitative models and judgment to estimate the various risk parameters related to each obligor.
2. Fair value amounts are shown on a gross basis prior to cash collateral or counterparty netting.
3. Fair value amounts of certain credit default swaps where the Bank sold protection have an asset carrying value because credit spreads of the underlying reference entity or entities tightened during the terms of the contracts.

12. Commitments, Contingencies and Guarantees

Commitments

$ in millions	Years to Maturity at March 31, 2023 Less than 1	1-3	3-5	Over 5	Total
Lending:					
Corporate	$ 13,320	$ 16,581	$ 41,836	$ 660	$ 72,397
Secured lending facilities	7,431	5,970	2,902	1,027	17,330
Commercial and Residential real estate	163	198	19	—	380
Securities-based lending and Other	3,020	653	73	363	4,109
Reverse repurchase commitment[1]	3,000	—	—	—	3,000
Forward-starting secured financing receivables[2]	272	—	—	—	272
Central counterparty	300	—	—	—	300
Investment activities	285	39	35	—	359
Total	$ 27,791	$ 23,441	$ 44,865	$ 2,050	$ 98,147
Lending commitments participated to third parties					$ 5,115

1. For further information, see Note 10.
2. Forward-starting secured financing receivables are generally settled within three-business days.

Since commitments associated with these instruments may expire unused, the amounts shown do not necessarily reflect the actual future funding requirements.

For a further description of these commitments, refer to Note 12 to the financial statements in the 2022 Annual Report.

Contingencies

Legal

In the normal course of business, the Bank may be named, from time to time, as a defendant in various legal actions, including arbitrations, class actions and other litigation, arising in connection with its activities as a national banking association and an affiliate of a global diversified financial institution. Certain of the actual or threatened legal actions may include claims for substantial compensatory and/or punitive damages or claims for indeterminate amounts of damages.

The Bank is also involved, from time to time, in other reviews, investigations and proceedings (both formal and informal) by governmental or other regulatory agencies regarding the Bank's business and accounting and operational matters, certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief.

The Bank contests liability and/or the amount of damages as appropriate in each pending matter. Where available information indicates that it is probable a liability had been incurred at the date of the financial statements and the Bank can reasonably estimate the amount of that loss, the Bank accrues the estimated loss by a charge to income.

In many proceedings and investigations, however, it is inherently difficult to determine whether any loss is probable or even possible or to estimate the amount of any loss. In addition, even where a loss is possible or an exposure to loss exists in excess of the liability already accrued with respect to a previously recognized loss contingency, it is not always possible to reasonably estimate the size of the possible loss or range of loss, particularly for proceedings and investigations where the factual record is being developed or contested or where plaintiffs or government entities seek substantial or indeterminate damages, restitution, disgorgement or penalties. Numerous issues may need to be resolved before a loss or additional loss, or range of loss or additional range of loss, can be reasonably estimated for a proceeding or investigation, including through potentially lengthy discovery and determination of important factual matters, determination of issues related to class certification and the calculation of damages or other relief, and consideration of novel or unsettled legal questions relevant to the proceedings or investigations in question.

For certain other legal proceedings and investigations, the Bank can estimate reasonably possible losses, additional losses, ranges of loss or ranges of additional loss in excess of amounts accrued but does not believe, based on current knowledge and after consultation with counsel, that such losses could have a material adverse effect on the Bank's financial statements as a whole.

Subject to the foregoing, the Bank believes, based on current knowledge and after consultation with counsel, that the outcome of such proceedings and investigations will not have a material adverse effect on the financial condition of the Bank, although the outcome of such proceedings or investigations could be material to the Bank's operating results and cash flows for a particular period depending on, among other things, the level of the Bank's revenues or income for such period.

Guarantees

$ in millions	At March 31, 2023 Maximum Potential Payout/Notional of Obligations by Years to Maturity Less than 1	1-3	3-5	Over 5	Carrying Amount Asset (Liability)
Letters of credit[1]	$ 908	$ 192	$ 692	$ 2,490	$ 156
Liquidity facilities	2,593	—	—	—	(2)
Total	$ 3,501	$ 192	$ 692	$ 2,490	$ 154

1. These amounts include certain issued standby letters of credit participated to third parties and affiliates, totaling $2.3 billion of notional and collateral/recourse, due to the nature of the Bank's obligations under these arrangements. As of March 31, 2023, the carrying amount of standby letters of credit and other financial guarantees issued includes allowance for credit losses of $10 million.

For more information on the nature of the obligations and related business activities for our guarantees, see Note 12 to the financial statements in the 2022 Annual Report.

13. Variable Interest Entities

As of March 31, 2023, the Bank consolidated a VIE with assets and liabilities of $577 million and $537 million, respectively. As of December 31, 2022, the Bank consolidated a VIE with assets and liabilities of $255 million and $241 million, respectively.

The following tables present information about non-consolidated VIEs in which the Bank had variable interests at March 31, 2023 and December 31, 2022. The tables include all VIEs in which the Bank had determined that its maximum exposure to loss is greater than specific thresholds or meet certain other criteria.

Non-consolidated VIEs

	At March 31, 2023			
$ in millions	MABS[1]	MTOB	OSF	Other[2]
VIE assets (UPB)	**$ 96,621**	**$ 3,688**	**$ 893**	**$ 28,699**
Maximum exposure to loss[3]				
Debt and equity interests	**$ 12,386**	**$ —**	**$ 929**	**$ 6,934**
Derivative and other contracts	**—**	**2,593**	**—**	**—**
Commitments, guarantees and other	**1,232**	**—**	**—**	**882**
Total	**$ 13,618**	**$ 2,593**	**$ 929**	**$ 7,816**
Carrying value of variable interest - Assets				
Debt and equity interests	**$ 12,386**	**$ —**	**$ 852**	**$ 6,934**
Derivative and other contracts	**—**	**3**	**—**	**—**
Total	**$ 12,386**	**$ 3**	**$ 852**	**$ 6,934**
Additional VIE assets owned[4]				**$ 6,270**
Carrying value of variable interest - Liabilities				
Derivative and other contracts	**$ —**	**$ 5**	**$ —**	**$ —**

MTOB—Municipal tender option bonds
MABS—Mortgage- and asset-backed securities
OSF—Other structured financing

1. MABS include VIE assets as follows: $62.8 billion of commercial mortgages; $24.8 billion of U.S agency collateralized mortgage obligations; $4.5 billion of residential mortgages; and $4.5 billion of other consumer or commercial loans.
   MABS include VIE debt and equity interests as follows: $4.0 billion of commercial mortgages; $3.9 billion of U.S agency collateralized mortgage obligations; $3.4 billion of other consumer or commercial loans; and $1.1 billion of residential mortgages.
2. Amounts primarily include transactions backed by commercial real estate property.
3. Where notional amounts are utilized in quantifying the maximum exposure related to derivatives, such amounts do not reflect changes in fair value recorded by the Bank.
4. Additional VIE assets owned represents the carrying value of total exposure to non-consolidated VIEs for which the maximum exposure to loss is less than specific thresholds, primarily interests issued by securitization SPEs. The Bank's maximum exposure to loss generally equals the fair value of the assets owned. These assets are primarily included in Investment securities and are measured at fair value (see Note 6). The Bank does not provide additional support in these transactions through contractual facilities, guarantees or similar derivatives.

	At December 31, 2022			
$ in millions	MABS[1]	MTOB	OSF	Other[2]
VIE assets (UPB)	$ 86,994	$ 4,632	$ 893	$ 27,711
Maximum exposure to loss[3]				
Debt and equity interests	$ 9,111	$ —	$ 944	$ 7,162
Derivative and other contracts	—	3,200	—	—
Commitments, guarantees and other	674	—	—	1,404
Total	$ 9,785	$ 3,200	$ 944	$ 8,566
Carrying value of variable interest - Assets				
Debt and equity interests	$ 9,111	$ —	$ 874	$ 7,162
Derivative and other contracts	—	3	—	—
Total	$ 9,111	$ 3	$ 874	$ 7,162
Additional VIE assets owned[4]				$ 5,495
Carrying value of variable interest - Liabilities				
Derivative and other contracts	$ —	$ 3	$ —	$ —

1. MABS include VIE assets as follows: $61.4 billion of commercial mortgages; $17.9 billion of U.S agency collateralized mortgage obligations; $4.7 billion of residential mortgages; and $3.0 billion of other consumer or commercial loans.
   MABS include VIE debt and equity interests as follows: $3.7 billion of commercial mortgages; $2.8 billion of U.S agency collateralized mortgage obligations; $1.5 billion of other consumer or commercial loans; and $1.1 billion of residential mortgages.
2. Amounts primarily include transactions backed by commercial real estate property.
3. Where notional amounts are utilized in quantifying the maximum exposure related to derivatives, such amounts do not reflect changes in fair value recorded by the Bank.
4. Additional VIE assets owned represents the carrying value of total exposure to non-consolidated VIEs for which the maximum exposure to loss is less than specific thresholds, primarily interests issued by securitization SPEs. The Bank's maximum exposure to loss generally equals the fair value of the assets owned. These assets are primarily included in Investment securities and are measured at fair value (see Note 6). The Bank does not provide additional support in these transactions through contractual facilities, guarantees or similar derivatives.

The Bank's maximum exposure to loss often differs from the carrying value of the variable interest held by the Bank. The maximum exposure to loss is dependent on the nature of the Bank's variable interest in the VIEs and is limited to the notional amounts of certain liquidity facilities the Bank has provided to the VIEs. Liabilities issued by VIEs generally are non-recourse to the Bank.

The Bank's maximum exposure to loss in the previous tables does not include the offsetting benefit of hedges or any reductions associated with the amount of collateral held as part of transaction with the VIE or any party to the VIE directly against a specific exposure to loss.

Transferred Assets with Continuing Involvement

	At March 31, 2023		At December 31, 2022	
$ in millions	RML	CML	RML	CML
SPE assets (UPB)	**$ 334**	**$ 65,159**	$ 341	$ 62,986
Retained interests:				
Investment grade[1]	**—**	**888**	17	899
Non-investment grade	**17**	**334**	—	272
Total	**$ 17**	**$ 1,222**	$ 17	$ 1,172

RML—Residential mortgage loans
CML—Commercial mortgage loans

1. Includes zero Level 3 assets at March 31, 2023 and December 31, 2022..

14. Regulatory Requirements

Regulatory Capital Framework and Requirements

For a discussion of the Bank's regulatory capital framework, see Note 14 to the financial statements in the 2022 Annual Report.

The Bank is required to maintain minimum risk-based and leverage-based capital ratios under regulatory capital requirements. A summary of the calculations of regulatory capital and RWAs follows.

Risk-Based Regulatory Capital. Risk-based capital ratio requirements apply to Common Equity Tier 1 capital, Tier 1 capital and Total capital (which includes Tier 2 capital), each as a percentage of RWA, and consist of regulatory minimum required ratios plus the Bank's capital buffer requirement. Capital requirements require certain adjustments to, and deductions from, capital for purposes of determining these ratios. At March 31, 2023 and December 31, 2022, the difference between the actual and required ratios were lower under the Standardized Approach.

CECL Deferral. Beginning on January 1, 2020, we elected to defer the effect of the adoption of CECL on our risk-based and leverage-based capital amounts and ratios, as well as our RWA, adjusted average assets and supplementary leverage exposure calculations, over a five-year transition period. The deferral impacts began to phase in at 25% per year from January 1, 2022 and are phased-in at 50% from January 1, 2023. The deferral impacts will become fully phased-in beginning on January 1, 2025.

Capital Buffer Requirements.

The capital buffer requirement represents the amount of Common Equity Tier 1 capital the Bank must maintain above the minimum risk-based capital requirements in order to avoid restrictions on the Bank's ability to make capital distributions, including the payment of dividends, and to pay discretionary bonuses to executive officers. The capital buffer requirements computed under the standardized approaches for calculating credit risk and market RWA ("Standardized Approach") and the Bank's capital buffer requirement computed under the applicable advanced approaches for calculating credit risk, market risk and operational risk RWA ("Advanced Approach") is equal to the sum of the 2.5% capital conservation buffer and CCyB. The CCyB can be set up to 2.5% but is currently set by U.S. banking agencies at zero.

Risk-Based Regulatory Capital Ratio Requirements

		At March 31, 2023 and December 31, 2022	
	Regulatory Minimum	Standardized	Advanced
Required ratios[1]			
Common Equity Tier 1 capital ratio	**4.5 %**	**7.0 %**	**7.0 %**
Tier 1 capital ratio	**6.0 %**	**8.5 %**	**8.5 %**
Total capital ratio	**8.0 %**	**10.5 %**	**10.5 %**

1. Required ratios represent the regulatory minimum plus the capital buffer requirement.

The Bank's Regulatory Capital and Capital Ratios

$ in millions	Well-Capitalized Requirements[1]	Required Ratio[2]	**At March 31, 2023**	At December 31, 2022
Risk-based capital				
Common Equity Tier 1 capital			**$ 21,485**	$ 20,043
Tier 1 capital			**21,485**	20,043
Total capital			**22,221**	20,694
Total RWA			**99,818**	97,931
Common Equity Tier 1 capital ratio	**6.5 %**	**7.0 %**	**21.5 %**	20.5 %
Tier 1 capital ratio	**8.0 %**	**8.5 %**	**21.5 %**	20.5 %
Total capital ratio	**10.0 %**	**10.5 %**	**22.3 %**	21.1 %

$ in millions	Well-Capitalized Requirements[1]	Required Ratio[2]	**At March 31, 2023**	At December 31, 2022
Leverage-based capital				
Adjusted average assets[3]			**$ 205,393**	$ 197,711
Tier 1 leverage ratio	**5.0 %**	**4.0 %**	**10.5 %**	10.1 %
Supplementary leverage exposure[4]			**$ 257,940**	$ 248,860
SLR	**6.0 %**	**3.0 %**	**8.3 %**	8.1 %

1. The requirements to remain "well capitalized" under the PCA framework.
2. Required ratios are inclusive of any buffers applicable as of the date presented.
3. Adjusted average assets represents the denominator of the Tier 1 leverage ratio and is composed of the average daily balance of consolidated on-balance sheet assets for the quarters ending on the respective balance sheet dates, reduced by intangible assets, certain deferred tax assets and other capital deductions.
4. Supplementary leverage exposure is the sum of Adjusted average assets used in the Tier 1 leverage ratio and other adjustments, primarily: (i) for derivatives, potential future exposure and the effective notional principal amount of sold credit protection offset by qualifying purchased credit protection; (ii) the counterparty credit risk for repo-style transactions; and (iii) the credit equivalent amount for off-balance sheet exposures.

Additionally, the Bank is conditionally registered with the SEC as a security-based swap dealer and is provisionally registered with the CFTC as a swap dealer. However, as we are prudentially regulated as a bank, our capital requirements continue to be determined by the OCC.

15. Income Taxes

The Bank, through its inclusion in the return of the Parent, is routinely under examination by the IRS and other tax authorities in certain states and localities in which the Bank has significant business operations, such as New York.

The Bank believes that the resolution of these tax examinations will not have a material effect on the annual financial statements, although a resolution could have a material impact in the income statement and on the effective tax rate for any period in which such resolutions occur.

It is reasonably possible that significant changes in the balance of unrecognized tax benefits may occur within the next 12 months. At this time, however, it is not possible to reasonably estimate the expected change to the total amount of unrecognized tax benefits and the impact on the Bank's effective tax rate over the next 12 months.

Average Balances and Interest Rates and Net Interest Income

	Three Months Ended March 31,					
	2023			2022		
$ in millions	Average Daily Balance	Interest	Annualized Average Rate	Average Daily Balance	Interest	Annualized Average Rate
Interest earning assets[1]						
Deposits with banks	**$ 26,328**	**$ 300**	**4.6 %**	$ 28,314	$ 14	0.2 %
Investment securities	**73,607**	**481**	**2.7 %**	71,291	335	1.9 %
Securities purchased under agreements to resell	**4,538**	**62**	**5.5 %**	4,235	18	1.7 %
Loans	**78,800**	**1,237**	**6.4 %**	76,893	464	2.4 %
Other	**1,291**	**16**	**n/m**	732	2	n/m
Total	**$184,564**	**$ 2,096**	**4.6 %**	$181,465	$ 833	1.9 %
Interest bearing liabilities[1]						
Deposits and Other[2]	**$179,813**	**$ 758**	**1.7 %**	$176,409	$ 33	0.1 %
Total	**$179,813**	**$ 758**	**1.7 %**	$176,409	$ 33	0.1 %
Net interest income and net interest rate spread		**$ 1,338**	**2.9 %**		$ 800	1.8 %

1. Amounts include primarily U.S. balances.
2. Includes the impact of net advances from and payables to the Parent and affiliates.
3. Includes average deposit balances of $178.4 billion and $174.2 billion for the quarter ended March 31, 2023 and March 31, 2022, respectively.

Ratios

	Three Months Ended March 31,	
	2023	2022
ROE[1]	**22.9 %**	14.9 %

1. ROE represents net income as a percentage of average equity.

Annual Report	Annual report for the year ended December 31, 2022
ABS	Asset-backed securities
ACL	Allowance for credit losses
AFS	Available-for-sale
AML	Anti-money laundering
AOCI	Accumulated other comprehensive income (loss)
Balance sheet	Consolidated balance sheet
bps	Basis points; one basis point equals 1/100th of 1%
BSA	Bank Secrecy Act
Cash flow statement	Consolidated cash flow statement
CCyB	Countercyclical capital buffer
CDs	Certificates of deposit
CDS	Credit default swaps
CECL	Current Expected Credit Losses, as calculated under the Financial Instruments—Credit Losses accounting update
CFTC	U.S. Commodity Futures Trading Commission
CMBS	Commercial mortgage-backed securities
CMO	Collateralized mortgage obligation(s)
CRM	Credit Risk Management Department
FDIC	Federal Deposit Insurance Corporation
FFELP	Federal Family Education Loan Program
Financial statement	Consolidated financial statements
FVO	Fair value option
HFI	Held-for-investment
HFS	Held-for-sale
HQLA	High-quality liquid assets
HTM	Held-to-maturity
Income statement	Consolidated income statement
IRS	Internal Revenue Service
LCR	Liquidity coverage ratio, as adopted by the U.S. banking agencies
LIBOR	London Interbank Offered Rate
LTV	Loan-to-value
MS&Co.	Morgan Stanley & Co. LLC
MSCS	Morgan Stanley Capital Services LLC
MSIP	Morgan Stanley & Co. International plc
MSDHI	Morgan Stanley Domestic Holdings, Inc.
MSPBNA	Morgan Stanley Private Bank, National Association
MSSB	Morgan Stanley Smith Barney LLC
N/A	Not Applicable
N/M	Not Meaningful
NAV	Net asset value
NSFR	Net stable funding ratio, as adopted by the U.S. banking agencies
OCC	Office of the Comptroller of the Currency
OCI	Other comprehensive income (loss)
OFAC	Office of Foreign Assets Control
OTC	Over-the-counter
RSU	Restricted stock units
RWA	Risk-weighted assets
SEC	U.S. Securities and Exchange Commission
SLR	Supplementary leverage ratio
SOFR	Secured Overnight Financing Rate
S&P	Standard & Poor’s
SPE	Special purpose entity
TDR	Troubled debt restructuring
U.K.	United Kingdom
UPB	Unpaid principal balance
U.S.	United States of America
U.S. GAAP	Accounting principles generally accepted in the United States of America
VaR	Value-at-Risk
VIE	Variable interest entities

Risk Factors

For a discussion of the risk factors affecting the Bank, see "Risk Factors" in the 2022 Annual Report.